AW Axial Fans

Low-pressure axial wall fans up to 39.000 m³/h

- Available with AC and EC motors for 60Hz
- Installation in any position
- Noise and energy-optimised 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-optimised** axial impellers together with the **highly efficient** external rotor motors are designed to ensure high-level performance to **minimise power consumption** and **maximise efficiency**.

Features

Construction

The square wall plate is made of galvanized steel with powder coating in RAL9005.
Sizes **200-300** with **AC motors** except AW 300E2 are available with **integrated thermostat switch**.
Sizes **315-1000** with **AC** motors and AW **300E2** are available with pre-wired integrated **thermal contact** with leads for a **motor protection device**.
The models with **EC motors** have **integrated** electronic **motor protection**.
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 **aluminium**, 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	3,073	W
Input power kW	3.073	kW
Input current	4.65	A
Impeller speed	1,100	rpm
Air flow	max 7.8494	m^3/s
Air flow at max. efficiency	5.1372	m^3/s
Temperature of transported air	max 60	°C
Max temperature of transported air, when speed controlled	60	°C

Protection/Classification		
Enclosure class, motor	IP55	
Insulation class	F	

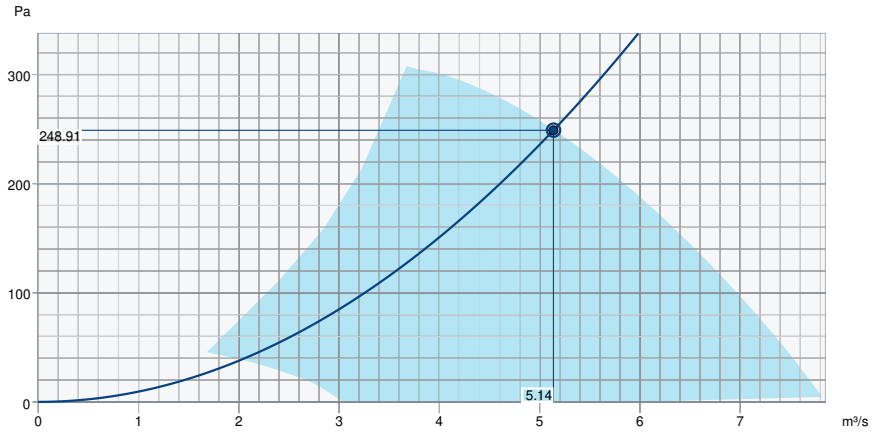
Data according to ErP		
ErP ready	ErP 2018	

Dimensions and weights		
Weight	53.5	kg

Others		
Motor type	EC	

Performance

Performance curve



Hydraulic data	
Required air flow	5.14 m³/s
Required static pressure	249 Pa
Working air flow	5.14 m³/s
Working static pressure	249 Pa
Air density	1.204 kg/m³
Power	2,870.6 W
Fan control - RPM	1,105 rpm
Current	4.36 A
SFP	0.559 kW/m³/s
Control voltage	10.0 V
Supply voltage	400 V

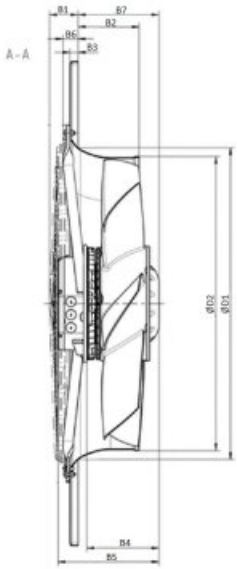
Sound power level		63	125	250	500	1k	2k	4k	8k	Total
Inlet	dB(A)	30	49	59	71	74	73	69	63	78
Outlet	dB(A)	32	51	60	72	76	74	71	65	80

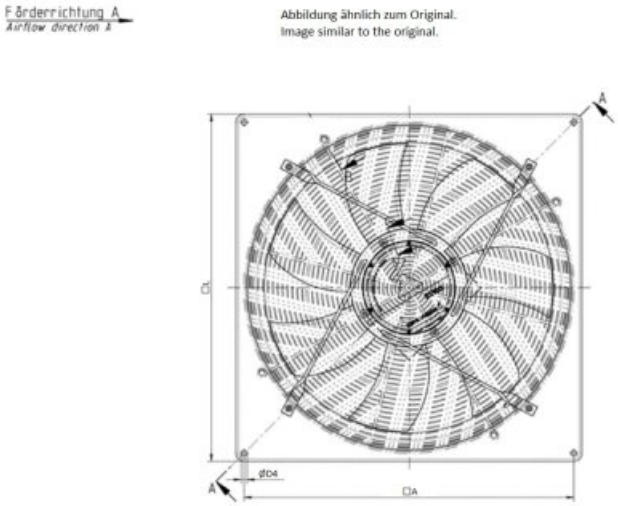
Ecodesign

Ecodesign 327		
Manufacturer	Systemair GmbH	
Type	AW 800D EC	
Year of manufacture	See name plate of the fan	
Air flow qv	5.1381	m³/s
Efficiency category	static	
Efficiency grade N	51.6	
Efficiency grade target N	40	
Speed (rpm) n	1,105	rpm
Pressure increase total psf	249	Pa
Power consumption Ped	2,870	W
Overall efficiency	44.6	%
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 mainenance is provided in the operating instructions.	
Recycling / disposal	Information on recycling and disposal is provided in the operating instructions.	

Dimension

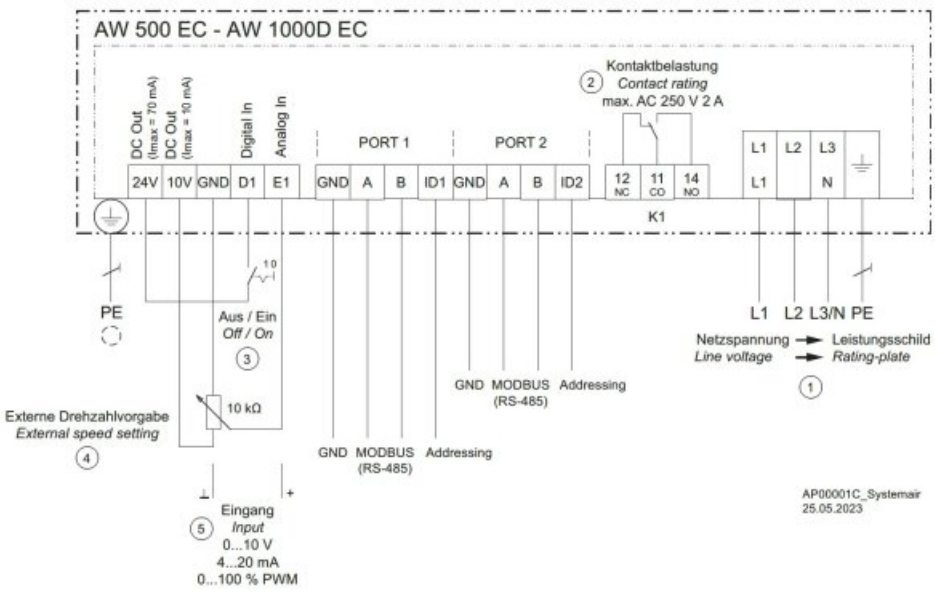
AW-EC 800D	□A	B1	B2	B3	B4	B5	B6	B7	ØD1	ØD2	ØD4	□L
[mm]	910	67	193	17	177,4	247,4	31,3	237,1	869	804	14,5	970





Wiring

No.	Function
1	Line voltage see rating plate
2	Relay output K1 for fault reporting = factory function, max. contact load AC 250 V 2 A - During operation the relay is energised, i.e. the connections 11 and 14 are bridged - In case of a fault, the relay is de-energised, i.e. the connections 11 and 12 are bridged - In case of a shutdown using the enable (D1 = Digital In 1) the relay remains energised
3	Digital enable input = factory function - Device ON when contact closed - Device Off when contact open
4	External speed setting
5	Input 0...10 V, 4...20 mA, 0...100 % PWM



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

- Operating Instructions