

D4D250-CA02-10

AC centrifugal fan

forward-curved, dual-intake
with housing (large flange)

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General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen

Amtsgericht (court of registration) Stuttgart · HRB 590142

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

		Actual	Req. 2015			
01 Overall efficiency η_e	%	46.2	40.9	09 Power consumption P_e	kW	0.53
02 Measurement category		B		09 Air flow q_v	m ³ /h	2190
03 Efficiency category		Total		09 Pressure increase p_f	Pa	411
04 Efficiency grade N		54.3	49	10 Speed (rpm) n	min ⁻¹	1400
05 Variable speed drive		No		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 = $1 + p_f / 100\,000\text{ Pa}$

LU-42113



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Technical description

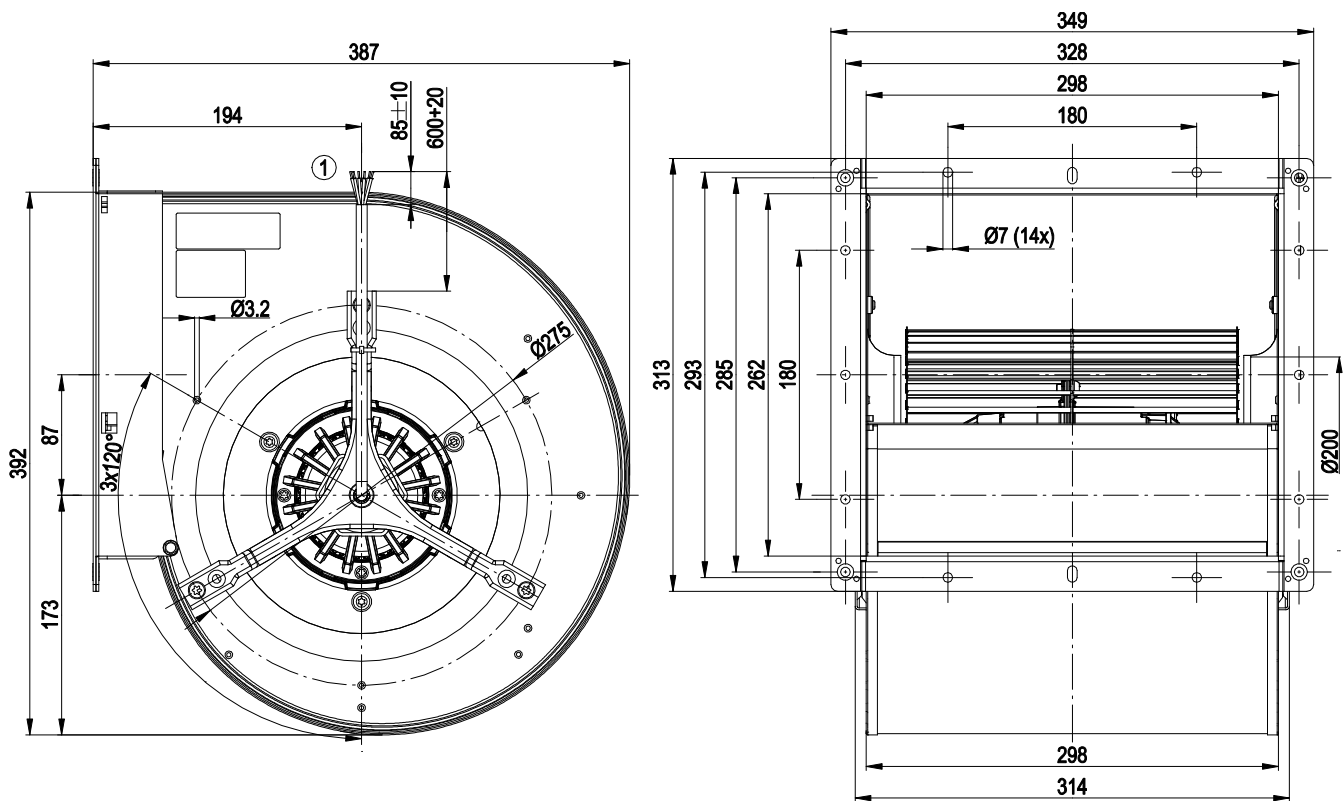
Weight	17 kg
Size	250 mm
Motor size	94
Rotor surface	Cast in aluminum
Impeller material	Sheet steel, hot-dip galvanized
Housing material	Sheet steel, hot-dip galvanized
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP20
Insulation class	"F"
Moisture (F) / Environmental (H) protection class	H0 - dry environment
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



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Product drawing



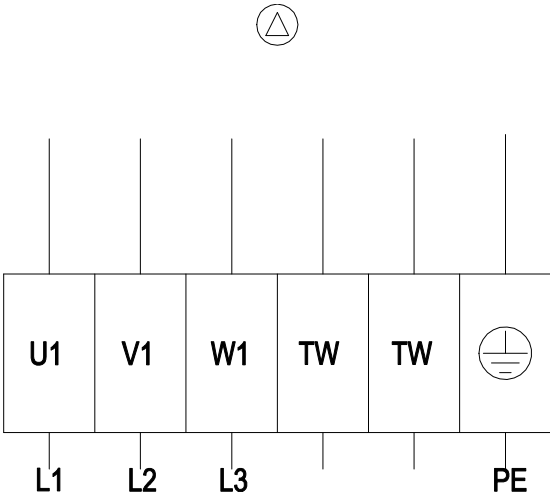
1	Cable ETFE AWG18, 6x crimped splices
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Connection diagram



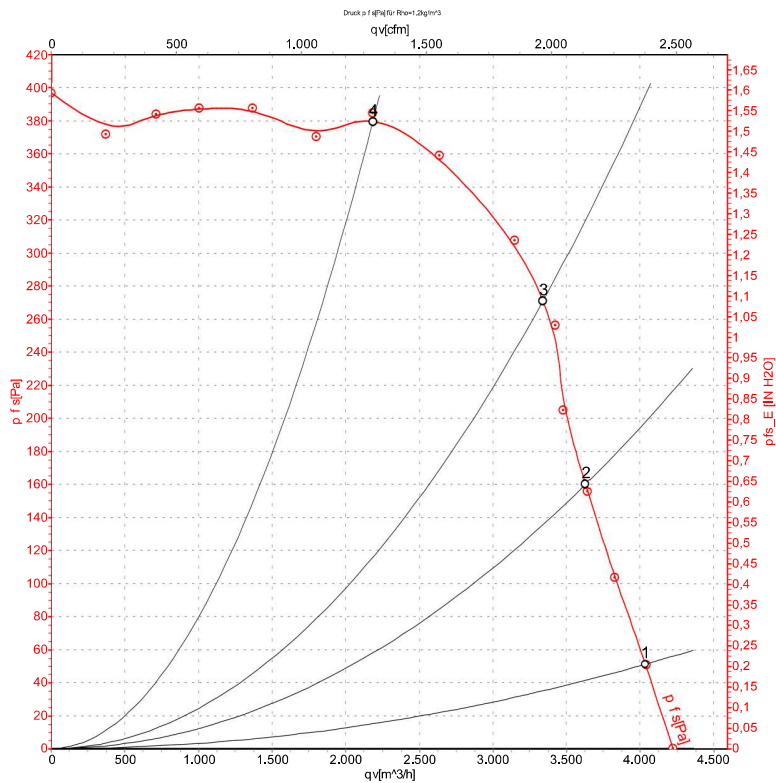
Δ	Delta connection	L1	= U1 = black	L2	= V1 = blue
L3	= W1 = brown	TOP	2x gray	PE	green/yellow



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Curves: Air performance 50 Hz



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	1255	1076	3.40	3630	160	2135	0.64
3	Δ	230	50	1300	925	3.00	3340	270	1965	1.08
4	Δ	230	50	1400	539	2.11	2185	380	1285	1.53

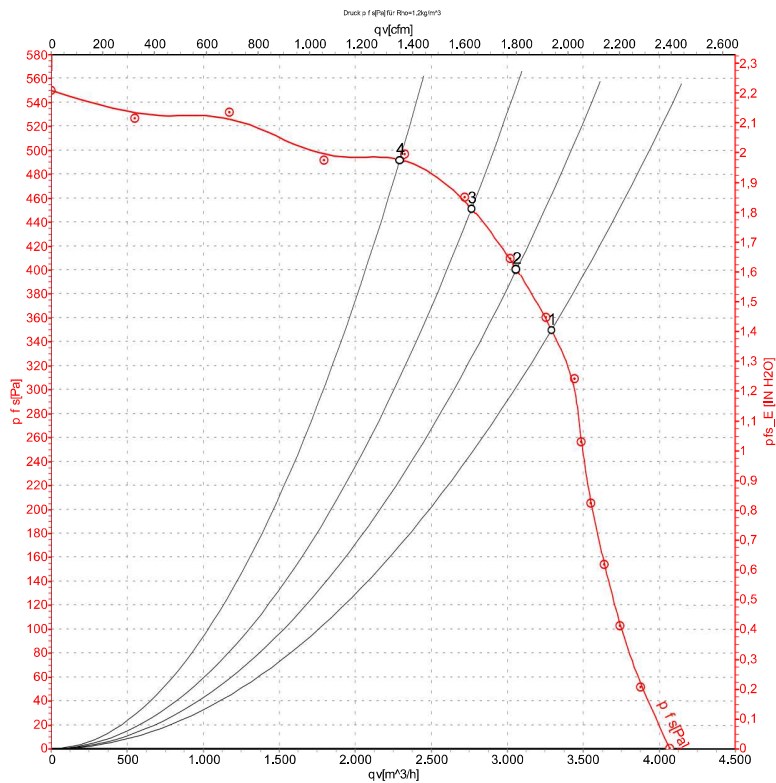
Wired = Wiring · U = Voltage · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · q_v = Air flow · p_{fs} = Pressure increase



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Curves: Air performance 60 Hz



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	m³/h	Pa	cfm	in. wg
1	Δ	230	60	1410	1270	3.80	3290	350	1935	1.41
2	Δ	230	60	1470	1068	3.36	3060	400	1800	1.61
3	Δ	230	60	1530	933	2.98	2765	450	1625	1.81
4	Δ	230	60	1595	758	2.50	2290	500	1350	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

