

AC centrifugal fan

forward-curved, dual-intake

with housing (large flange)

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Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	D4E250-CA03-05			
Motor	M4E094-LA			
Phase		1~	1~	1~
Nominal voltage	VAC	115	115	115
Frequency	Hz	50	60	60
Method of obtaining data		ml	ml	ml
Valid for approval/standard		CE	CE	UL
Speed (rpm)	min ⁻¹	1200	1400	1400
Power consumption	W	1130	1110	1130
Current draw	A	11.5	10.6	10.4
Capacitor	µF	40	40	40
Capacitor voltage	VDB	250	250	250
Capacitor standard				UL
Min. back pressure	Pa	200	350	350
Min. back pressure	in. wg	0.8	1.41	1.41
Min. ambient temperature	°C	-40	-40	-40
Max. ambient temperature	°C	55	50	50

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	%	44.4	41.9
02 Measurement category		B	
03 Efficiency category		Total	
04 Efficiency grade N		51.5	49
05 Variable speed drive		No	

Data obtained at optimum efficiency level.

The ErP data is determined using a motor-impeller combination in a standardized measurement setup.

09 Power consumption P_e	kW	0.76
09 Air flow q_v	m³/h	2280
09 Pressure increase p_f	Pa	538
10 Speed (rpm) n	min ⁻¹	1630
11 Specific ratio*		1.01

* Specific ratio = $1 + p_f / 100\,000\text{ Pa}$

LU-56656



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Technical description

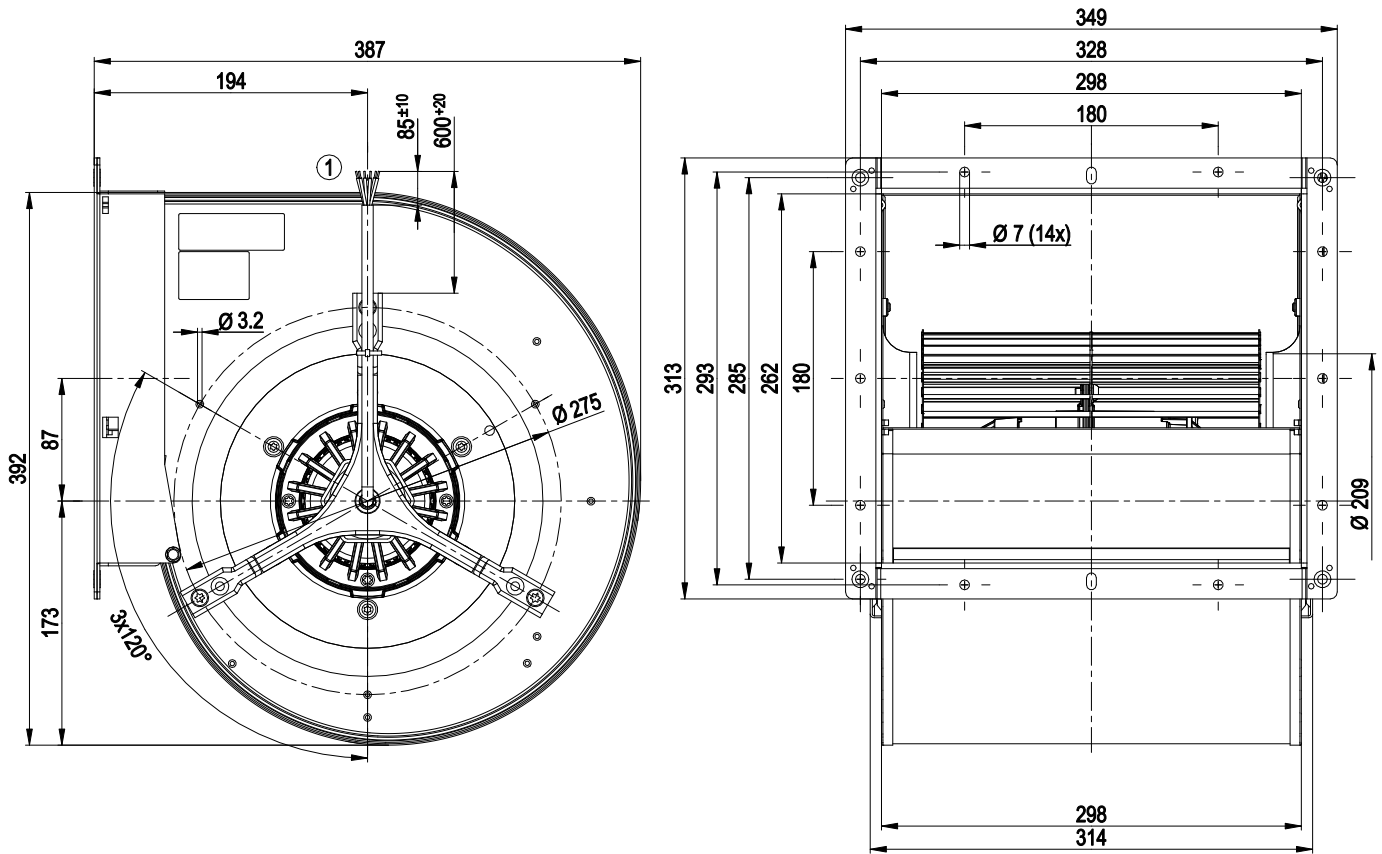
Weight	17.3 kg
Size	250 mm
Motor size	94
Rotor surface	Cast in aluminum
Impeller material	Sheet steel, galvanized
Housing material	Sheet steel, galvanized
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP20
Insulation class	"F"
Moisture (F) / Environmental (H) protection class	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
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Motor protection	Thermal overload protector (TOP) with basic insulation
With cable	Axial
Protection class	I (with customer connection of protective earth)
Motor capacitor according to EN 60252-1 in safety protection class	S0
Conformity with standards	EN 60034-1; CE
Approval	CSA C22.2 No. 100; UL 1004-1; EAC



AC centrifugal fan

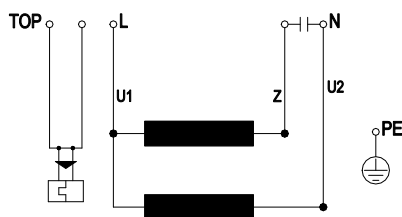
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Product drawing



1 Cable PFA AWG18, 6x crimped splices

Connection diagram

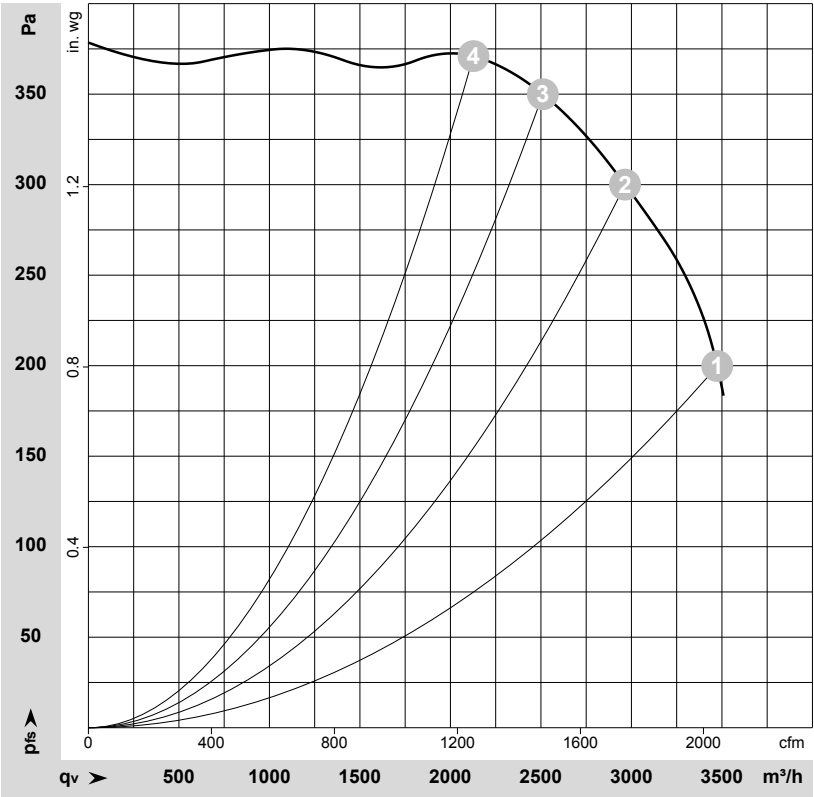


TOP	2x gray	U1	blue	Z	brown
U2	black	PE	green/yellow		

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Curves: Air performance 50 Hz



$\rho = 1.15 \text{ kg/m}^3 \pm 2 \%$

Measurement: LU-56657-1

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	1~	115	50	1200	1130	11.50	3475	200	2045	0.80
2	1~	115	50	1320	845	8.68	2965	300	1745	1.20
3	1~	115	50	1380	681	7.28	2510	350	1480	1.41
4	1~	115	50	1405	579	6.51	2125	370	1250	1.49

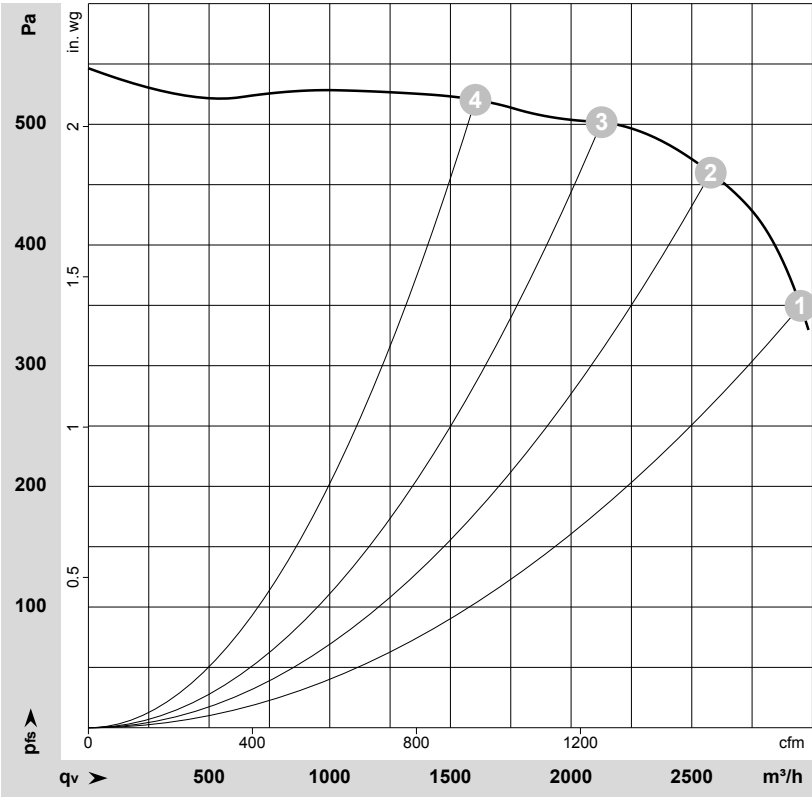
Wired = Wiring · U = Voltage · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · q_v = Air flow · p_{fs} = Pressure increase



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Curves: Air performance 60 Hz



$\rho = 1.15 \text{ kg/m}^3 \pm 2 \%$

Measurement: LU-56656-1

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	1~	115	60	1400	1110	10.60	2950	350	1735	1.41
2	1~	115	60	1565	892	8.27	2580	460	1520	1.85
3	1~	115	60	1645	722	6.59	2125	500	1250	2.01
4	1~	115	60	1695	587	5.35	1605	520	945	2.09

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

