D4E250-CA02-08

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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Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	**D4E250-CA02-08**
Motor	**M4E094-LA**

Phase		1~	1~
Nominal voltage	VAC	230	230
Frequency	Hz	50	60
Method of obtaining data		ml	ml
Valid for approval/standard		CE	CE
Speed (rpm)	min^{-1}	1370	1440
Power consumption	W	840	1220
Current draw	A	4.1	5.7
Capacitor	µF	14	14
Capacitor voltage	VDB	450	450
Capacitor standard		S0 (CE)	S0 (CE)
Min. back pressure	Pa	350	385
Min. back pressure	inH2O	1.41	1.55
Min. ambient temperature	°C	-40	-40
Max. ambient temperature	°C	65	35
Starting current	A	10.6	9.4

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

Data according to ErP Directive

		Actual	Req. 2015
01 Overall efficiency η_e	%	43.2	41.7
02 Measurement category		B	
03 Efficiency category		Total	
04 Efficiency grade N		50.5	49
05 Variable speed drive		No	

09 Power consumption P_e	kW	0.7
09 Air flow q_v	m^3/h	2410
09 Pressure increase p_f	Pa	456
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-153405

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Technical description

Weight	17.1 kg
Fan size	250 mm
Rotor surface	Cast in aluminum
Impeller material	Sheet steel, galvanized
Housing material	Sheet steel, galvanized
Motor suspension	Motor vibration-damped on both sides
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP20
Insulation class	"F"
Moisture (F) / Environmental (H) protection class	F0
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
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Motor protection	Thermal overload protector (TOP) internally connected
With cable	Axial
Protection class	I (with customer connection of protective earth)
Motor capacitor according to EN 60252-1 in safety protection class	S2
Conformity with standards	EN 60034-1 (2004); CE

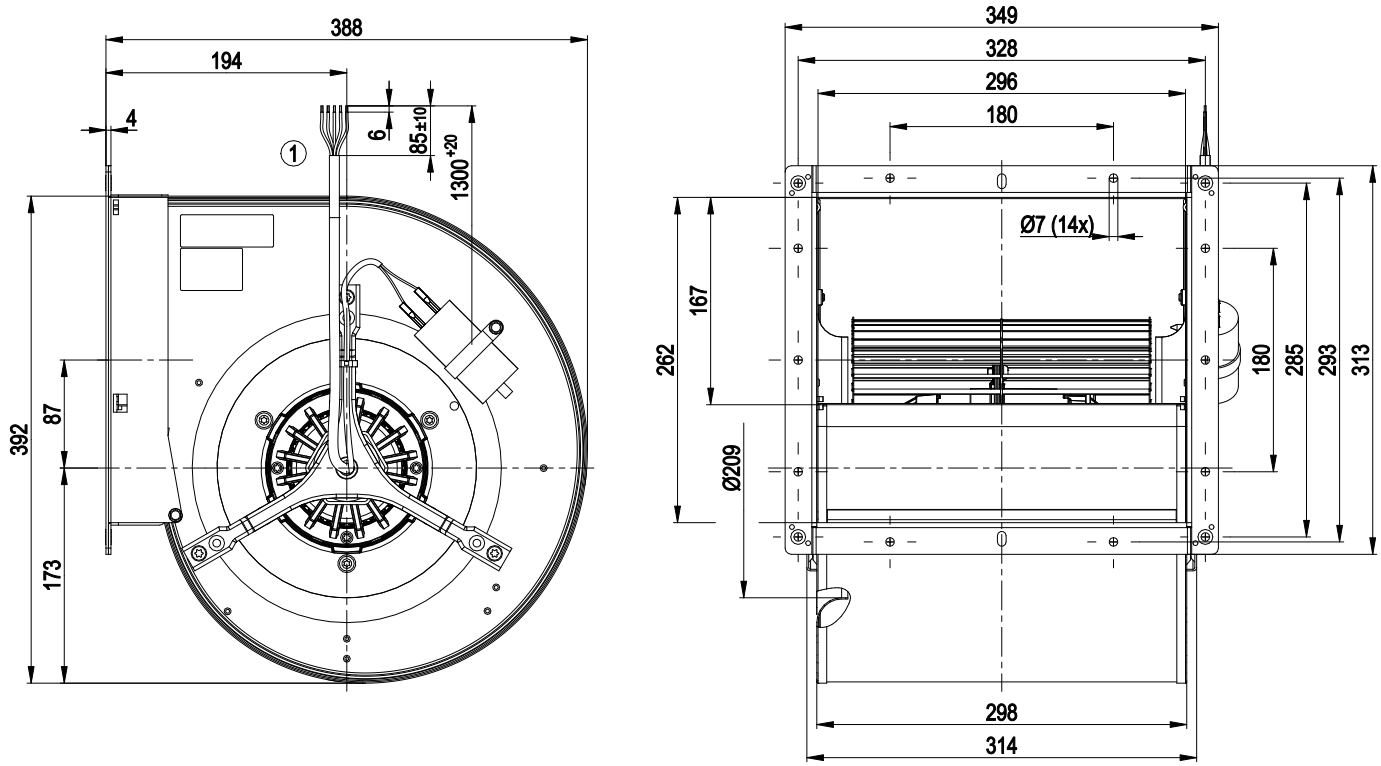
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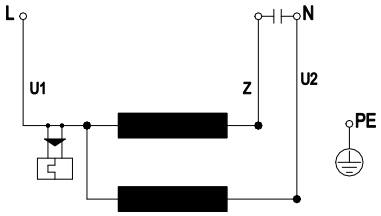
with housing (large flange)

Product drawing



1	Cable PFA AWG18, 3x crimped splices

Connection diagram



U1	blue	Z	brown	U2	black
PE	green/yellow				

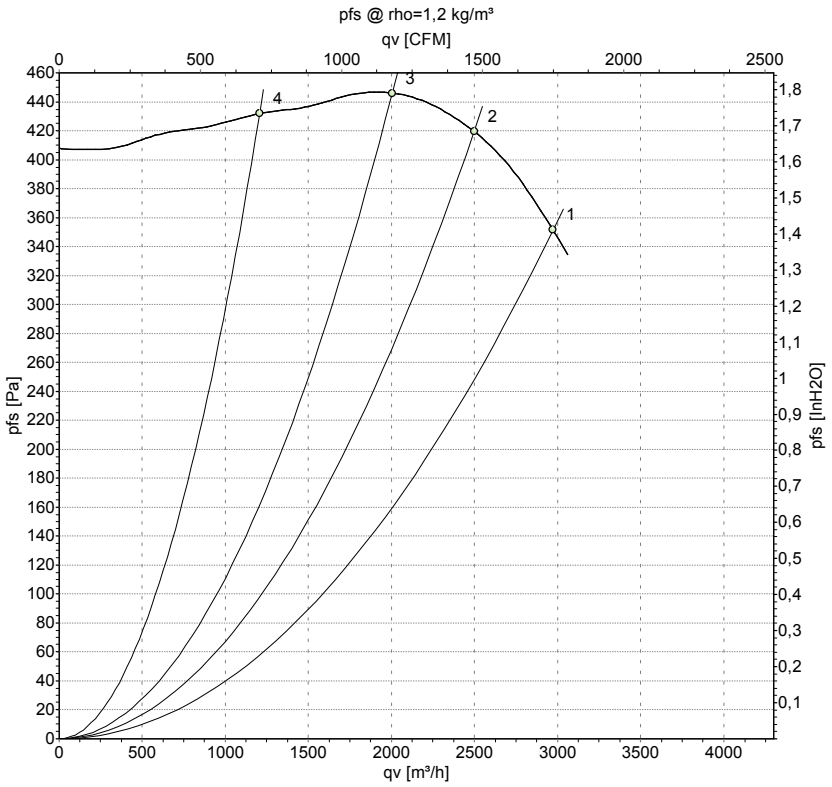
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AC centrifugal fan

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Curves: Air performance 50 Hz



Measurement: LU-153405-1

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

	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	inH2O
1	230	50	1370	840	4.10	2970	350	1750	1.41
2	230	50	1400	729	3.60	2495	420	1470	1.69
3	230	50	1425	616	3.16	2005	445	1180	1.79
4	230	50	1450	479	2.70	1205	430	710	1.73

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

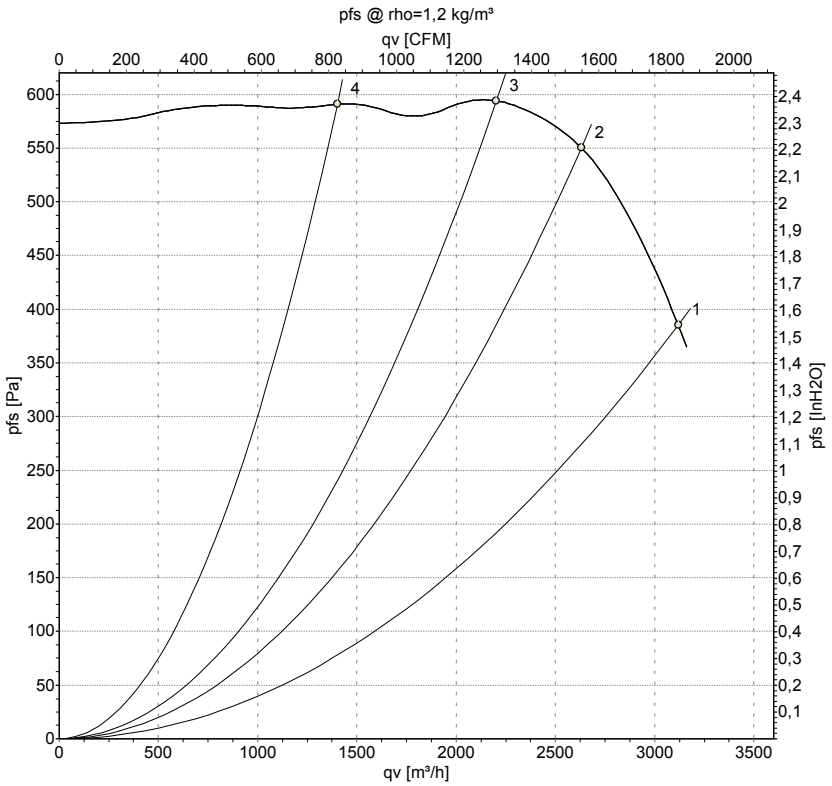
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Curves: Air performance 60 Hz



Measurement: LU-153406-1

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

	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	inH2O
1	230	60	1440	1220	5.70	3120	385	1835	1.55
2	230	60	1575	1049	4.68	2630	550	1550	2.21
3	230	60	1645	913	3.99	2200	595	1295	2.39
4	230	60	1690	767	3.35	1400	590	825	2.37

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

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