

AC axial fan - HyBlade

sickle-shaped blades (S series)
with support ring, for barn ventilation

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Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	S6E630-DN01-35	
Motor	M6E110-GF	
Phase		1~
Nominal voltage	VAC	230
Frequency	Hz	50
Method of obtaining data		ml
Valid for approval/standard		CE
Speed (rpm)	min ⁻¹	860
Power consumption	W	600
Current draw	A	2.62
Capacitor	µF	14
Capacitor voltage	VDB	400
Capacitor standard		S0 (CE)
Max. back pressure	Pa	100
Max. back pressure	in. wg	0.4
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	55
Starting current	A	4.8

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}	%	32.2	32.2	09 Power consumption P_e	kW	0.59
02 Measurement category		A		09 Air flow q_v	m ³ /h	6725
03 Efficiency category		Static		09 Pressure increase p_{fs}	Pa	98
04 Efficiency grade N		40	40	10 Speed (rpm) n	min ⁻¹	865
05 Variable speed drive		No		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 = $1 + p_g / 100\,000\text{ Pa}$

LU-105789



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Technical description

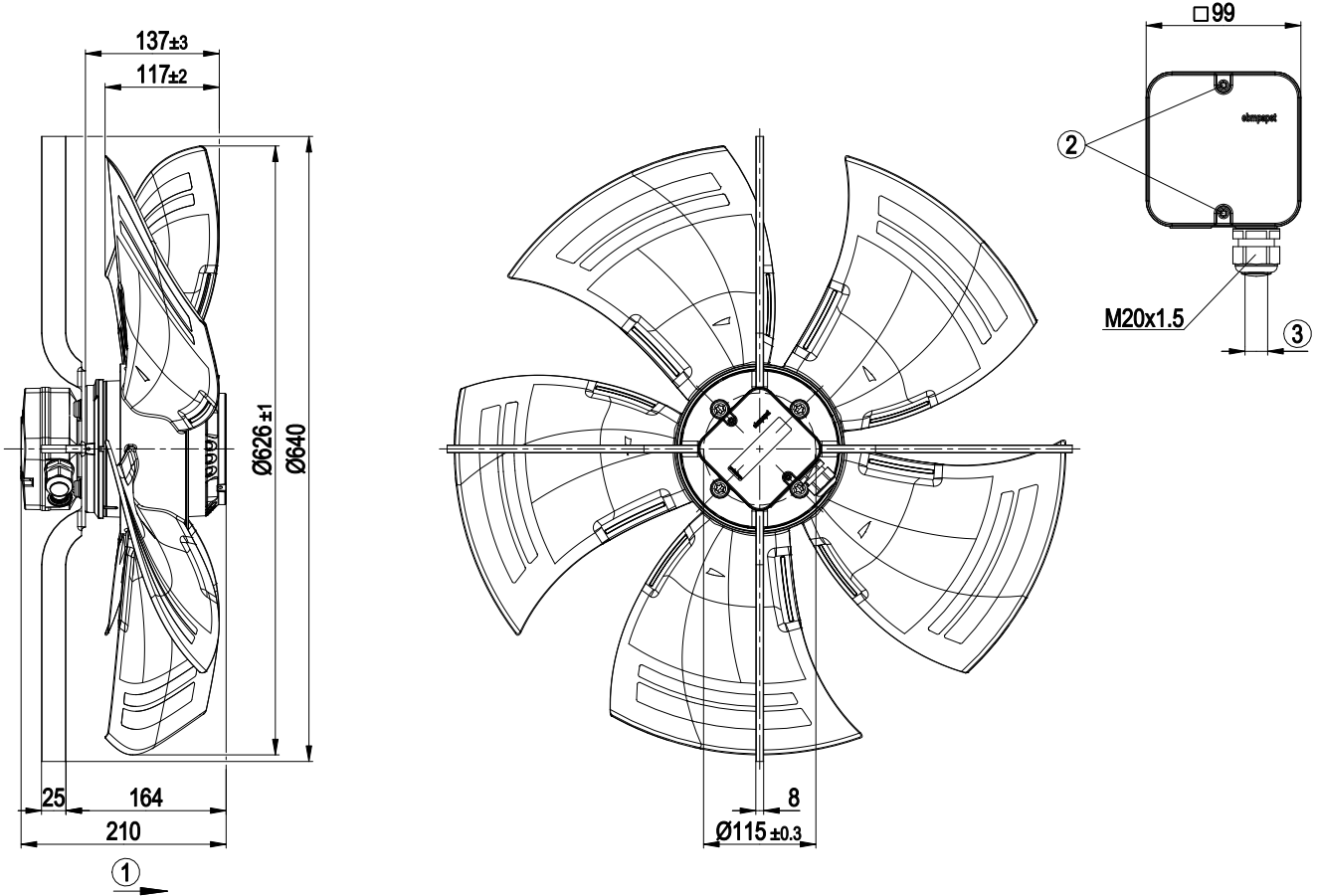
Weight	11.8 kg
Fan size	630 mm
Rotor surface	Painted black
Terminal box material	PP plastic
Blade material	Press-fitted, painted sheet steel blank, sprayed with PP plastic
Support ring material	Steel, coated with black plastic (RAL 9005)
Number of blades	5
Airflow direction	"A"
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"F"
Moisture (F) / Environmental (H) protection class	H2+
Ambient temperature note	Occasional start-up between -40°C and -25°C is permissible. For continuous operation at temperatures below -25°C (e.g. refrigeration applications) we recommend our 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 top; rotor on bottom on request
Condensation drainage holes	On stator side
Mode	S1
Motor bearing	Ball bearing
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Electrical hookup	Via terminal box, capacitor integrated and connected
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	S0
Conformity with standards	EN 61800-5-1; EN 60034-1 (2010); CE
Approval	VDE; EAC



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Product drawing



1	Direction of air flow "A"
2	Tightening torque 1.5 ± 0.2 Nm
3	Cable diameter min. 6 mm, max. 12 mm, tightening torque 2 ± 0.3 Nm

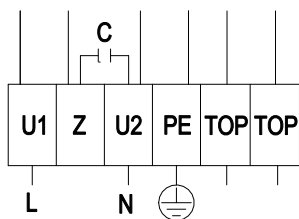


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Connection diagram



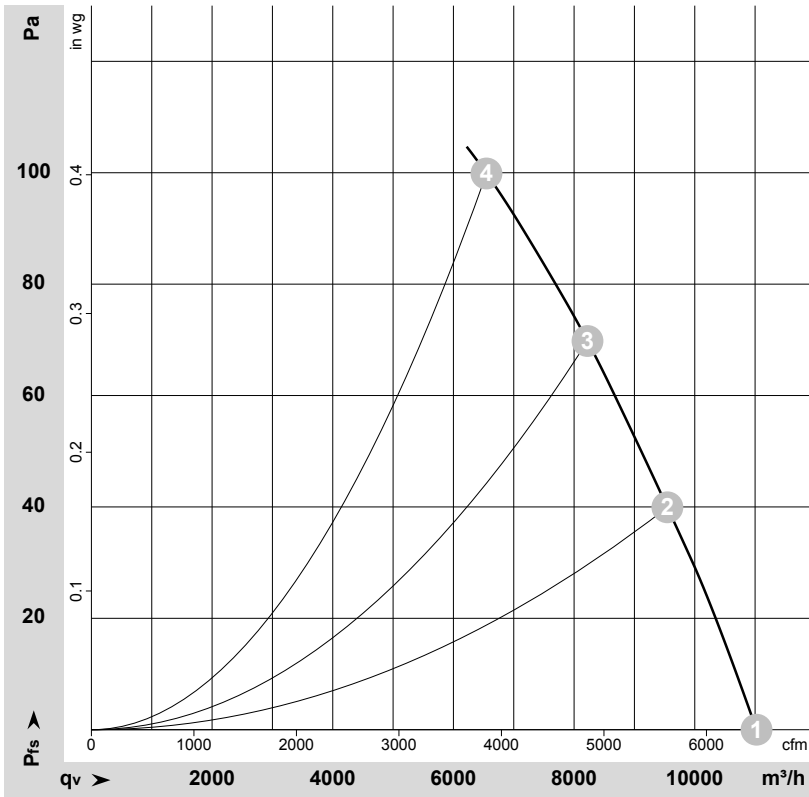
L	= U1 = blue	Z	brown	N	= U2 = black
PE	green/yellow	TOP	gray		



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Curves: Air performance 50 Hz



$\rho = 1.177 \text{ kg/m}^3 \pm 2 \%$

Measurement: LU-105789-1

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}	LwA _{out}	q _v	p _{fs}	q _v	p _{fs}
	V	Hz	min ⁻¹	W	A	dB(A)	dB(A)	dB(A)	m ³ /h	Pa	cfm	in. wg
1	230	50	925	467	2.04	64	70	70	11025	0	6490	0.00
2	230	50	905	522	2.27	61	67	67	9545	40	5620	0.16
3	230	50	885	559	2.44	60	66	65	8220	70	4840	0.28
4	230	50	860	600	2.62	61	68	67	6550	100	3855	0.40

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
LwA_{out} = Sound power level outlet side · q_v = Air flow · p_{fs} = Pressure increase

