S4E420-BU01-07

AC axial fan

sickled blades (S series)

with guard grille for full nozzle

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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**S4E420-BU01-07**
Motor	**M4E094-EA**

Phase		1~	1~
Nominal voltage	VAC	230	230
Frequency	Hz	50	60
Type of data definition		ml	ml
Valid for approval / standard		CE	CE
Speed	min^{-1}	1300	1430
Power input	W	280	370
Current draw	A	1.22	1.61
Motor capacitor	µF	7	7
Capacitor voltage	VDB	400	400
Max. back pressure	Pa	115	75
Min. ambient temperature	°C	-40	-40
Max. ambient temperature	°C	70	65
Starting current	A	1.9	1.85

ml = max. load · me = max. efficiency · fa = running at free air · cs = customer specs · cu = customer unit
Subject to alterations

Data according to ErP directive

Installation category	A
Efficiency category	Static
Variable speed drive	No
Specific ratio*	1.00

* Specific ratio = 1 + p_{fs} / 100 000 Pa

		Actual	Request 2013	Request 2015
Overall efficiency η_{es}		30.1	26	30
Efficiency grade N		40.1	36	40
Power input P_e	kW	0.26		
Air flow q_v	m^3/h	3200		
Pressure increase p_{fs}	Pa	89		
Speed n	min^{-1}	1325		

Data established at point of optimum efficiency

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Technical features

Mass	6.1 kg
Size	420 mm
Surface of rotor	Coated in black
Material of impeller	PP plastic
Material of guard grille	Steel, coated in black plastic (RAL9005)
Number of blades	5
Direction of air flow	"A"
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 54
Insulation class	"F"
Humidity class	F4-1
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible ambient motor temp. (transp./storage)	- 40 °C
Mounting position	Shaft horizontal or rotor on bottom; rotor on top on request
Condensate discharge holes	Rotor-side
Operation mode	S1
Motor bearing	Ball bearing
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	<= 3.5 mA
Motor protection	Thermal overload protector (TOP) wired internally
Cable exit	Axial
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60034-1 (2004); CE

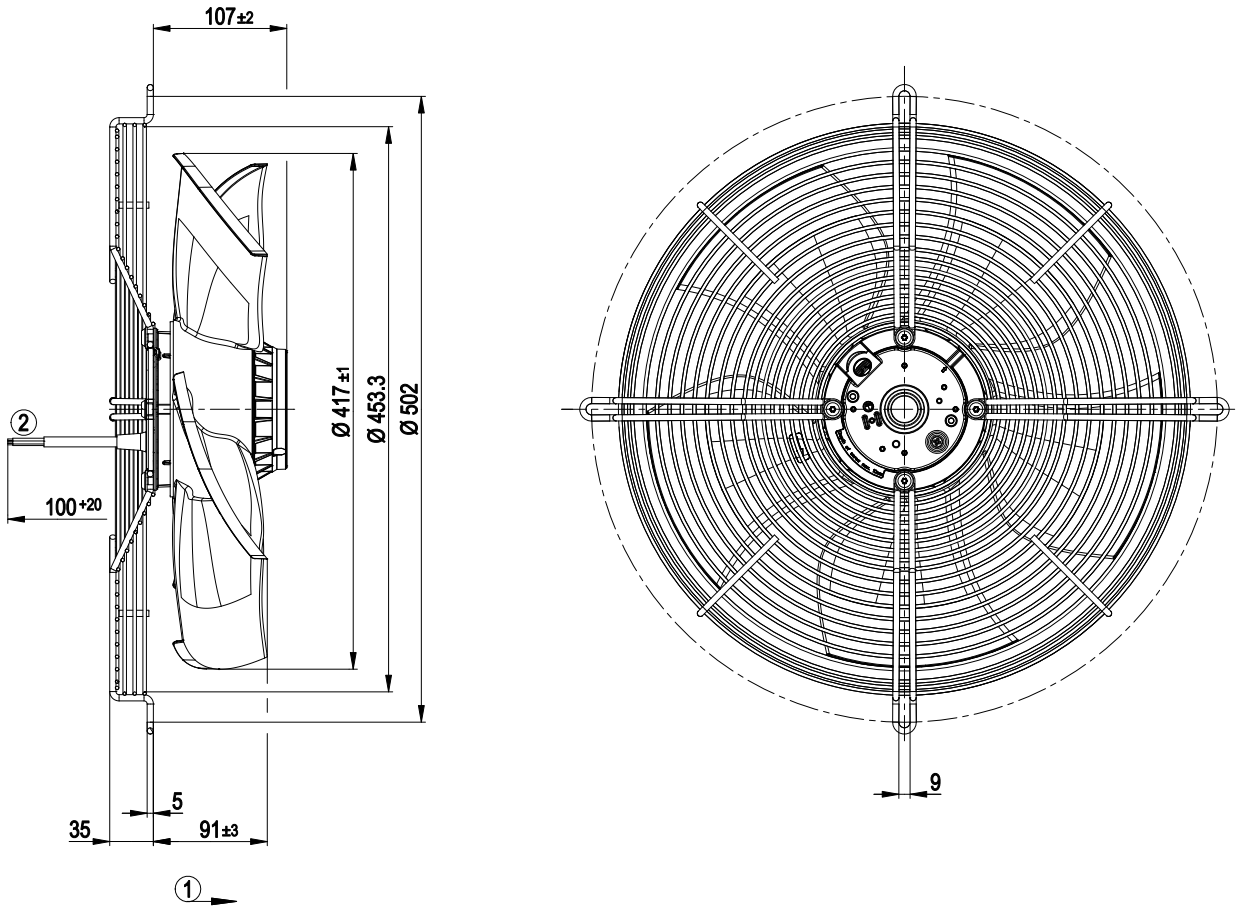
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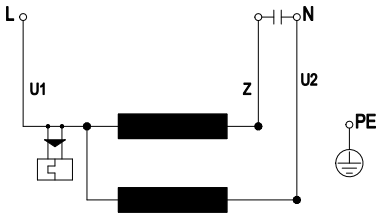
with guard grille for full nozzle

Product drawing



1	Direction of air flow "A"
2	Connection line Dipotherm 0.5mm², 4x brass lead tips crimped

Connection screen



U1	blue	Z	brown	U2	black
PE	green/yellow				

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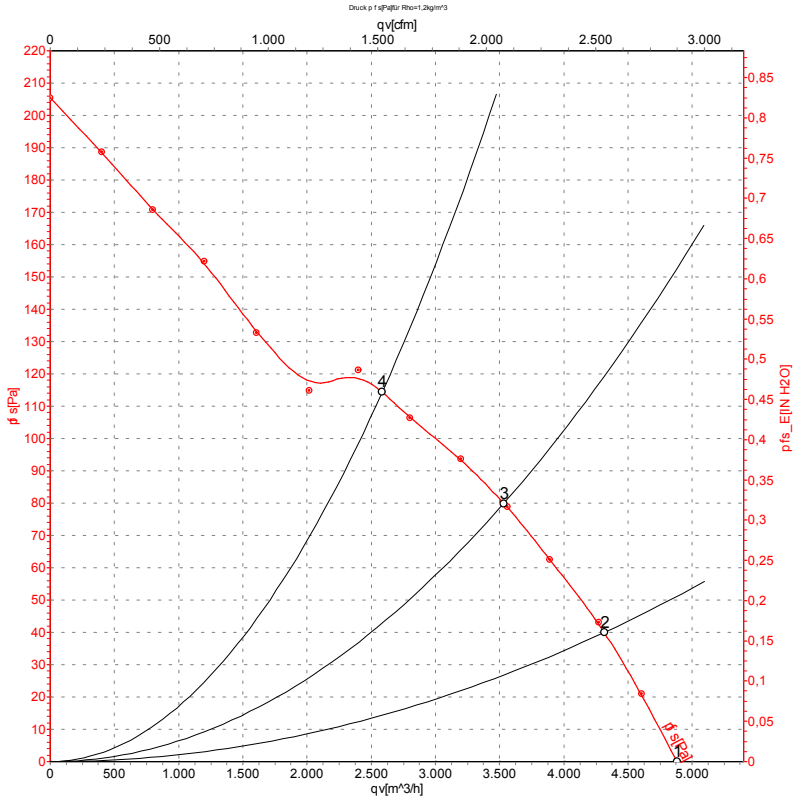
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Charts: Air flow 50 Hz



Measurement: LU-67766

Air performance measured as per ISO 5801 Installation category A. For detailed information on the measuring set-up, please contact ebm-papst. Suction-side noise levels: LwA measured as per ISO 13347 / LpA measured with 1m distance to fan axis. The values given are valid under the measuring conditions mentioned above and may vary according to the actual installation situation. With any deviation from the standard set-up, the specific values have to be checked and reviewed with the unit installed.

Measured values

	U	f	n	P_e	I	qv	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa
1	230	50	1380	222	1.00	4880	0
2	230	50	1355	240	1.07	4315	40
3	230	50	1330	257	1.14	3530	80
4	230	50	1300	280	1.22	2585	115

U = Supply voltage · f = Frequency · n = Speed · P_e = Power input · I = Current draw · qv = Air flow · p_{fs} = Pressure increase

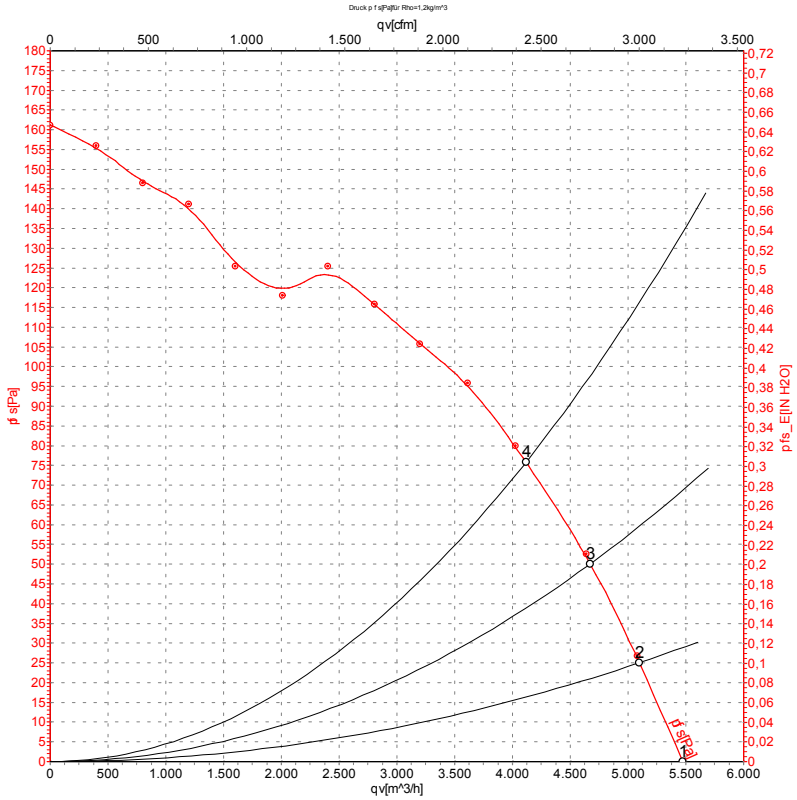
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Charts: Air flow 60 Hz



Measurement: LU-67767

Air performance measured as per ISO 5801 Installation category A. For detailed information on the measuring set-up, please contact ebm-papst. Suction-side noise levels: LwA measured as per ISO 13347 / LpA measured with 1m distance to fan axis. The values given are valid under the measuring conditions mentioned above and may vary according to the actual installation situation. With any deviation from the standard set-up, the specific values have to be checked and reviewed with the unit installed.

Measured values

	U	f	n	P_e	I	qv	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa
1	230	60	1540	344	1.53	5470	0
2	230	60	1510	353	1.56	5095	25
3	230	60	1475	360	1.58	4670	50
4	230	60	1430	370	1.61	4115	75

U = Supply voltage · f = Frequency · n = Speed · P_e = Power input · I = Current draw · qv = Air flow · p_{fs} = Pressure increase

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