D4D250-CA02-01

AC centrifugal fan

forward curved, dual inlet

with housing (large flange)

ebm-papst Mulfingen GmbH & Co. KG
Bachmühle 2 · D-74673 Mulfingen
Phone +49 7938 81-0
Fax +49 7938 81-110
info1@de.ebmpapst.com
www.ebmpapst.com

Limited partnership · Headquarters Mulfingen
County court Stuttgart · HRA 590344

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

ErP2015 EXCEEDS THE NORM

Nominal data

Type	**D4D250-CA02-01**
Motor	**M4D094-LA**

Phase		3~	3~
Nominal voltage	VAC	400	400
Connection		Y	Y
Frequency	Hz	50	60
Type of data definition		ml	ml
Valid for approval / standard		CE	CE
Speed	min^{-1}	1200	1410
Power input	W	1270	1270
Current draw	A	2.3	2.2
Min. back pressure	Pa	50	350
Min. ambient temperature	°C	-40	-40
Max. ambient temperature	°C	45	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 according to ErP directive

Installation category	B
Efficiency category	Total
Variable speed drive	No
Specific ratio*	1.00

* Specific ratio = 1 + p_f / 100 000 Pa

		Actual	Request 2013	Request 2015
Overall efficiency η_e		46.2	33.9	40.9
Efficiency grade N		54.3	42	49
Power input P_e	kW	0.53		
Air flow q_v	m^3/h	2190		
Pressure increase p_f	Pa	411		
Speed n	min^{-1}	1400		

Data established at point of optimum efficiency

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Technical features

Mass	16.7 kg
Size	250 mm
Surface of rotor	Cast in aluminium
Material of impeller	Sendzimir galvanized sheet steel
Housing material	Sendzimir galvanized sheet steel
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 20
Insulation class	"F"
Humidity class	F0
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible ambient motor temp. (transp./storage)	- 40 °C
Mounting position	Any
Condensate discharge holes	None
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
Cable exit	Axial
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60034-1 (2004); CE
Approval	CCC

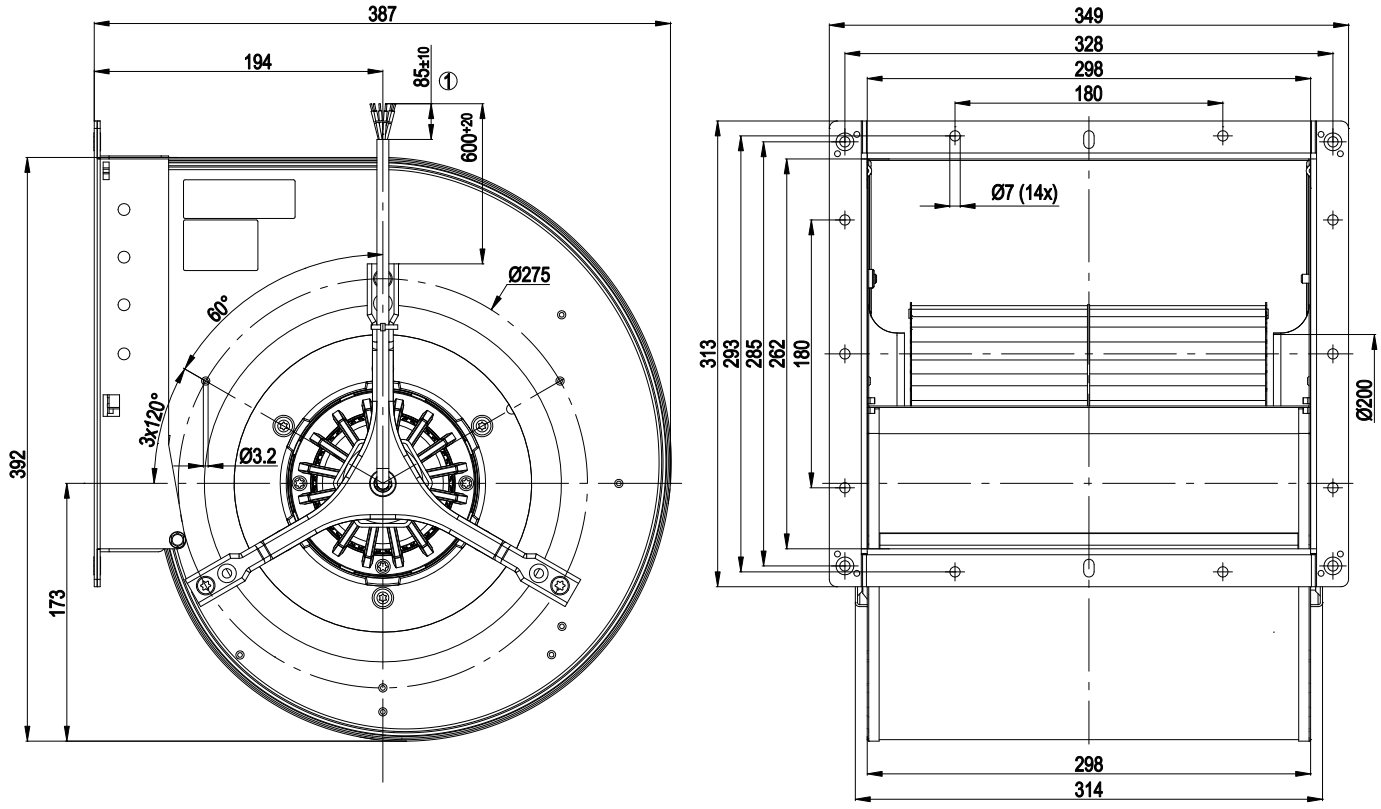
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Product drawing



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

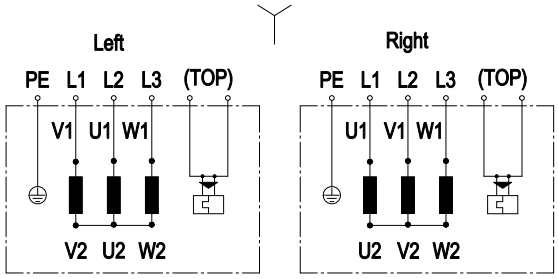
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Connection screen



Note: Direction of rotation changes when two phases are reversed

Y	Star connection	L1	= U1 = black	L2	= V1 = blue
L3	= W1 = brown	TOP	2 x grey	PE	green/yellow

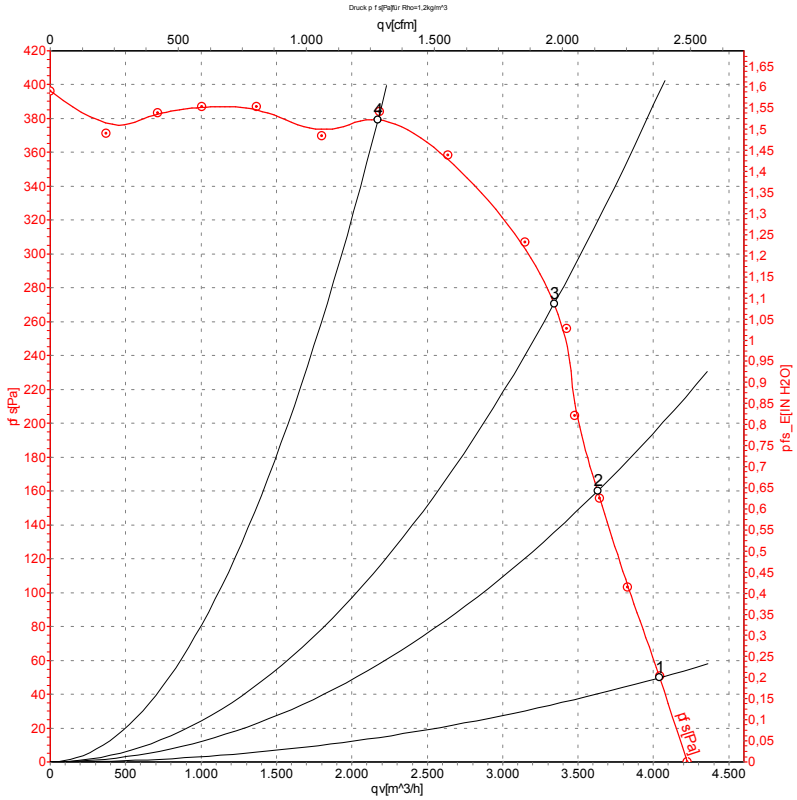
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Charts: Air flow 50 Hz



Measurement: LU-42113

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}	qv	p_{fs}
		V	Hz	min^{-1}	W	A	dB(A)	m^3/h	Pa
1	Y	400	50	1200	1270	2.30	76	4040	50
2	Y	400	50	1255	1075	1.97		3630	160
3	Y	400	50	1300	925	1.74		3340	270
4	Y	400	50	1400	536	1.22		2175	380

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

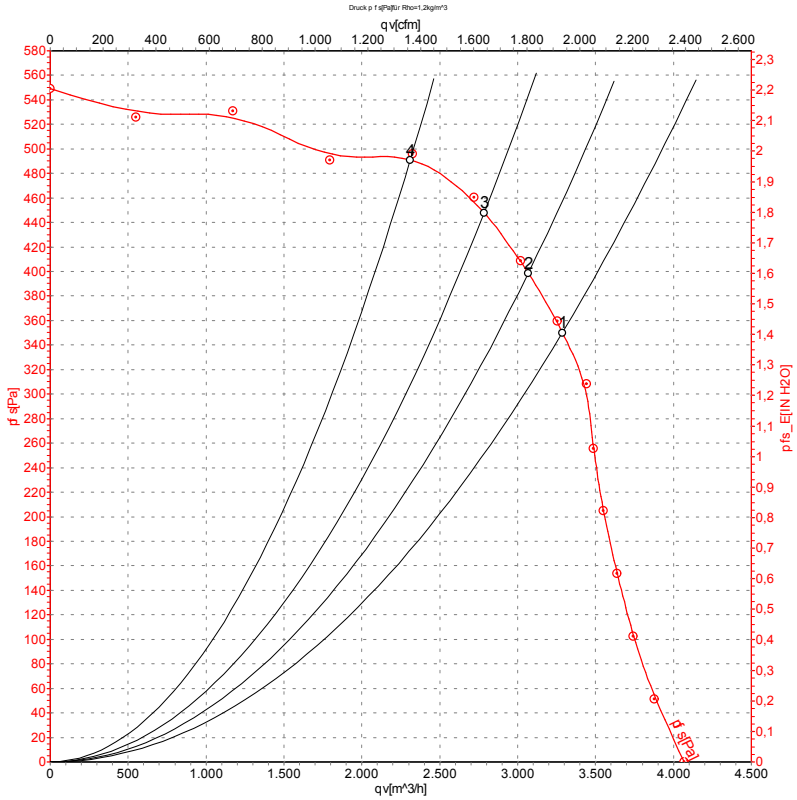
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Charts: Air flow 60 Hz



Measurement: LU-42114

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}	qv	p_{fs}
		V	Hz	min^{-1}	W	A	dB(A)	m^3/h	Pa
1	Y	400	60	1410	1270	2.20	72	3285	350
2	Y	400	60	1465	1072	1.94		3070	400
3	Y	400	60	1525	942	1.72		2785	450
4	Y	400	60	1590	764	1.44		2310	500

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

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