8322000002
VMA0500H5RMZ

AC axial fan - HyBlade

sickle-shaped blades (S series)

with guard grille for short nozzle

ebm-papst Ventilator (Xi'an) Co.,Ltd.
No.2555, No.5 Weishui Road, Weibei Industry Park, Lintong District, Xi'an, China, 710605
8322000002 ebmpapst Datasheet
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Nominal data

Type	8322000002
Motor	**M4D110-GF**

Phase		3~	3~	3~	3~	3~	3~
Nominal voltage	VAC	230	230	277	400	400	480
Wiring		Δ	Δ	Δ	Y	Y	Y
Frequency	Hz	50	60	60	50	60	60
Method of obtaining data		ml	ml	ml	ml	ml	ml
Valid for approval/standard		CE	CE	CE	CE	CE	CE
Speed (rpm)	min^{-1}	1350	1510	1590	1350	1510	1590
Power consumption	W	690	950	1050	690	950	1050
Current draw	A	2.34	2.77	2.72	1.35	1.6	1.57
Max. back pressure	Pa	155	145	160	155	145	160
Max. back pressure	in. wg	0.62	0.58	0.64	0.62	0.58	0.64
Min. ambient temperature	°C	-40	-40	-40	-40	-40	-40
Max. ambient temperature	°C	65	60	60	65	60	60
Starting current	A	10.6	9.7	12.1	6.1	9.6	7.0

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_{es}	%	37.9	32.6
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		45.3	40
05 Variable speed drive		No	

09 Power consumption P_e	kW	0.68
09 Air flow q_v	m^3/h	6310
09 Pressure increase p_{fs}	Pa	148
10 Speed (rpm) n	min^{-1}	1360
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-17755

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Technical description

Weight	13 kg
Size	500 mm
Motor size	110
Rotor surface	Painted black
Terminal box material	PP plastic
Blade material	Press-fitted sheet steel blank, sprayed with PP plastic
Guard grille material	Steel, coated with black plastic (RAL 9005)
Number of blades	5
Airflow direction	V
Direction of rotation	Counterclockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"F"
Impulse voltage insulation class (IVIC)	C (the maximum allowable peak/peak operating voltage between phases is 5.9×U_N, while the maximum allowable peak/peak operating voltage between phases and ground is 4.2×U_N. U_N is maximum allowable operating voltage at the machine terminals.)
Moisture (F) / Environmental (H) protection class	H2+S
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	Shaft horizontal or rotor on bottom; rotor on top on request
Condensation drainage holes	On rotor side
Mode	S1
Motor bearing	Ball bearing
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Electrical hookup	Terminal box
Motor protection	Thermal overload protector (TOP) with basic insulation
With cable	Axial
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60034-1 (2010); CE
Approval	CCC; EAC; CSA C22.2 No. 100; UL 1004-1; VDE

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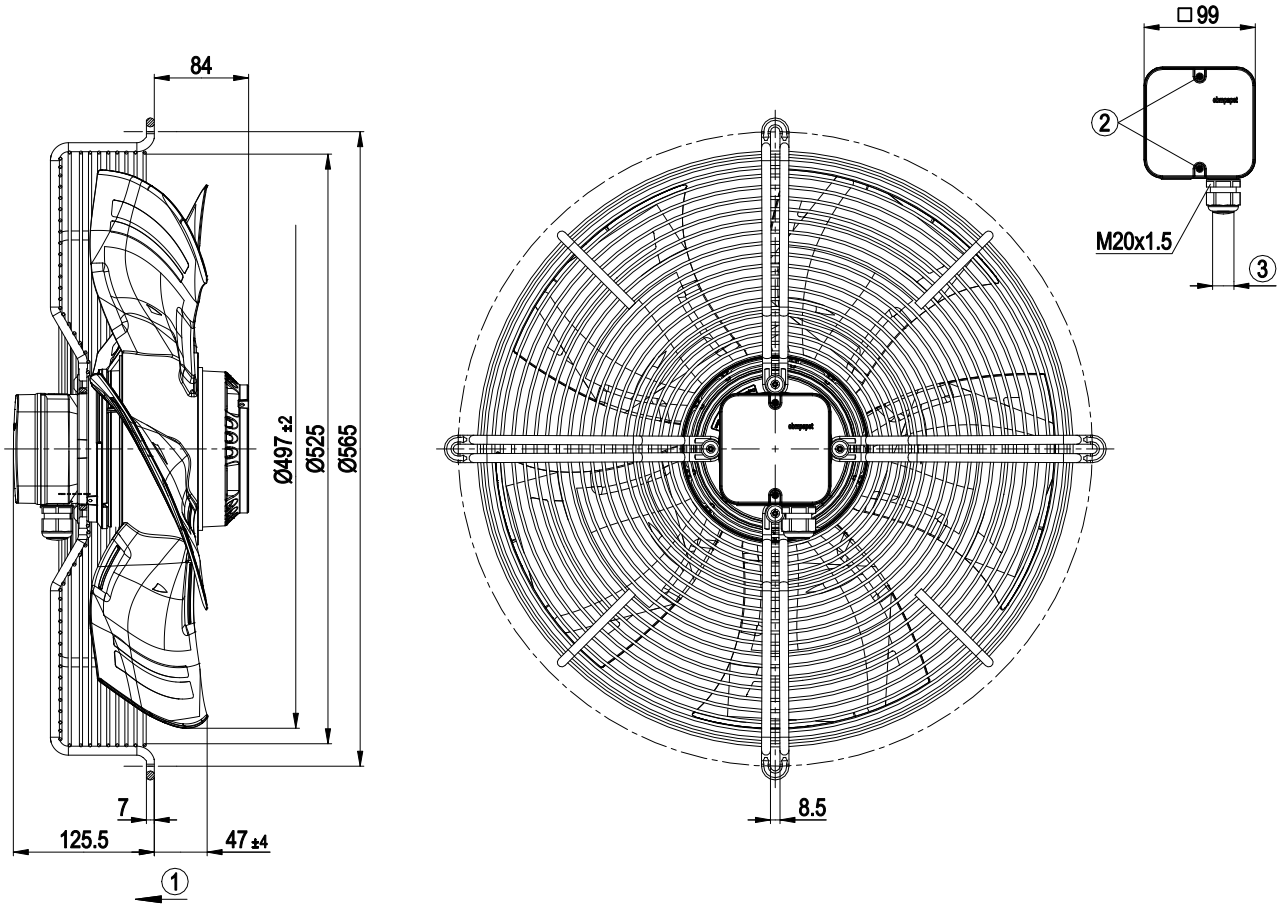
Product drawing



1	Airflow direction "V"
2	Tightening torque 1.5 ± 0.2 Nm
3	Cable diameter min. 6 mm, max. 12 mm, tightening torque 2 ± 0.3 Nm

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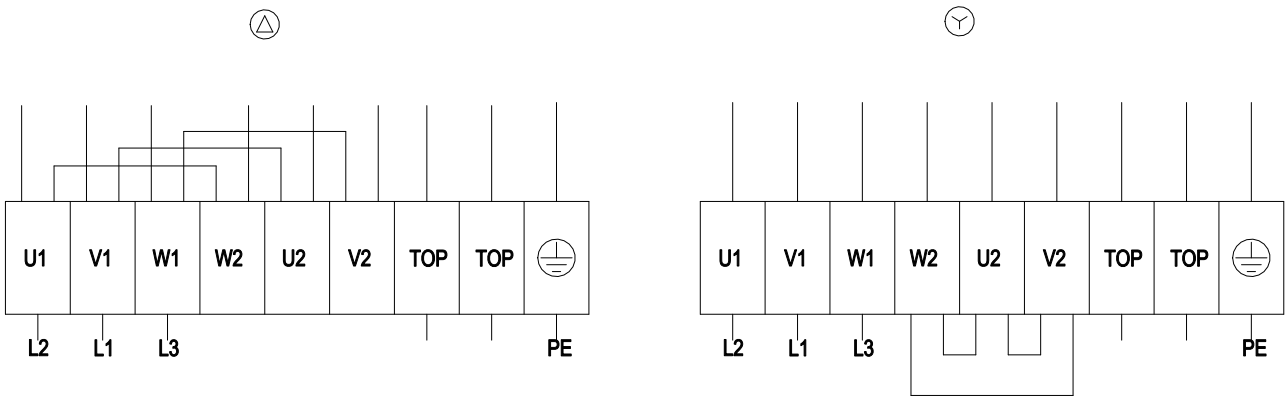
Connection diagram



Δ	Delta connection	Y	Star connection	L1	= V1 = blue
L2	= U1 = black	L3	= W1 = brown	W2	yellow
U2	green	V2	white	TOP	2x gray
PE	green/yellow				

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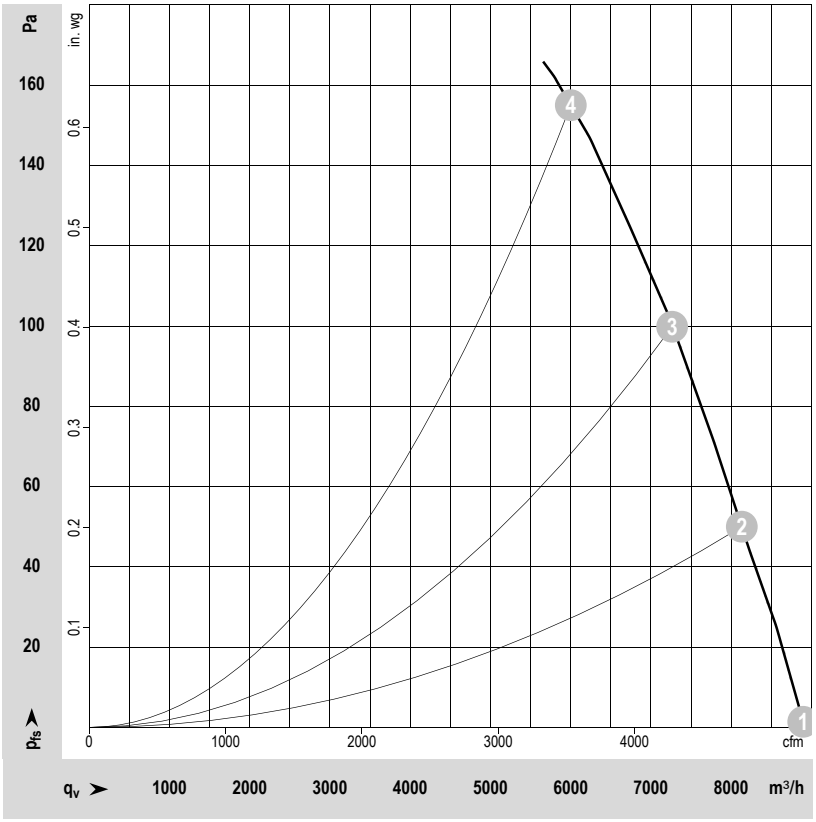
Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-17981

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}
		V	Hz	min^{-1}	W	A	m^3/h	Pa
1	Y	400	50	1406	495	1.14	8898	0
2	Y	400	50	1391	555	1.21	8132	50
3	Y	400	50	1377	610	1.26	7264	100
4	Y	400	50	1362	664	1.33	6001	155

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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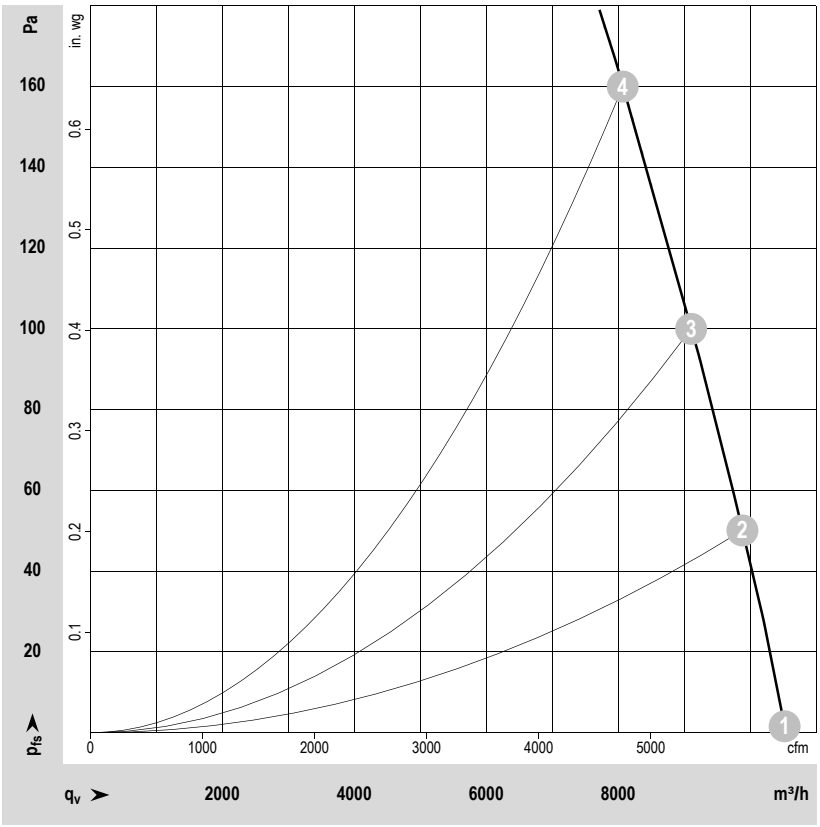
Curves: Air performance 60 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-17982

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}
		V	Hz	min^{-1}	W	A	m^3/h	Pa
1	Y	480	60	1654	803	1.33	10521	0
2	Y	480	60	1638	875	1.41	9881	50
3	Y	480	60	1622	949	1.49	9105	100
4	Y	480	60	1605	1023	1.57	8068	160

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