

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

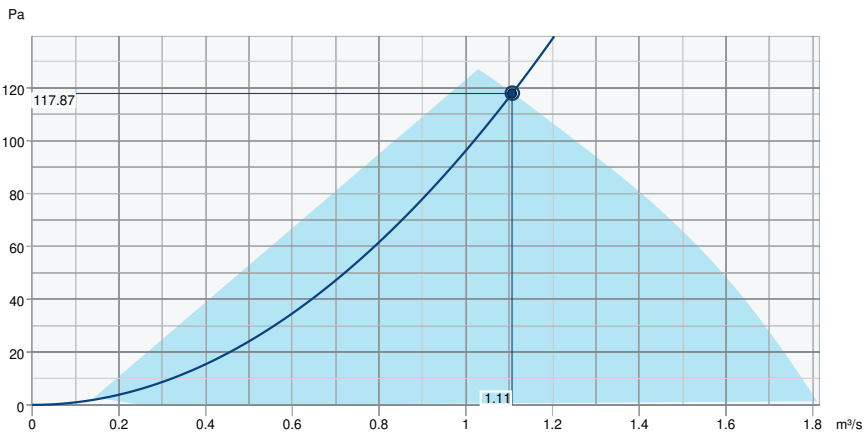
The AW fans can be installed in **any position** on **wall** or **ceiling** in **indoor** environments.

Technical parameters

Nominal data		
Voltage (nominal)	230	V
Frequency	60; 50	Hz
Phases	1~	
Input power	348	W
Input current	2.21	A
Impeller speed	1,306	rpm
Air flow	max 1.816	m³/s
Air flow at max. efficiency	1.1125	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	51.9	η_{actual}
Efficiency, static	42.6	η_{statA}
Target efficiency grade ErP2013	36	$\eta_{target2013}$
Target efficiency grade ErP2015	40	$\eta_{target2015}$
Dimensions and weights		
Weight	10.5	kg
Others		
Color name, casing	Black	
Motor type	EC	

Performance

Performance curve



Hydraulic data

Required air flow	1.11 m³/s
Required static pressure	118 Pa
Working air flow	1.11 m³/s
Working static pressure	118 Pa
Air density	1.204 kg/m³
Power	344.9 W
Fan control - RPM	1,308 rpm
Current	2.20 A
SFP	0.312 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)	48	51	56	60	63	61	58	51	67

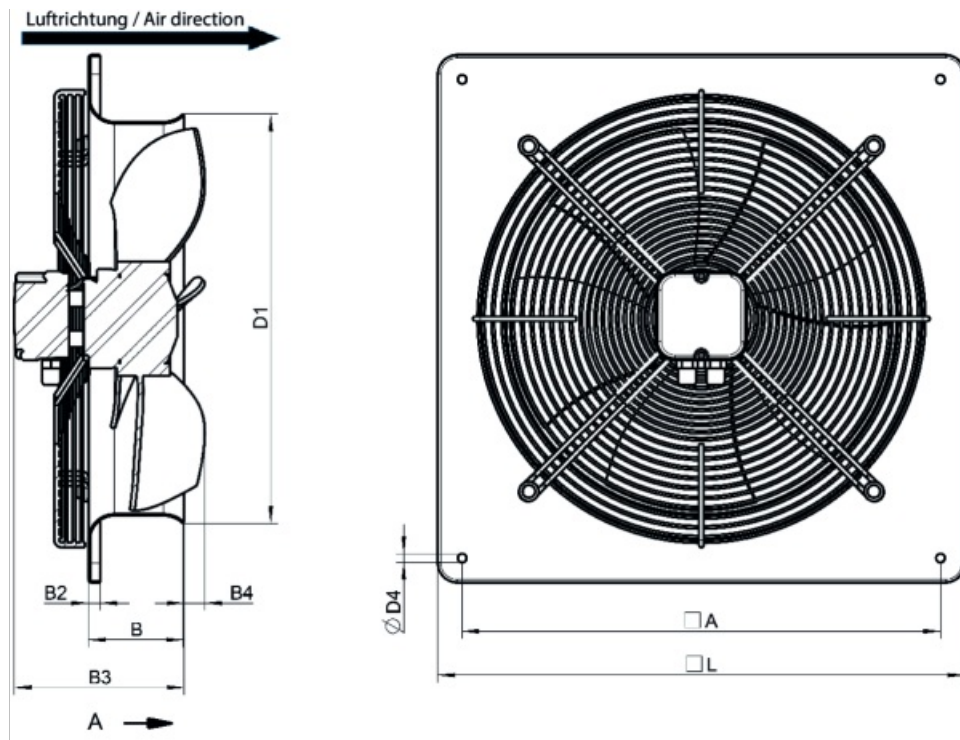
Accessories

Ecodesign

Ecodesign 327

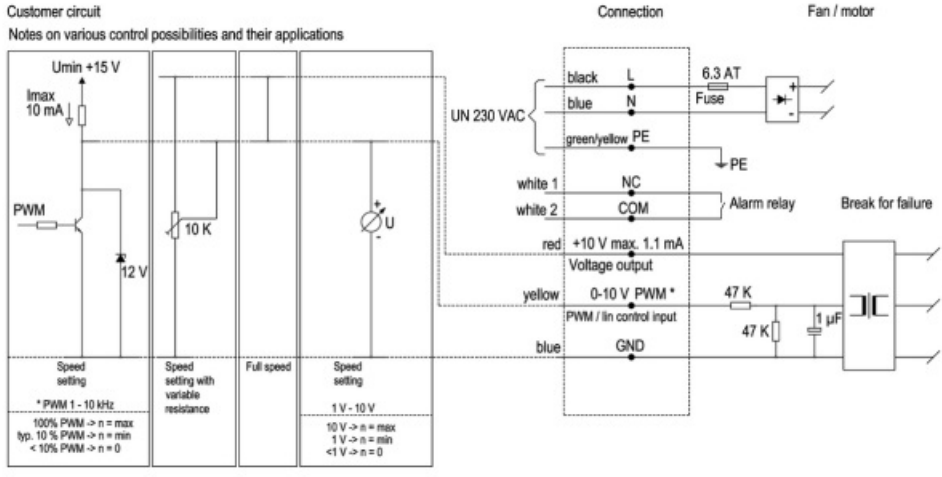
Manufacturer	Systemair GmbH
Type	AW 450 EC
Year of manufacture	See name plate of the fan
Air flow qv	1.1125 m ³ /s
Efficiency category	static
Efficiency grade N	51.9
Efficiency grade target N	40
Speed (rpm) n	1,305 rpm
Pressure increase total psf	118 Pa
Power consumption Ped	340 W
Overall efficiency	42.6 %
Overall efficiency target	30.7 %
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 450 EC sileo	535	100	14	209	-	468	11	576

Wiring



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 045/042, RAL 9005 (30602)
- Step switch S-5EC-2, 0-10V (449084)
- 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, 0-10V (76738)
- VK-45 Louvre shutter (5645)

Documents

- MANUAL_AW__AR_EBM_EN_003-MIN.PDF
- DWG - 35863
- UKCA Declaration of Conformity_001
- installation variations_2_AR_AW.pdf