S4D450-GA20-18

Güntner

AC axial fan

sickled blades (S series)

with guard grille for short nozzle

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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**S4D450-GA20-18**
Motor	**M4D094-HA**

Phase		3~	3~
Nominal voltage	VAC	400	400
Connection		Y	Y
Frequency	Hz	50	60
Type of data definition		cu	cu
Valid for approval / standard		-	-
Speed	min^{-1}	1270	1290
Power input	W	380	520
Current draw	A	0.66	0.88
Max. back pressure	Pa	70	72
Min. ambient temperature	°C	-40	-40
Max. ambient temperature	°C	90	60
Starting current	A	1.8	1.7
Maximum safe operating spee	min^{-1}	1800	1800

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}	%	31.3	27	31
Efficiency grade N		40.3	36	40
Power input P_e	kW	0.38		
Air flow q_v	m^3/h	4010		
Pressure increase p_{fs}	Pa	107		
Speed n	min^{-1}	1265		

Data definition with optimum efficiency. LU-142872
The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.

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Technical features

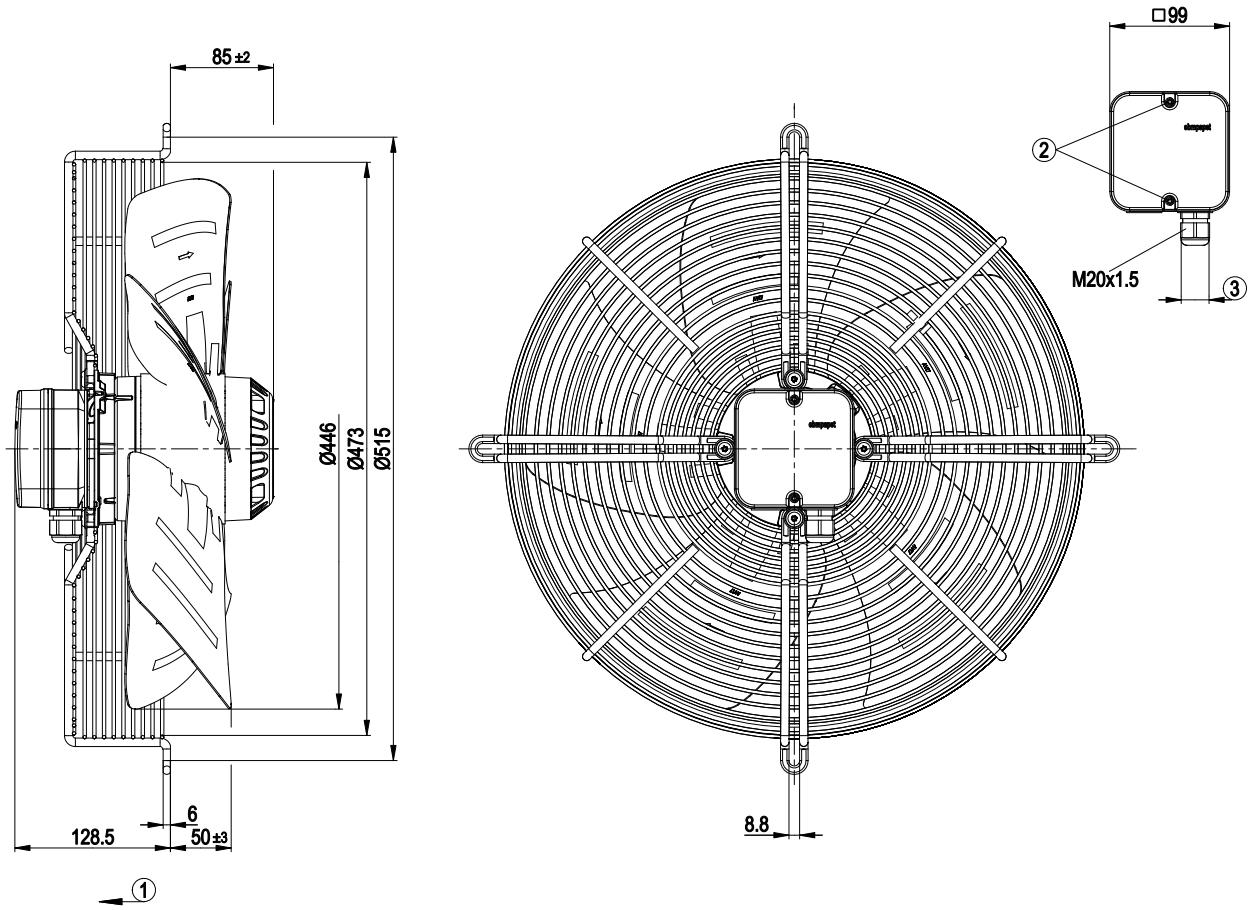
Mass	10.5 kg
Size	450 mm
Surface of rotor	Coated in black
Material of blades	Sheet steel, coated in black
Material of guard grille	Steel, coated in black plastic (RAL9005)
Number of blades	5
Direction of air flow	"V"
Direction of rotation	Counter-clockwise, seen on rotor
Type of protection	IP 54
Insulation class	"F"
Humidity class	F3-1
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
Electrical leads	Via terminal box
Motor protection	Thermal overload protector (TOP) wired internally
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60034-1 (2010); CE
Approval	UL 1004-1; CSA C22.2 Nr.100

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Product drawing



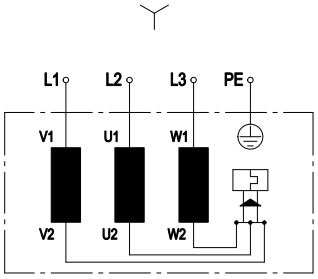
1	Direction of air flow "V"
2	Tightening torque 1.5±0.2 Nm
3	Cable diameter: min. 6 mm, max. 12 mm; tightening torque 2±0.15 Nm

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Connection screen



Note: Change direction of rotation by reversing two phases

Y	Star connection	L1	=U1=black	L2	=V1=blue
L3	=W1=brown	PE	green / yellow		

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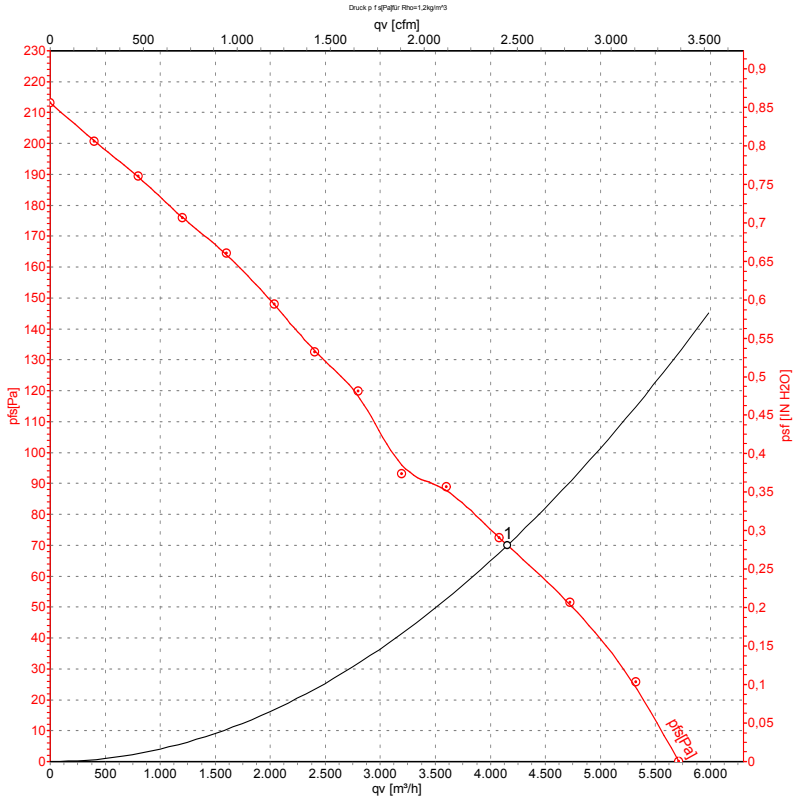
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Charts: Air flow 50 Hz



Measurement: LU-59825

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	400	50	1270	380	0.66	4155	70

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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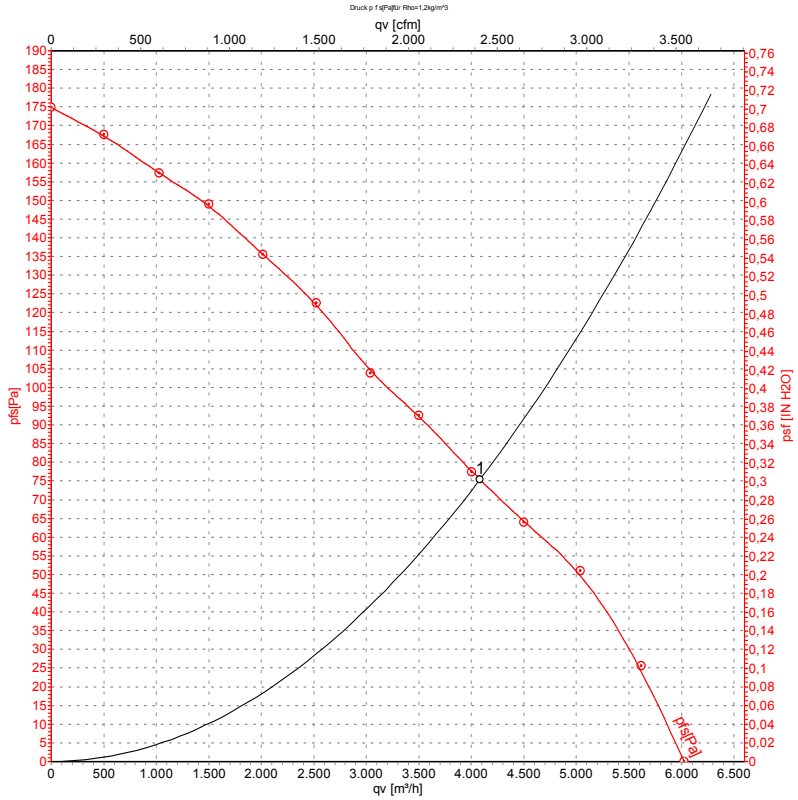
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Charts: Air flow 60 Hz



Measurement: LU-59824

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	400	60	1290	520	0.88	4085	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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