

AW Axial Fans

Low pressure axial wall fans up to 39.000 m³/h

- Available with AC and EC motors for 50 and 60Hz
- Installation in any position
- Noise and energy optimized impeller

[Find more details in our online catalogue](#)



Flexible

The AW fans are **designed** for extracting air in **low pressure systems**. They can be installed in any position and way according to your demands.

This ensures that the fans can be used in a variety of **commercial** and **industrial** applications.

Performance

The **noise optimized** axial impellers together with the **high efficient** external rotor motors are designed to ensure high-level performance to **minimize power consumption** and **maximize efficiency**.

Certifications



Green Ventilation

Features

Construction

The square wall plate is made of galvanized steel with powder coating in RAL9005.

The range with **AC motors**, sizes **200-630** are provided **with inlet protection grid** and sizes **710-1000 without inlet protection grid**.

The **complete** range with **EC motors** is provided **with inlet protection grid**.

Depending on the type, the fans are equipped with an external **terminal box**, protection class **IP44, IP54 or IP55**.

Impeller

The AW fans use **axial impellers**. These are made of **coated steel**, **composite** material or **aluminum**, are dynamically **balanced** and are paired with corresponding external rotor motors.

Motor

Depending on type, AW fans are equipped with an **AC** or **EC external rotor motor**. The motors are suitable for **50Hz** and **60Hz**.

Motor protection

Sizes **200-300** with **AC** motors are available with **integrated** thermal protection with manual (electrical) reset.

Sizes **200-1000** with **AC** motors are available with prewired integral **thermal contact** with leads to a **motor protection device**.

Models with **EC** motors have an **integrated** electronic, **thermal protection** including **locked-rotor protection** and **soft-start**.

Control

EC motors can be controlled by an external **signal of 0-10V**.

EC motors depending on size are also equipped with **ModBus** communication or **alarm signal**.

AC motors can be controlled by **5-step**, **stepless** speed regulator or **frequency inverter**.

Installation

The AW fans can be installed in **any position** on **wall** or **ceiling** in **indoor** environments.

Technical parameters

Nominal data

Voltage (nominal)	230	V
Frequency	60; 50	Hz
Phases	1~	
Input power	752	W
Input current	3.35	A
Impeller speed	1,429	rpm
Air flow	max 2.569	m³/s
Air flow at max. efficiency	1.625	m³/s
Specific ratio	1,000000	
Temperature of transported air	max 60	°C
Max temperature of transported air, when speed controlled	60	°C

Protection/Classification

Enclosure class, motor	IP54
Insulation class	B

Data according to ErP

ErP ready	ErP 2018
Measurement category	A
Efficiency grade	48.8 η_{actual}
Efficiency, static	41.6 η_{statA}
Target efficiency grade ErP2013	36 $\eta_{target2013}$
Target efficiency grade ErP2015	40 $\eta_{target2015}$

Dimensions and weights

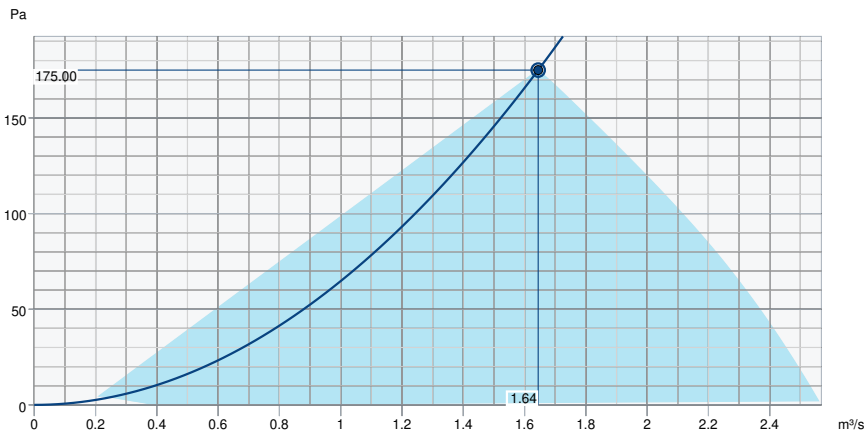
Weight	15.4	kg
--------	------	----

Others

Color name, casing	Black
Motor type	EC

Performance

Performance curve



Hydraulic data

Required air flow	1.64 m³/s
Required static pressure	175 Pa
Working air flow	1.64 m³/s
Working static pressure	175 Pa
Air density	1.204 kg/m³
Power	751.6 W
Fan control - RPM	1,429 rpm
Current	3.30 A
SFP	0.457 kW/m³/s
Control voltage	10.0 V
Supply voltage	230 V

Sound power level		63	125	250	500	1k	2k	4k	8k	Total
Inlet	dB(A)	57	60	62	66	68	69	66	59	74

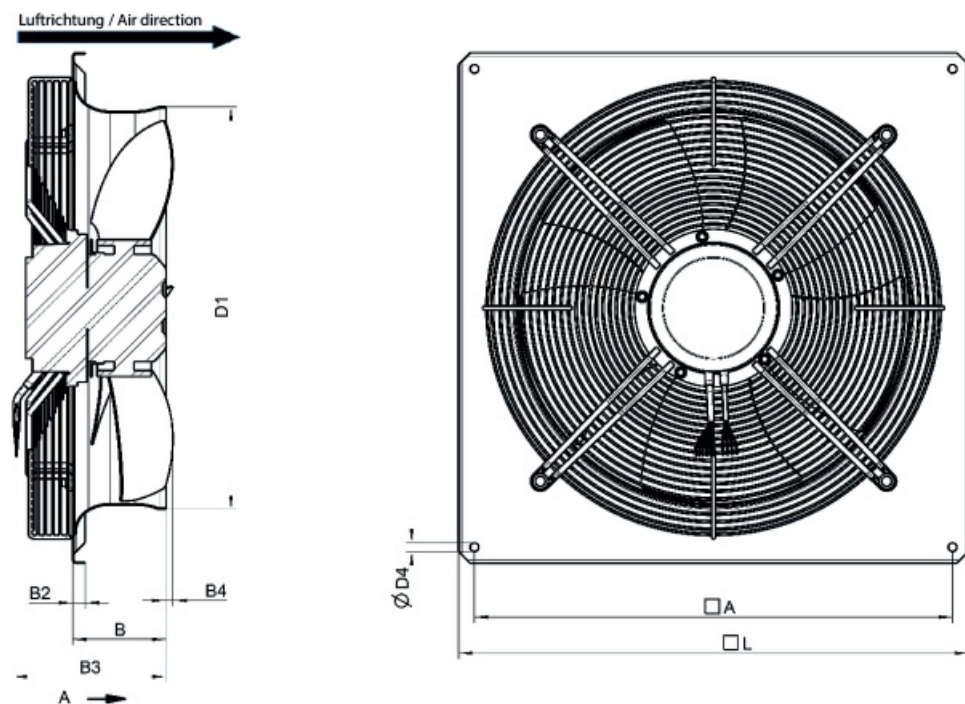
Accessories

Ecodesign

Ecodesign 327

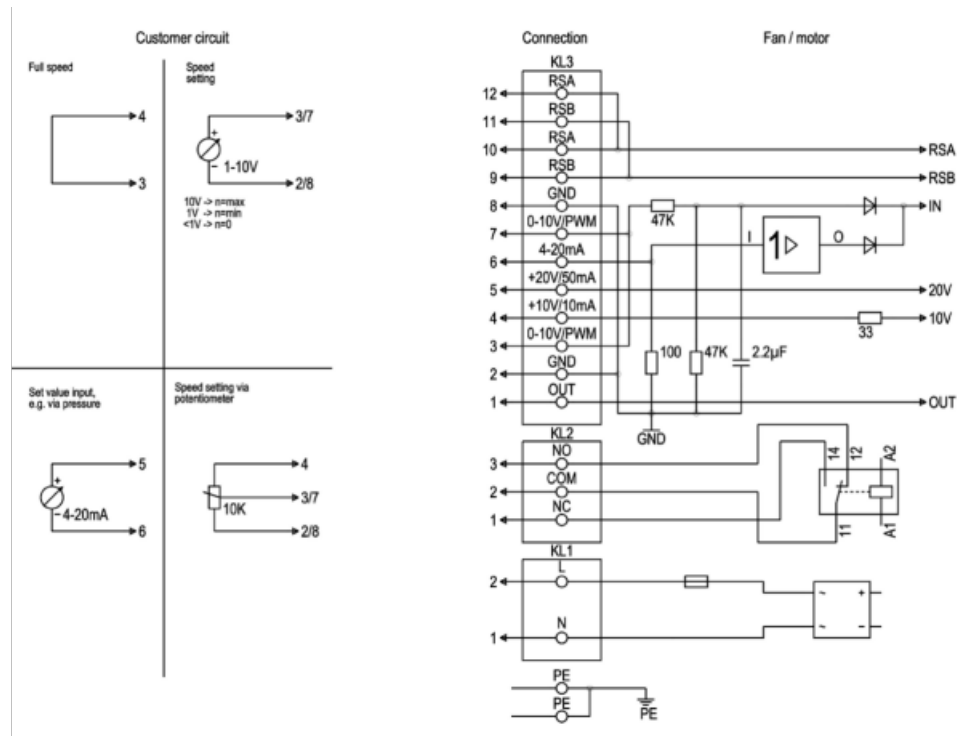
Manufacturer	Systemair GmbH
Type	AW 500 EC
Year of manufacture	See name plate of the fan
Air flow qv	1.625 m ³ /s
Efficiency category	static
Efficiency grade N	48.8
Efficiency grade target N	40
Speed (rpm) n	1,425 rpm
Pressure increase total psf	173 Pa
Power consumption Ped	730 W
Overall efficiency	41.6 %
Overall efficiency target	32.8 %
Variable speed drive	Yes
Additional components	Components used to calculate the energy efficiency that are not apparent from the measurement category are detailed in the CE declaration.
Maintenance	Information on installation, operation and maintenance is provided in the operating instructions.
Recycling / disposal	Information on recycling and disposal is provided in the operating instructions.

Dimension



	□A	B	B2	B3	B4	ØD1	ØD4	□L
AW 500 EC sileo	615	120	16	181	5	517	11	656

Wiring



No.	Pin	Signal	Function / assignment
PE	-	PE	Protective earth connection
KL1	1, 2	N, L	Supply voltage, 50/60 Hz
KL2	1	NC	Floating status message contact, break for failure
KL2	2	COM	Floating status message contact, changeover contact, common connection (2 A, max. 250 VAC, min. 10 mA, AC1)
KL2	3	NO	Floating status message contact, normally open, make for failure
KL3	1	OUT	Analogue output, 0-10 VDC, max. 3 mA, SELV, Output of the current motor level control coefficient: 1 V corresponds to 10% level control coefficient, 10 V correspond to 100% level control coefficient.
KL3	2, 8	GND	Reference mass for control interface, SELV
KL3	3, 7	0-10 V	Use control / actual value input 0-10 VDC, impedance 100 kΩ only as alternative to 4-20 mA input, SELV
KL3	4	+10 V	Voltage output 10 VDC (+/- 3%), max. 10 mA, Supply voltage for ext. devices (e.g. potentiometer), SELV
KL3	5	+20 V	Voltage output 20 VDC (+25%/-10%), max. 50 mA, Supply voltage for ext. devices (e.g. sensors), SELV
KL3	6	4-20 mA	Use control / actual value input 4-20 mA, impedance 100 Ω, only as alternative to 0-10 V input, SELV
KL3	9, 11	RSB	RS485 interface for MODBUS, RSB
KL3	10, 12	RSA	RS485 interface for MODBUS, RSA

Accessories

- EC-Basic-CO2 and temperature (24808)
- EC-Basic-T temperature (24805)
- EC-Vent control board (3115)
- MTP 10, 10K, Speed control (32731)
- Potentiometer MTP 20, 0-10V (310220)
- SG AW-D BGr 050, RAL 9005 (30603)
- Step switch S-5EC-2, 0-10V (449084)
- EC-Basic-H humidity (24807)
- EC-Basic-U universal 0-10V (24806)
- EC-Vent Room Unit (3018)
- MTV-1/010 Controller 0..10V+ (30650)
- REV-5POL/05-7,5kW R/Y (35757)
- Step switch S-5EC, 0-10V (76738)
- BMS Trickle & Boost Switch (120363)

Documents

- MANUAL_AW__AR_EBM_EN_003-MIN.PDF
- DWG - 35865
- UKCA Declaration of Conformity_001
- installation variations_2_AR_AW.pdf