

## AW Axial Fans

### Low pressure axial wall fans up to 39.000 m<sup>3</sup>/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

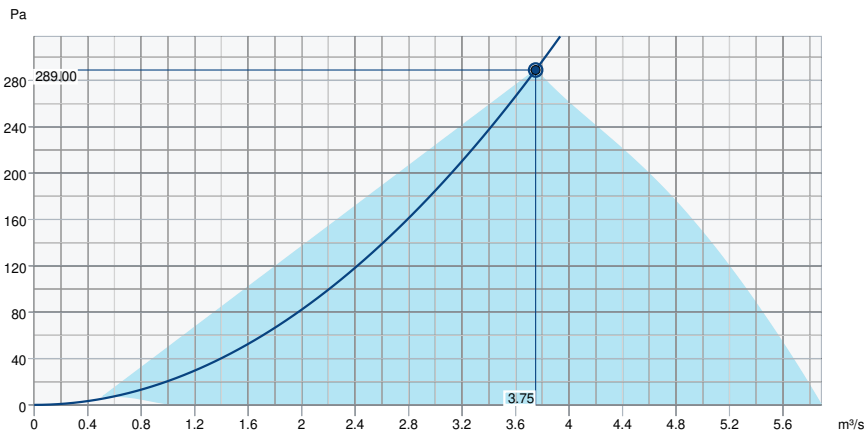
The AW fans can be installed in **any position** on **wall** or **ceiling** in **indoor** environments.

## Technical parameters

Nominal data		
Voltage (nominal)	400	V
Frequency	60; 50	Hz
Phases	3~	
Input power	3,175	W
Input current	4.88	A
Impeller speed	1,510	rpm
Air flow	max 5.888	m³/s
Air flow at max. efficiency	3.5958	m³/s
Specific ratio	1,000000	
Temperature of transported air	max 65	°C
Max temperature of transported air, when speed controlled	65	°C
Protection/Classification		
Enclosure class, motor	IP55	
Insulation class	F	
Data according to ErP		
ErP ready	ErP 2018	
Measurement category	A	
Efficiency grade	40	$\eta_{actual}$
Efficiency, static	36.9	$\eta_{statA}$
Target efficiency grade ErP2013	36	$\eta_{target2013}$
Target efficiency grade ErP2015	40	$\eta_{target2015}$
Dimensions and weights		
Weight	41.8	kg
Others		
Color name, casing	Black	
Motor type	EC	

## Performance

### Performance curve



#### Hydraulic data

Required air flow	3.75 m³/s
Required static pressure	289 Pa
Working air flow	3.75 m³/s
Working static pressure	289 Pa
Air density	1.204 kg/m³
Power	3,174.3 W
Fan control - RPM	1,503 rpm
Current	4.90 A
SFP	0.846 kW/m³/s
Control voltage	10.0 V
Supply voltage	400 V

Sound power level		63	125	250	500	1k	2k	4k	8k	Total
Inlet	dB(A)	61	69	77	81	81	79	75	70	86
Outlet	dB(A)	62	71	78	82	83	80	77	71	88

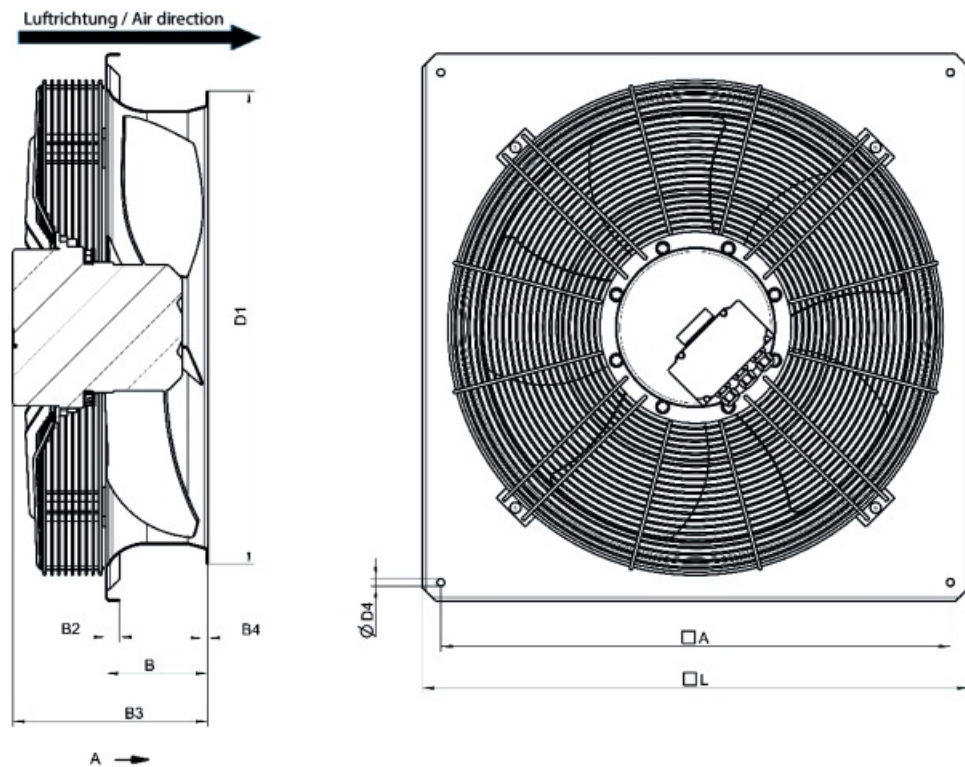
#### Accessories

Ecodesign

Ecodesign 327

Manufacturer	Systemair GmbH	
Type	AW 630D EC	
Year of manufacture	See name plate of the fan	
Air flow qv	3.5958	m³/s
Efficiency category	static	
Efficiency grade N	40	
Efficiency grade target N	40	
Speed (rpm) n	1,500	rpm
Pressure increase total psf	306	Pa
Power consumption Ped	3,220	W
Overall efficiency	36.9	%
Overall efficiency target	36.9	%
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 630D EC sileo	750	150	20	287	-	696	11	805

Wiring

8	Din 2
9	Din 3
10	GND
11	Ain 2 U
12	+ 20 V
13	Ain 2 I
14	Aout
1	RSA
2	RSB
3	GND
4	Ain 1 U
5	+ 10 V
6	Ain 1 I
7	Din 1

1	NO
2	COM
3	NC

PE
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1	L1
2	L2
3	L3

KL 3

KL 2

PE

KL 1

NO.	Pin	Signal	Function / assignment
KL 1	1	L1	Mains supply connection, supply voltage 3~380-480 VAC; 50/60 Hz
KL 1	2	L2	Mains supply connection, supply voltage 3~380-480 VAC; 50/60 Hz
KL 1	3	L3	Mains supply connection, supply voltage 3~380-480 VAC; 50/60 Hz
PE		PE	Earth connection, PE connection
KL 2	1	NO	Status relay, floating status contact; normally open; close with error
KL 2	2	COM	Status relay; floating status contact; changeover contact; common connection; contact rating 250 VAC / max. 2 A (AC1) / min. 10 mA
KL 2	3	NC	Status relay, floating status contact; break with error
KL 3	1	RSA	Bus connection RS485; RSA; MODBUS RTU
KL 3	2	RSB	Bus connection RS485; RSB; MODBUS RTU
KL 3	3 / 0	GND	Signal ground for control interface KL3
KL 3	4	Ain 1 U	Analogue input 1 (set value); 0-10 V; Ri= 100 kΩ; parametrisable curves; only usable as alternative to input Ain1 I
KL 3	5	+ 10 V	Fixed voltage output 10 VDC; ± 10 V; ± 3%; max. 10 mA; short circuit proof; power supply for ext. devices (e.g. potentiometer)

K L 3	0	V	Fixed voltage output 20 VDC; +20 V +25/-10 %; max. 50 mA; short circuit proof; power supply for ext. devices (e.g. potentiometer)
K L 3	6	A in 1 I	Analogue input 1 (set value); 4-20 mA; Ri= 100 Ω; parametrisable curves; only usable as alternative to input Ain1 U
K L 3	7	D in 1	Digital input 1: enabling of electronics; enabling: open pin or applied voltage 5 to 50 VDC; disabling: bridge to GND or applied voltage < 1 VDC; reset function: triggers software reset after a level change to <1 V
K L 3	8	D in 2	Digital input 2: parameter set switch 1/2; according to EEPROM setting, the valid/used parameter set is selectable per BUS or per digital input DIN2. Parameter set 1: open pin or applied voltage 5 to 50 VDC; parameter set 2: bridge to GND or applied voltage < 1 VDC
K L 3	9	D in 3	Digital input 3: Control characteristic of the integrated controller; according to EEPROM setting, the control characteristic of the integrated controller is normally/inversely selectable per BUS or per digital input; normal: open pin or applied voltage 5 to 50 VDC (control deviation = actual sensor value - set value) inverse: bridge to GND or applied voltage < 1 VDC (control deviation = set value - actual sensor value)
K L 3	1 1	A in 2 U	Analogue input 2; actual sensor value 0-10 V; Ri= 100 kΩ; parametrisable curve; only usable as alternative to input Ain2 I
K L 3	1 2	+ 2 0 V	Fixed voltage output 20 VDC; + 20 V +25/-10 %; max. 50 mA; short circuit proof; power supply for ext. devices (e.g. sensors)
K L 3	1 3	A in 2 I	Analogue input 2; actual sensor value 4-20 mA; Ri= 100 Ω; parametrisable curve; only usable as alternative to input Ain2 U
K L 3	1 4	A o ut	Analogue output 0-10 V; max. 5 mA; output of the actual motor control factor (output voltage of electronics)/ of the actual motor speed; function selectable per bus; parametrisable curve.



## 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)
- Step switch S-5EC, 0-10V (76738)
- BMS Trickle & Boost Switch (120363)
- 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-2, 0-10V (449084)

## Documents

- MANUAL\_AW\_\_AR\_EBM\_EN\_003-MIN.PDF
- DWG - 35872
- UKCA Declaration of Conformity\_001
- installation variations\_2\_AR\_AW.pdf