D4D250-BA02-01

AC centrifugal fan

forward curved, dual inlet

with housing (flange)

D4D250-BA02-01 ebmpapst Datasheet
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County court Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen
County court Stuttgart · HRB 590142

Nominal data

Type	**D4D250-BA02-01**
Motor	**M4D094-LA**

Phase		3~	3~
Nominal voltage	VAC	400	400
Connection		Y	Y
Frequency	Hz	50	60
Type of data definition		fa	ml
Valid for approval / standard		CE	CE
Speed (rpm)	min^{-1}	1240	1410
Power input	W	1140	1210
Current draw	A	2.1	2.2
Min. back pressure	Pa	0	250
Min. ambient temperature	°C	-40	-40
Max. ambient temperature	°C	60	45
Starting current	A	4.6	4

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}	%	40.4	35.9
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		48.5	44
05 Variable speed drive		No	

09 Power input P_e	kW	0.52
09 Air flow q_v	m^3/h	2005
09 Pressure increase p_{fs}	Pa	381
10 Speed (rpm) n	min^{-1}	1405
11 Specific ratio*		1.00

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-73522

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Technical features

Mass	17.3 kg
Size	250 mm
Motor size	94
Material of impeller	Sendzimir galvanized sheet steel
Housing material	Sendzimir galvanized sheet steel
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP20
Insulation class	"F"
Humidity (F) / environmental protection class (H)	H0 - dry environment
Mounting position	Any
Operation mode	Continuous operation (S1)
Motor bearing	Ball bearing
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	< 0.75 mA
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 (2010); CE
Approval	CCC; EAC

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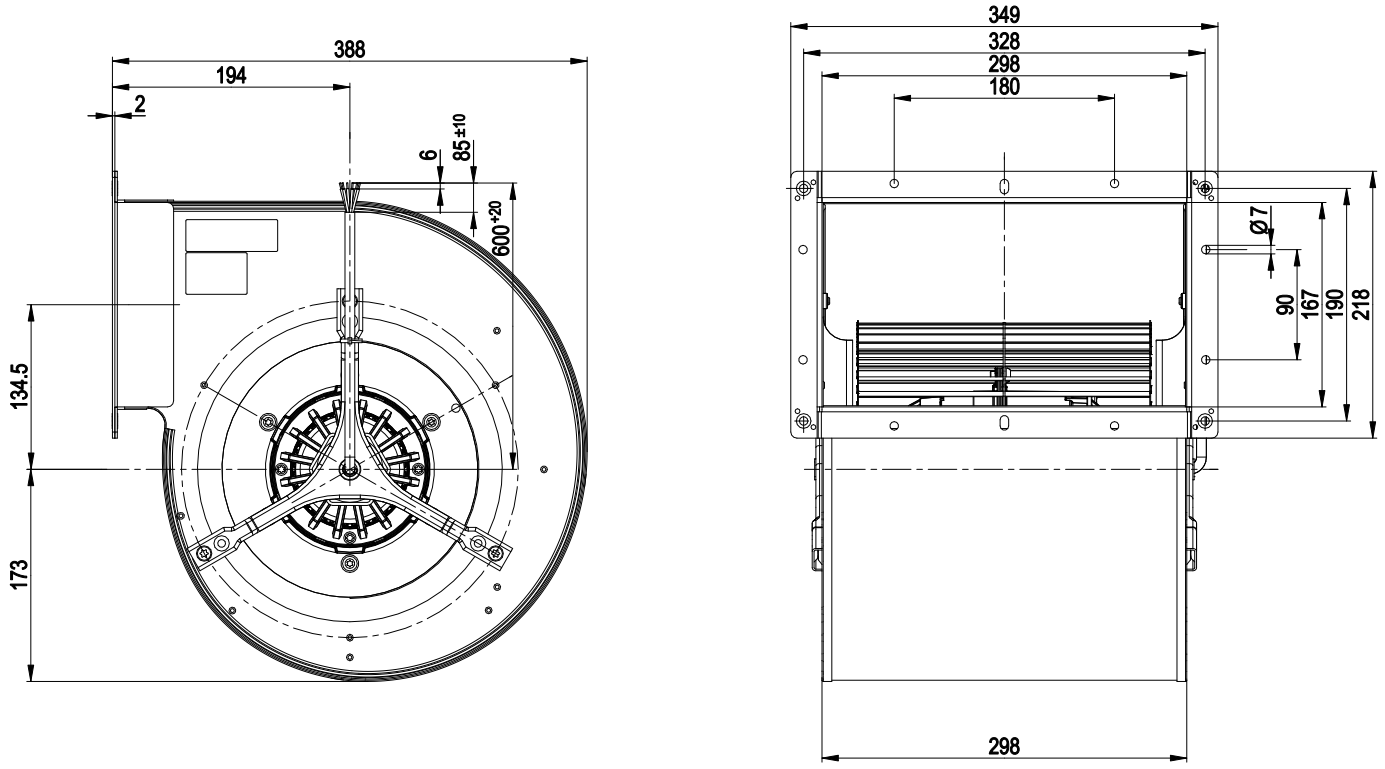
Product drawing



1	Connection line ETFE AWG18, 6 x brass lead tips crimped

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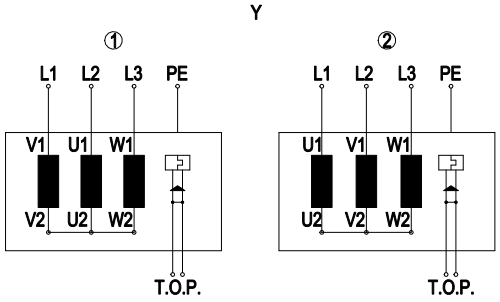
Connection screen



Y	Star connection, three-phase motor
1	Counter-clockwise operation
L1	blue
L2	black
L3	brown
PE	green/yellow
TOP	grey
2	Clockwise operation
L1	black
L2	blue
L3	brown
PE	green/yellow
TOP	grey

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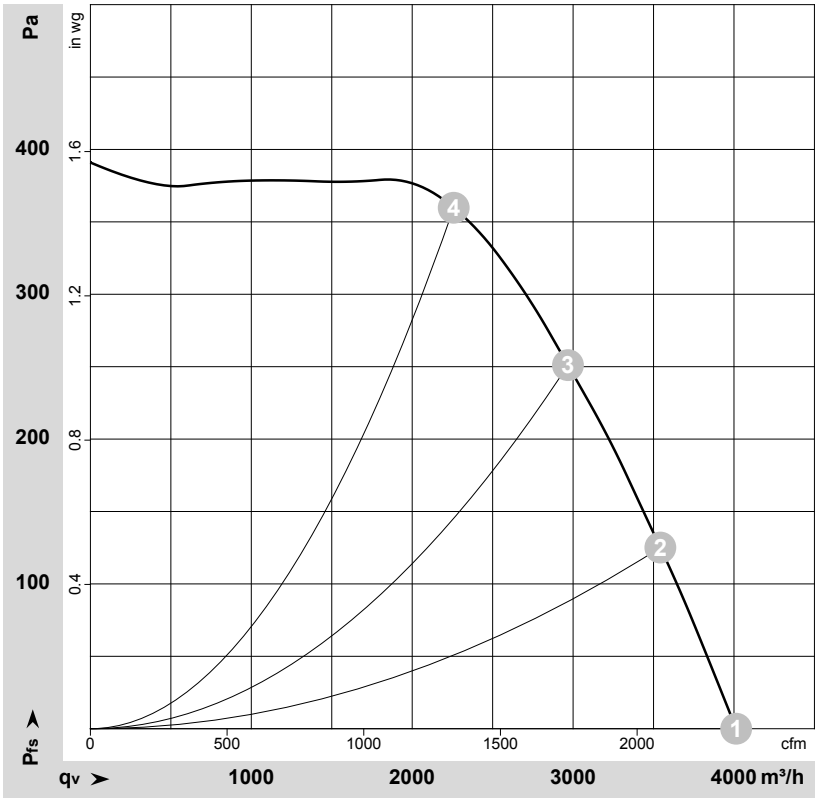
Charts: Air flow 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-73522-1

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	1240	1140	2.10	70	85	4015	0	2365	0.00
2	Y	400	50	1290	958	1.84	68	82	3540	125	2085	0.50
3	Y	400	50	1340	775	1.56	65	79	2970	250	1745	1.00
4	Y	400	50	1390	589	1.31	62	76	2260	360	1330	1.45

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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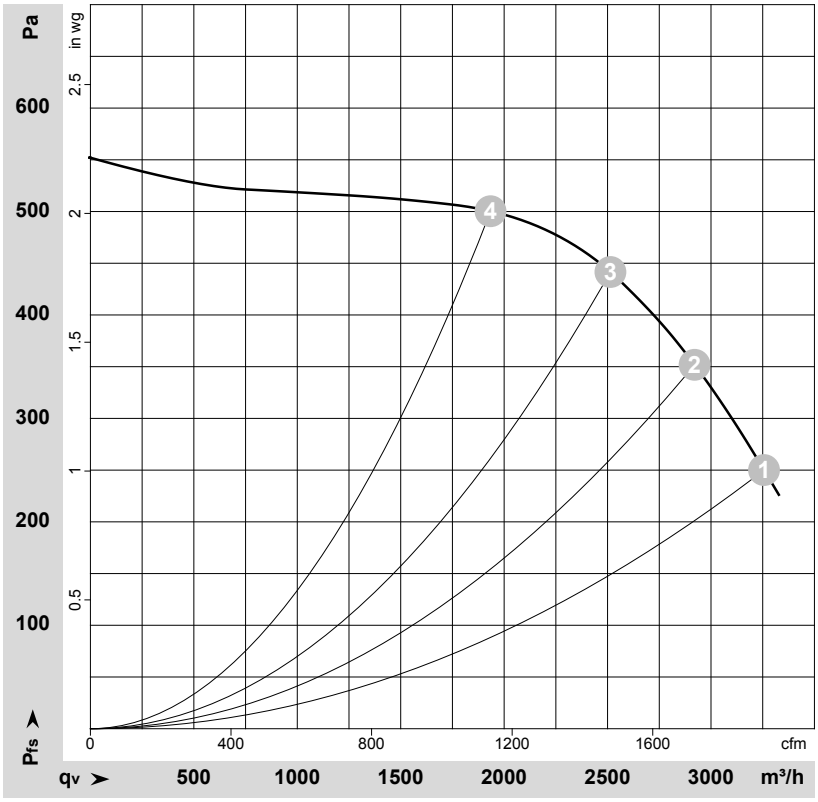
Charts: Air flow 60 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-133126-1

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	60	1410	1210	2.20	67	82	3255	250	1915	1.00
2	Y	400	60	1480	1029	1.82	66	80	2920	350	1720	1.41
3	Y	400	60	1545	875	1.57	65	79	2515	440	1480	1.77
4	Y	400	60	1620	676	1.28	64	78	1935	500	1140	2.01

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