D2E146-AZ03-F9

AC centrifugal fan

forward-curved, dual-intake

with housing (flange)

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Nominal data

Type	**D2E146-AZ03-F9**
Motor	**M2E074-EI**

Phase		1~	1~	1~
Nominal voltage	VAC	230	230	230
Frequency	Hz	50	60	60
Method of obtaining data		ml	ml	ml
Valid for approval/standard		CE	CE	UL 2111
Speed (rpm)	min^{-1}	2300	2500	2500
Power consumption	W	330	365	380
Current draw	A	1.44	1.59	1.65
Capacitor	µF	7	7	7
Capacitor voltage	VDB	400	400	400
Capacitor standard		S2 (CE)	S2 (CE)	UL
Min. back pressure	Pa	235	350	350
Min. back pressure	inH2O	0.94	1.41	1.41
Min. ambient temperature	°C	-25	-25	-25
Max. ambient temperature	°C	65	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

		Actual	Req. 2015
01 Overall efficiency η_{es}	%	33.5	33.5
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		44	44
05 Variable speed drive		No	

09 Power consumption P_e	kW	0.22
09 Air flow q_v	m^3/h	640
09 Pressure increase p_{fs}	Pa	411
10 Speed (rpm) n	min^{-1}	2645
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_{fs} / 100 000 Pa

LU-166694

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Technical description

Weight	5.4 kg
Fan size	146 mm
Rotor surface	Unpainted
Impeller material	Sheet steel, galvanized
Housing material	Sheet steel, galvanized
Motor suspension	Motor vibration-damped on one side
Direction of rotation	Counterclockwise, viewed toward rotor
Degree of protection	IP44
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
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	< 0.75 mA
Motor protection	Thermal overload protector (TOP) with basic insulation
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 60335-1; CE
Approval	UL 1004-3; CCC; CSA C22.2 No. 77; EAC

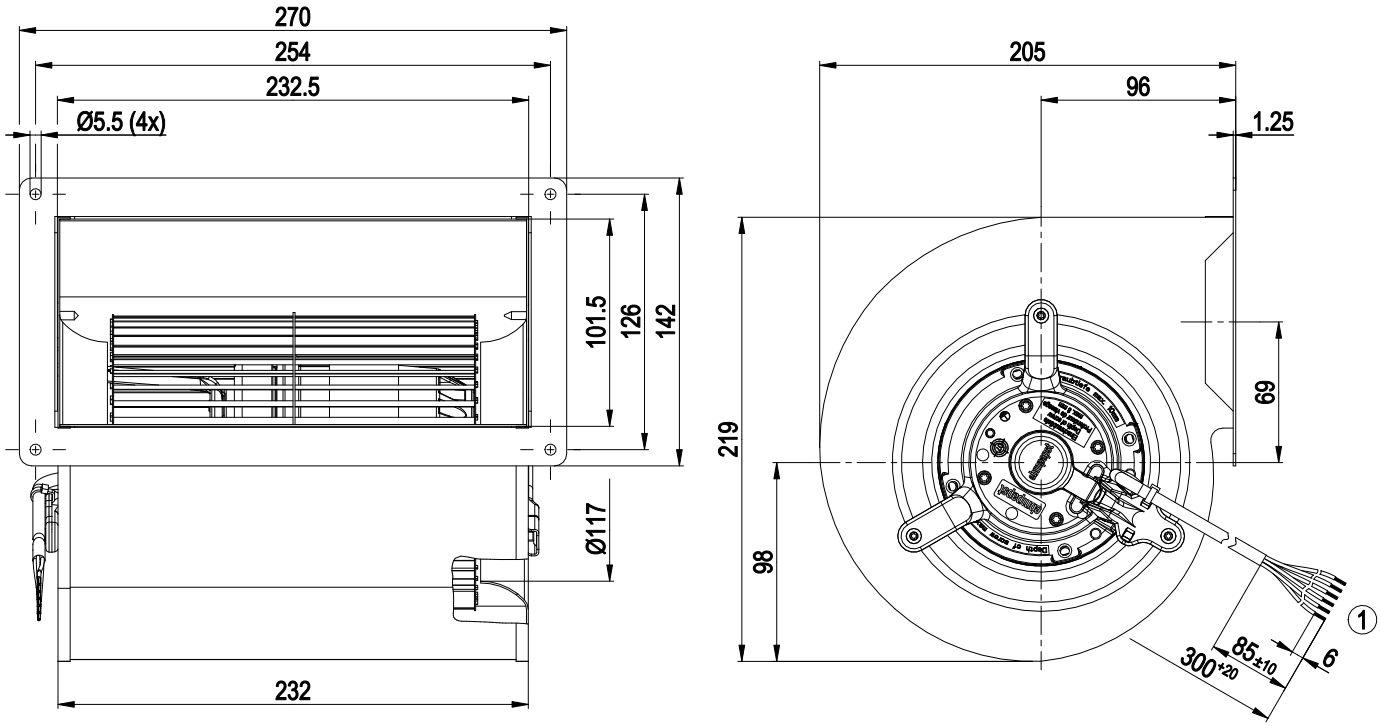
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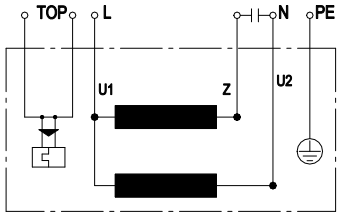
with housing (flange)

Product drawing



1	Cable silicone 6x 0.5 mm², 6x crimped splices

Connection diagram



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

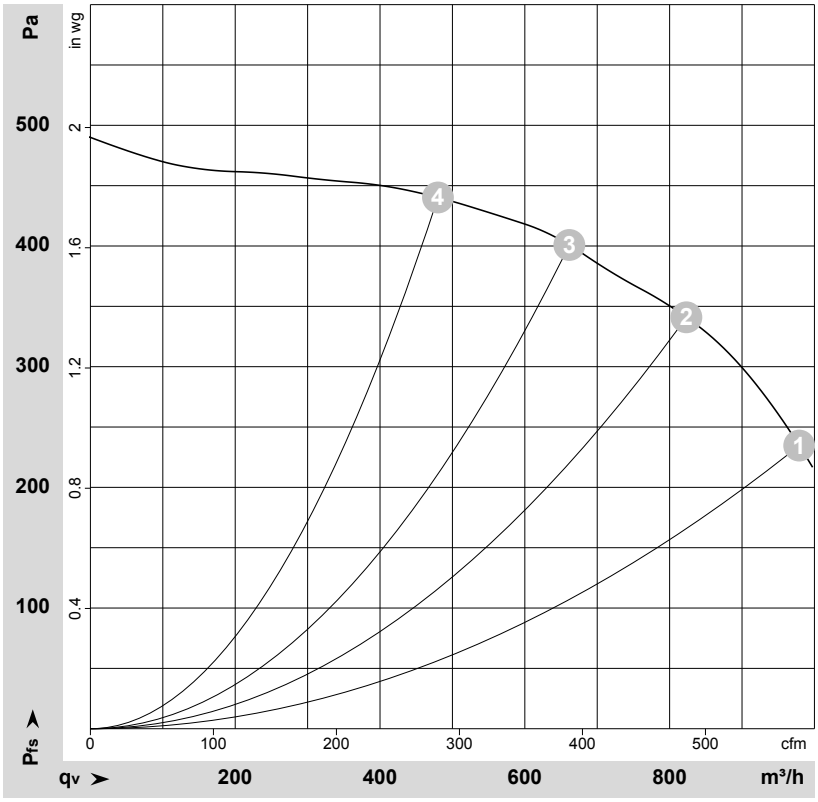
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Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-166694-1

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	LpA_{in}	LwA_{in}	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa	cfm	inH2O
1	230	50	2300	330	1.44	64	75	980	235	575	0.94
2	230	50	2500	272	1.19	64	75	825	340	485	1.36
3	230	50	2625	234	1.03	64	75	660	400	390	1.61
4	230	50	2720	198	0.88	65	75	480	440	285	1.77

U = Power supply · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · LpA_{in} = Sound pressure level intake side · LwA_{in} = Sound power level intake side
q_V = Air flow · p_{fs} = Pressure increase

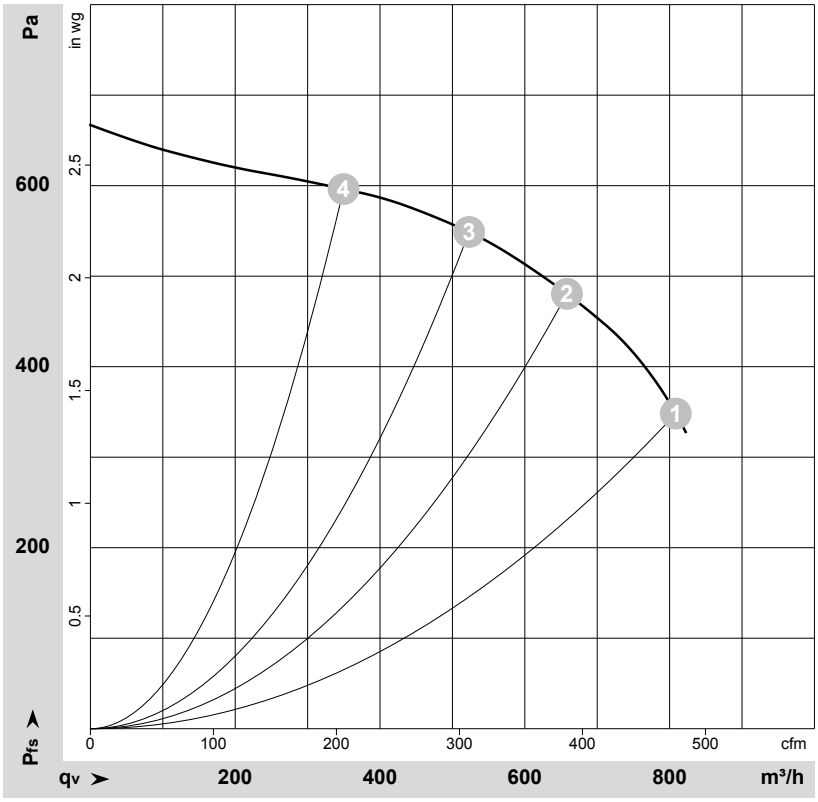
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Curves: Air performance 60 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-166734-1

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	LpA_{in}	LwA_{in}	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa	cfm	inH2O
1	230	60	2500	365	1.59	64	74	810	350	475	1.41
2	230	60	2850	328	1.44	66	77	660	480	385	1.93
3	230	60	3035	295	1.32	68	78	525	550	310	2.21
4	230	60	3185	259	1.21	69	80	350	600	205	2.41

U = Power supply · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · LpA_{in} = Sound pressure level intake side · LwA_{in} = Sound power level intake side
q_V = Air flow · p_{fs} = Pressure increase

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