D2D160-CE02-11

AC centrifugal fan

forward curved, dual inlet

with housing and angle bracket

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Nominal data

Type	**D2D160-CE02-11**
Motor	**M2D074-LA**

Phase		3~	3~	3~	3~	3~	3~
Nominal voltage	VAC	230	230	230	400	400	400
Connection		Δ	Δ	Δ	Y	Y	Y
Frequency	Hz	50	60	60	50	60	60
Type of data definition		ml	ml	ml	ml	ml	ml
Valid for approval / standard		CE	CE	CE	CE	CE	CE
Speed (rpm)	min^{-1}	2700	2960	3050	2700	3050	2960
Power input	W	700	1055	950	700	950	1055
Current draw	A	1.9	2.82	2.6	1.1	1.5	1.63
Min. back pressure	Pa	400	500	580	400	580	500
Min. ambient temperature	°C	-25	-25	-25	-25	-25	-25
Max. ambient temperature	°C	90	40	55	90	55	40
Starting current	A	9.25	9.6	9.6	5.34	5.54	5.54

ml = Max. load · me = Max. efficiency · fa = Running at free air · cs = Customer specs · cu = Customer unit
Subject to alterations

Data in accordance with ecodesign regulation EU 327/2011 (EN 17166)

		Actual	Request 2015
01 Overall efficiency η_{es}	%	40.2	35.4
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		48.8	44
05 Variable speed drive		No	

09 Power input P_e	kW	0.44
09 Air flow q_v	m^3/h	1135
09 Pressure increase p_{fs}	Pa	566
10 Speed (rpm) n	min^{-1}	2835
11 Specific ratio*		1.01

Data definition with optimum efficiency.
The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.

* Specific ratio = 1 + p_{fs} / 100 000 Pa

LU-203802

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Technical features

Mass	10.9 kg
Size	160 mm
Motor size	74
Surface of rotor	Coated in black
Material of impeller	Sheet steel, galvanised
Housing material	Sheet steel, galvanised
Material of guard grille	Steel, coated in white aluminium plastic (RAL 9006)
Motor suspension	Motor mounted anti-vibration on both sides
Direction of rotation	Counter-clockwise, seen on rotor
Type of protection	IP00
Insulation class	"F"
Humidity (F) / environmental protection class (H)	H1
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible ambient motor temp. (transp./storage)	- 40 °C
Mounting position	Any
Condensation drainage holes	None, open rotor
Operation mode	S1
Motor bearing	Ball bearing
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	< 0.75 mA
Electrical connection	Connector with connection line
Motor protection	Thermal overload protector (TOP) brought out, basic insulation
Cable exit	Axial
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60034-1; EN 60204-1; EN 60335-1; CE
Approval	CSA C22.2 no. 100; CCC; UL 1004-1

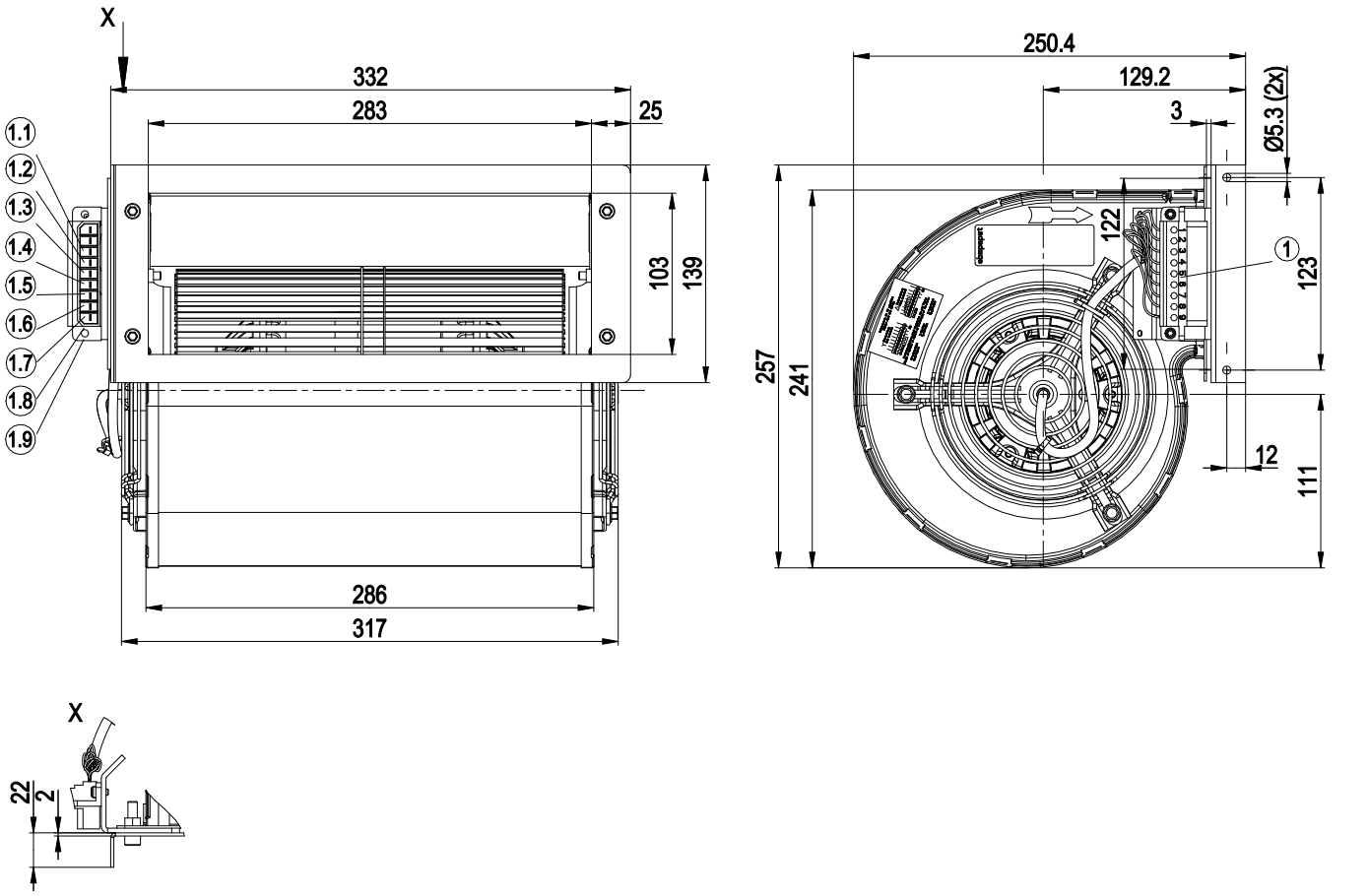
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Product drawing



1	9-pole Weidmüller strip 1612160000
1.1	black
1.2	blue
1.3	brown
1.4	grey (TOP)
1.5	FE (green/yellow)
1.6	grey (TOP)
1.7	green
1.8	white
1.9	yellow

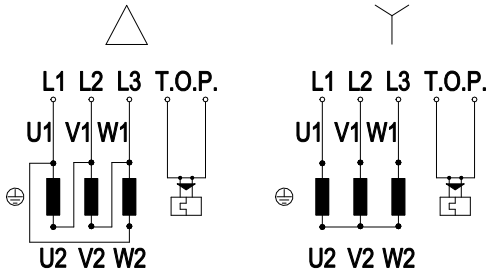
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Connection screen



Note: Direction of rotation changes when two phases are reversed

Δ	Delta-connection	Y	Star connection	L1	black
L2	blue	L3	brown	U1	black
V1	blue	W1	brown	U2	green
V2	white	W2	yellow	TOP	grey

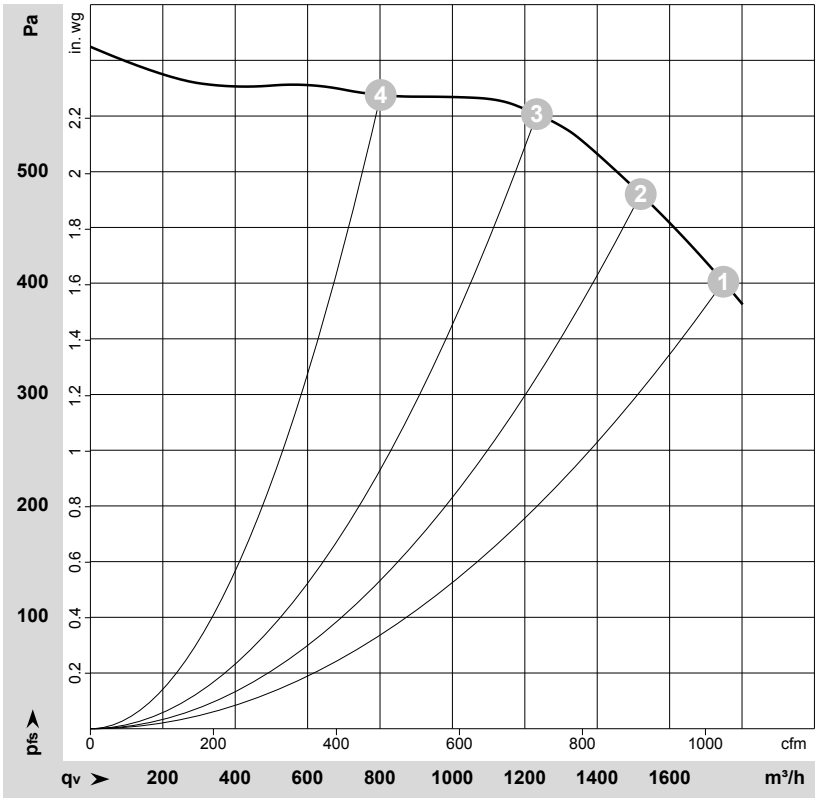
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Charts: Air flow 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-203802-1

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

	Conn.	U	f	n	P_e	I	LpA_{in}	LwA_{in}	q_V	p_{fs}	q_V	p_{fs}
		V	Hz	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa	cfm	in. wg
1	Y	400	50	2700	700	1.10	69	81	1750	400	1030	1.61
2	Y	400	50	2760	597	1.05	68	80	1520	480	895	1.93
3	Y	400	50	2815	479	0.90	67	79	1235	550	725	2.21
4	Y	400	50	2870	352	0.74	68	79	800	565	470	2.27

Conn. = Connection · U = Supply voltage · f = Frequency · n = Speed (rpm) · P_e = Power input · I = Current draw · LpA_{in} = Sound pressure level inlet side · LwA_{in} = Sound power level inlet side
q_V = Air flow · p_{fs} = Pressure increase

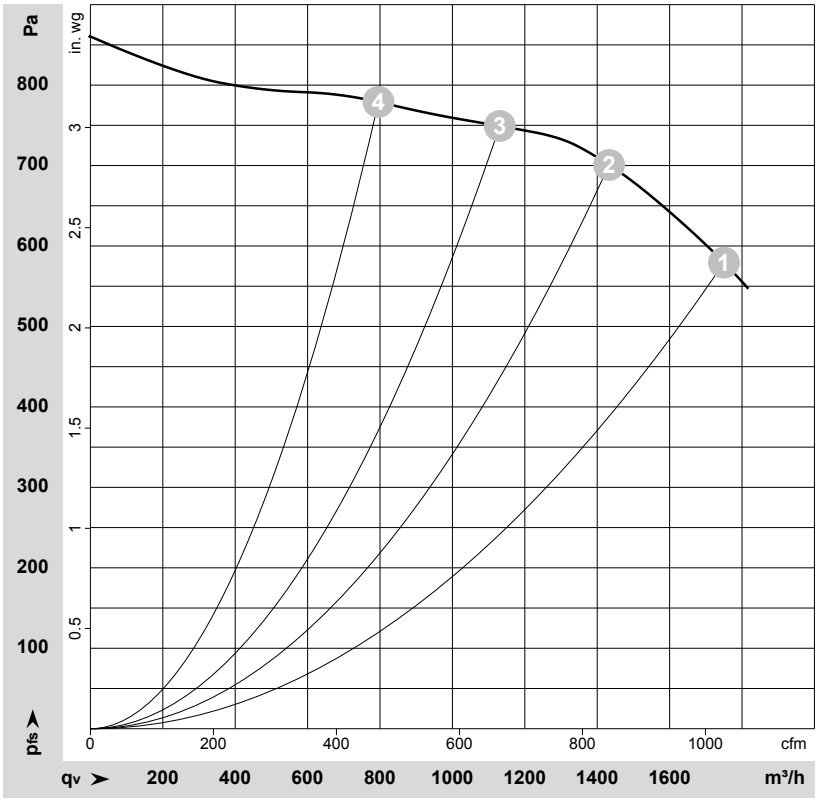
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Charts: Air flow 60 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-203859-1

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

	Conn.	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	Y	400	60	3050	950	1.50	1750	580	1030	2.33
2	Y	400	60	3175	782	1.26	1435	700	845	2.81
3	Y	400	60	3275	637	1.05	1130	750	665	3.01
4	Y	400	60	3340	523	0.88	795	780	470	3.13

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

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