D4D250-CA02-01

AC centrifugal fan

forward curved, dual inlet

with housing (large flange)

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County court Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen
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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 (rpm)	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 in accordance with ecodesign regulation EU 327/2011 (EN 17166)

		Actual	Request 2015
01 Overall efficiency η_e	%	46.2	41
02 Measurement category		B	
03 Efficiency category		Total	
04 Efficiency grade N		54.2	49
05 Variable speed drive		No	

09 Power input P_e	kW	0.53
09 Air flow q_v	m^3/h	2190
09 Pressure increase p_f	Pa	411
10 Speed (rpm) n	min^{-1}	1400
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_f / 100 000 Pa

LU-42113

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Technical features

Mass	16.7 kg
Size	250 mm
Motor size	94
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	IP20
Insulation class	"F"
Humidity (F) / environmental protection class (H)	H0 - dry environment
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
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 (2004); CE
Approval	EAC; CCC

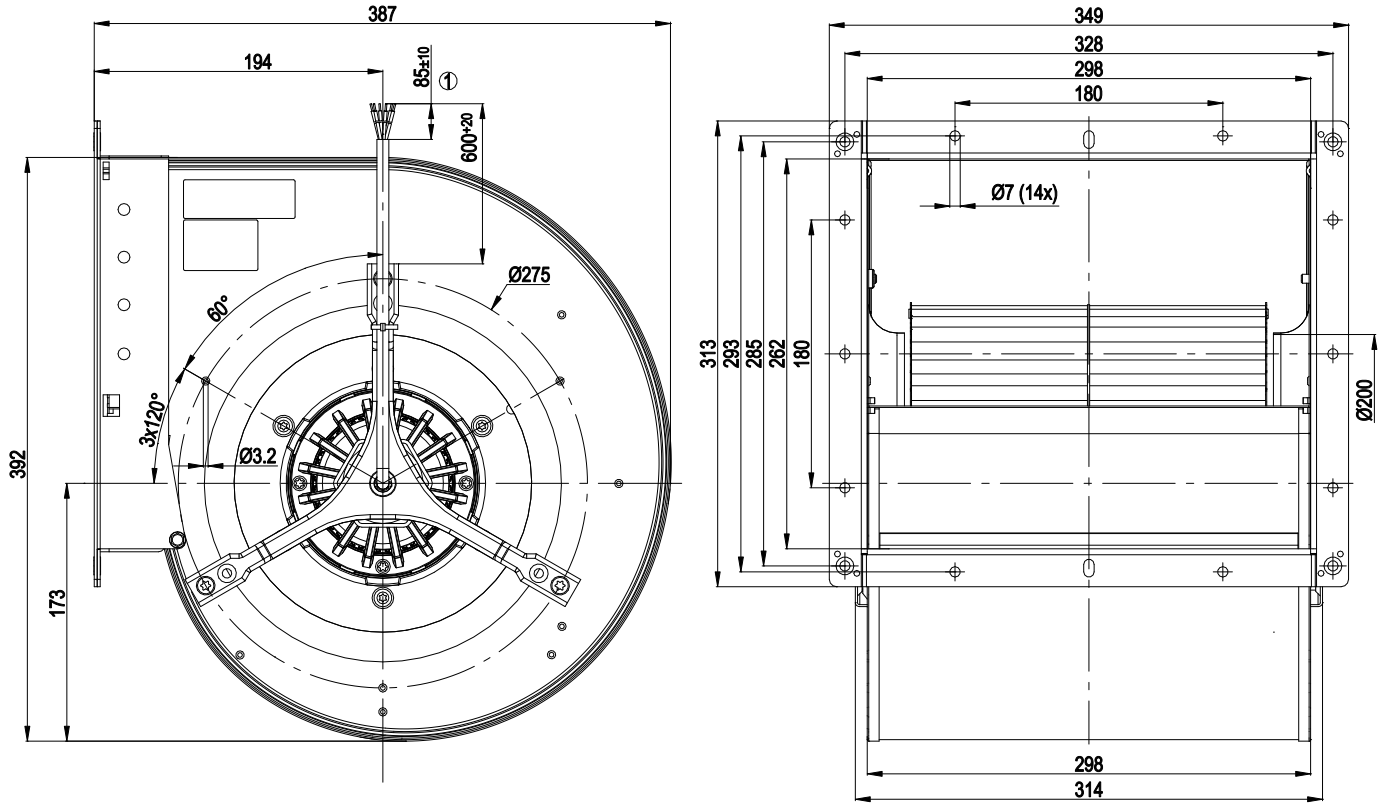
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Product drawing



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

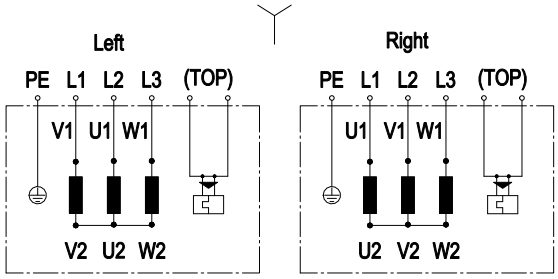
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Connection screen



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

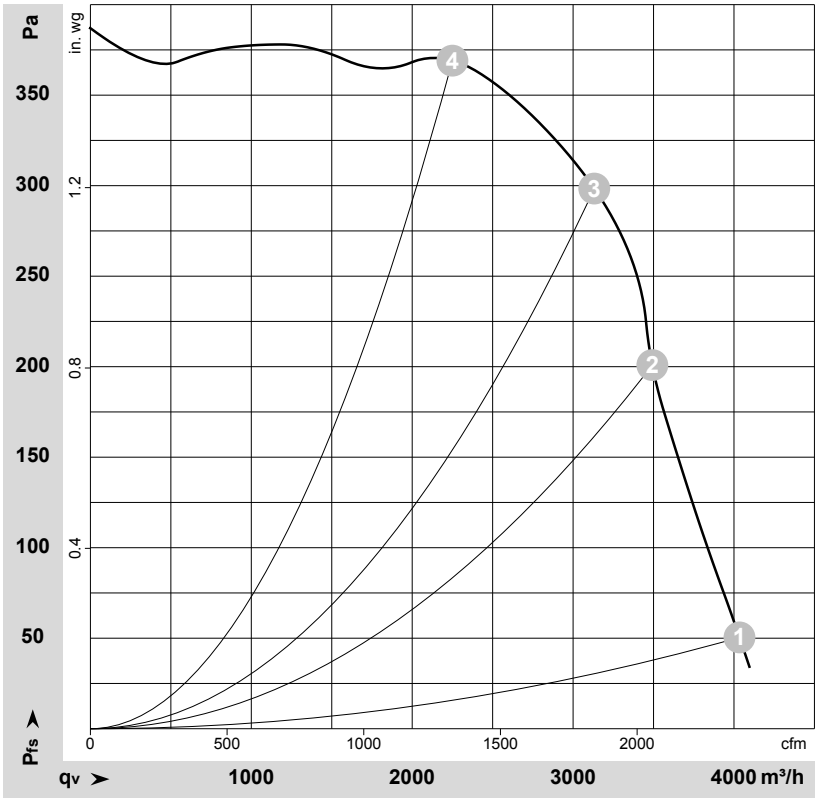
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Charts: Air flow 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-42113-1

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	50	1200	1270	2.30	4035	50	2375	0.20
2	Y	400	50	1280	1007	1.87	3495	200	2055	0.80
3	Y	400	50	1330	830	1.60	3130	300	1845	1.20
4	Y	400	50	1395	558	1.25	2250	370	1325	1.49

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

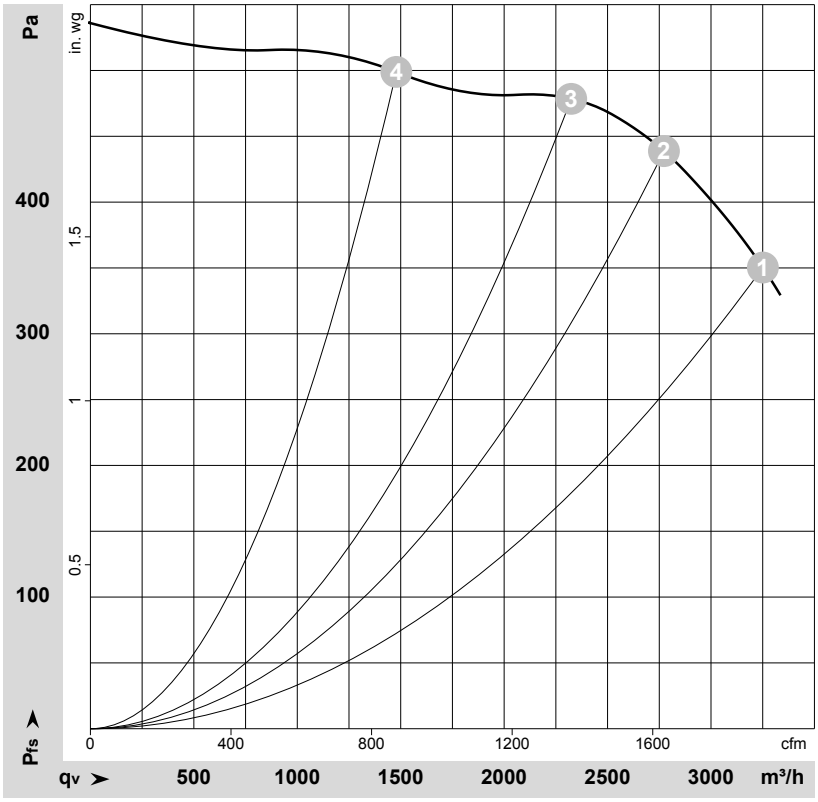
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Charts: Air flow 60 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-42114-1

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

	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	400	60	1410	1270	2.20	3250	350	1915	1.41
2	400	60	1530	936	1.71	2775	440	1630	1.77
3	400	60	1590	769	1.44	2325	480	1370	1.93
4	400	60	1675	509	1.07	1480	500	870	2.01

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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