D4D250-CA02-10

AC centrifugal fan

forward-curved, dual-intake

with housing (large flange)

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Amtsgericht (court of registration) Stuttgart · HRA 590344

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Nominal data

Type	**D4D250-CA02-10**
Motor	**M4D094-LA**

Phase		3~	3~
Nominal voltage	VAC	230	230
Wiring		Δ	Δ
Frequency	Hz	50	60
Method of obtaining data		ml	ml
Valid for approval/standard		CE	CE
Speed (rpm)	min^{-1}	1200	1410
Power consumption	W	1270	1270
Current draw	A	3.98	3.8
Min. back pressure	Pa	50	350
Min. back pressure	in. wg	0.2	1.41
Min. ambient temperature	°C	-40	-40
Max. ambient temperature	°C	45	45
Starting current	A	8.0	6.95

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

Data according to Commission Regulation (EU) 327/2011 (EN 17166)

		Actual	Req. 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 consumption 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 obtained at optimum efficiency level.
The ErP data is determined using a motor-impeller combination in a standardized measurement setup.

* Specific ratio = 1 + p_f / 100 000 Pa

LU-42113

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Technical description

Weight	17.2 kg
Size	250 mm
Motor size	94
Rotor surface	Cast in aluminum
Impeller material	Sheet steel, hot-dip galvanized
Housing material	Sheet steel, hot-dip galvanized
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP20
Insulation class	"F"
Moisture (F) / Environmental (H) protection class	H0 - dry environment
Ambient temperature note	Occasional start-up at temperatures between -40°C and -25°C is permitted. For continuous operation at ambient temperatures below -25°C (such as refrigeration applications), use must be made of a fan design with special low-temperature bearings.
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
Mode	S1
Motor bearing	Ball bearing; (sealed)
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	< 0.75 mA
Motor protection	Thermal overload protector (TOP) with basic insulation
With cable	Axial
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60034-1 (2004); CE
Approval	EAC

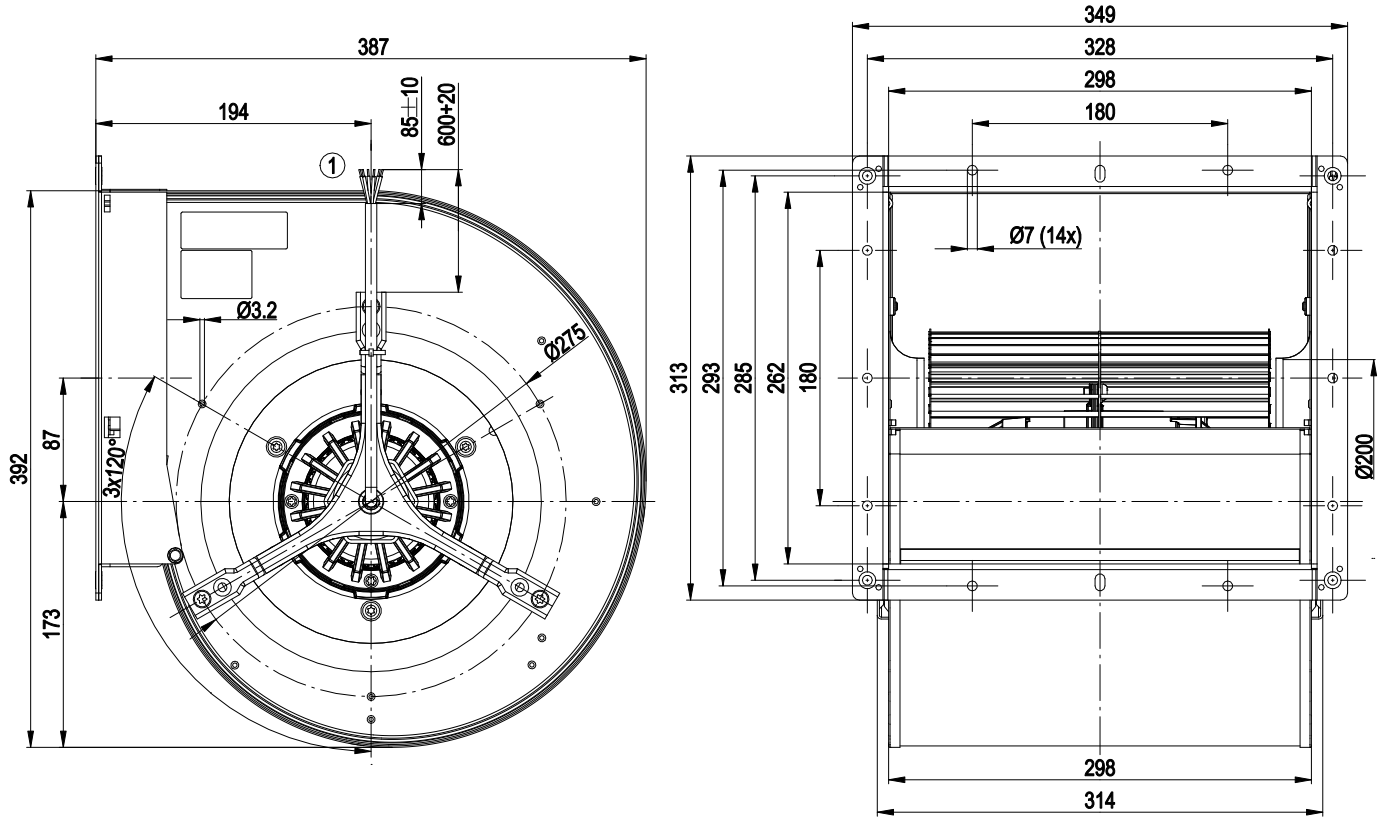
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Product drawing



1	Cable ETFE AWG18, 6x crimped splices

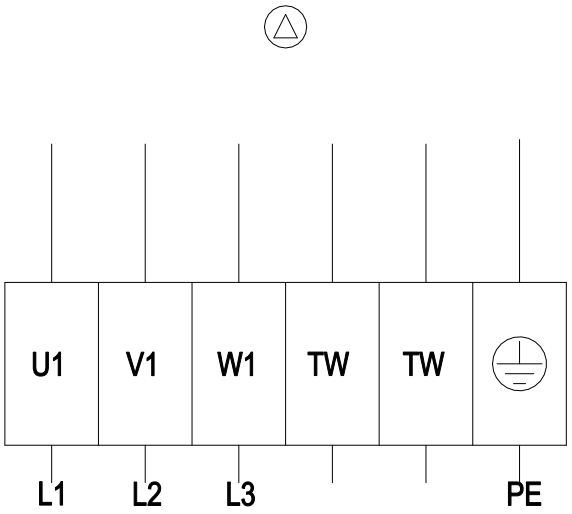
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Connection diagram



Δ	Delta connection	L1	= U1 = black	L2	= V1 = blue
L3	= W1 = brown	TOP	2x gray	PE	green/yellow

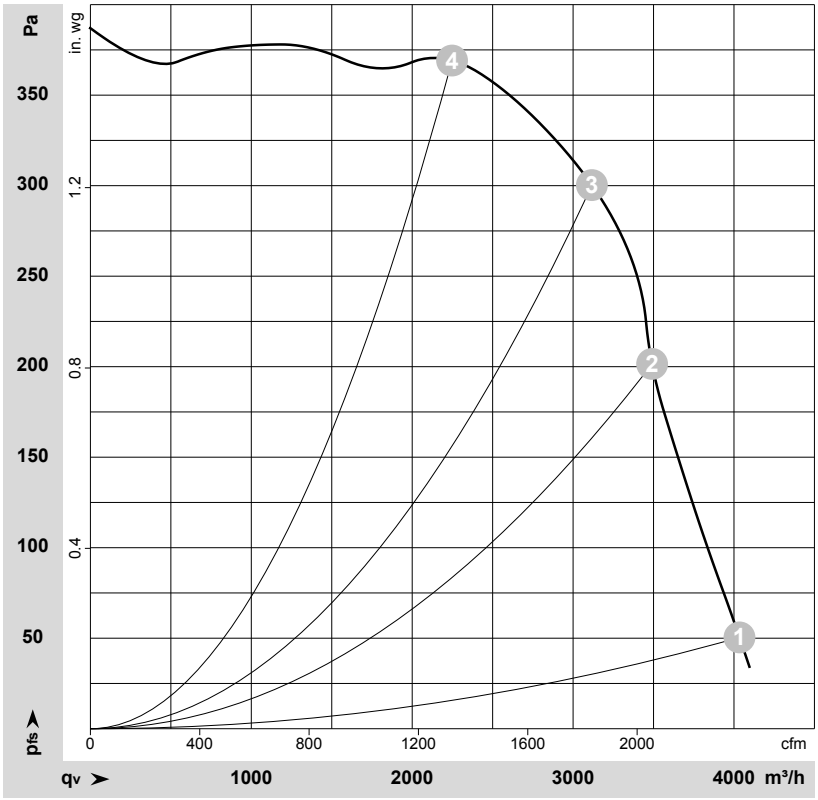
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Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-42113-1

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebm-papst. 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

	Wired	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	Δ	230	50	1200	1270	3.98	4035	50	2375	0.20
2	Δ	230	50	1280	1006	3.24	3490	200	2055	0.80
3	Δ	230	50	1330	825	2.75	3115	300	1835	1.20
4	Δ	230	50	1395	558	2.17	2250	370	1325	1.49

Wired = Wiring · U = Voltage · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · q_V = Air flow · p_{fs} = Pressure increase

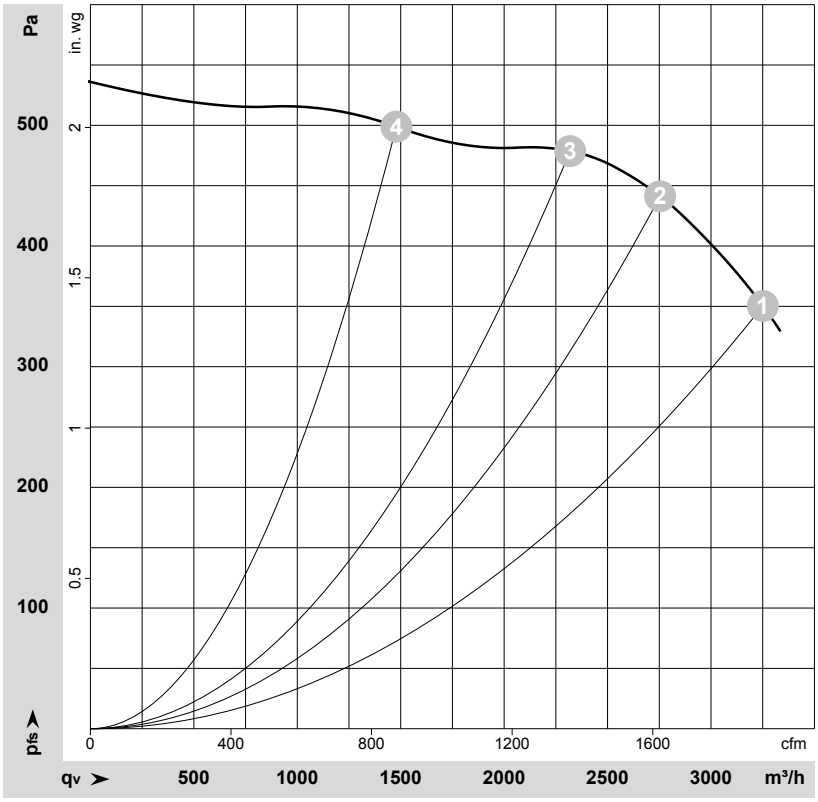
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Curves: Air performance 60 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-42114-1

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebm-papst. 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

	Wired	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	Δ	230	60	1410	1270	3.80	3250	350	1915	1.41
2	Δ	230	60	1530	928	2.93	2755	440	1620	1.77
3	Δ	230	60	1590	767	2.49	2320	480	1365	1.93
4	Δ	230	60	1675	509	1.85	1480	500	870	2.01

Wired = Wiring · U = Voltage · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · q_V = Air flow · p_{fs} = Pressure increase

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