

## 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**.

## 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	50	Hz
Phases	1~	
Motor circuit connection	D	
Input power	600	W
Input power kW	0.6	kW
Input current	2.9	A
Impeller speed	1,390	rpm
Air flow	max 7,301	m³/h
Air flow at max. efficiency	7,300	m³/h
Specific ratio	1	
Capacitance of capacitor	14	µF
Temperature of transported air	max 70	°C
Max temperature of transported air, when speed controlled	70	°C

Protection/Classification		
Enclosure class, motor	IP54	
Insulation class	F	

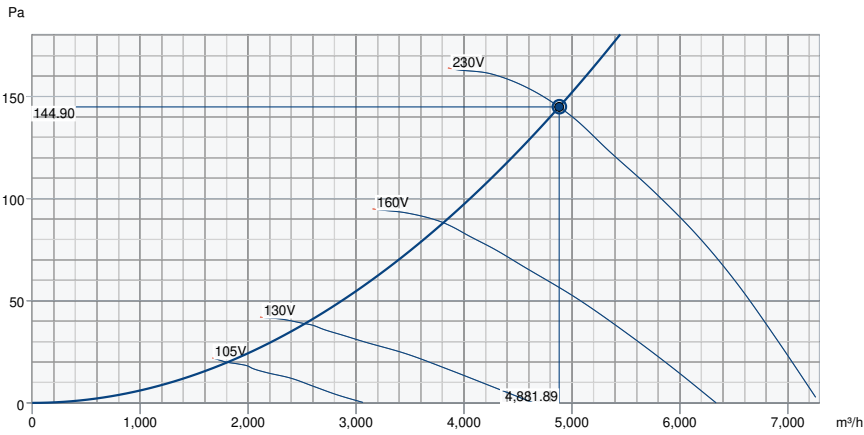
Data according to ErP		
ErP ready	ErP 2018	
Measurement category	A	
Efficiency grade	41.8	η <sub>actual</sub>
Efficiency, static	34	η <sub>statA</sub>
Target efficiency grade ErP2013	36	η <sub>target2013</sub>
Target efficiency grade ErP2015	40	η <sub>target2015</sub>

Dimensions and weights		
Weight	16.2	kg

Others		
Motor type	AC	

Performance

Performance curve



Hydraulic data

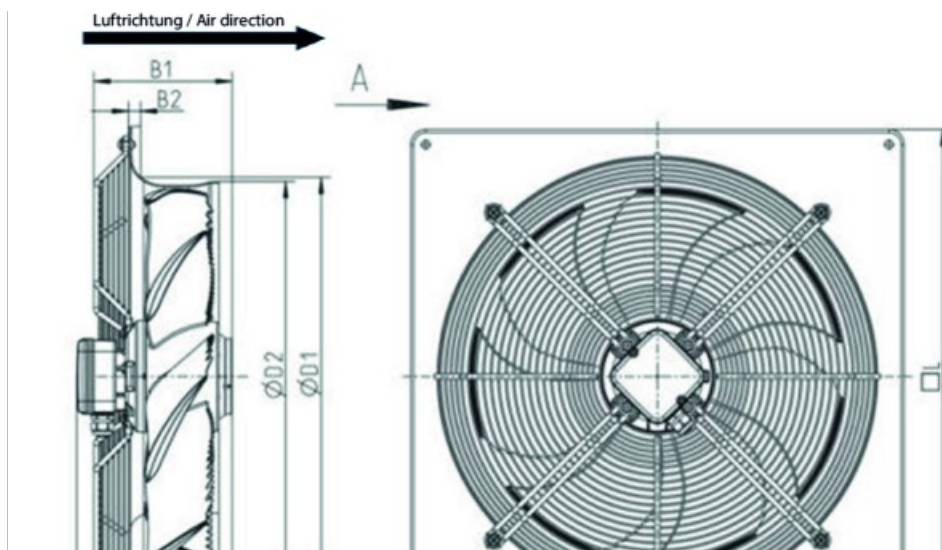
Required air flow	4,884 m³/h
Required static pressure	145 Pa
Working air flow	4,882 m³/h
Working static pressure	145 Pa
Air density	1.204 kg/m³
Power	590.8 W
Fan control - RPM	1,397 rpm
Current	2.83 A
SFP	0.436 kW/m³/s
Control voltage	230.0 V
Supply voltage	230 V

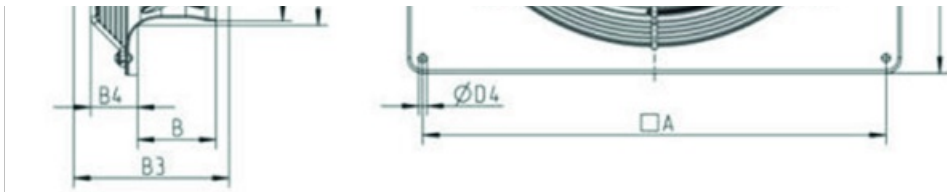
Sound power level		63	125	250	500	1k	2k	4k	8k	Total
Inlet	dB(A)	20	42	53	64	68	68	65	58	73
Outlet	dB(A)	20	42	53	65	68	68	65	60	73

Ecodesign

Ecodesign 327	
Manufacturer	Systemair GmbH
Type	AW 450E4
Year of manufacture	See name plate of the fan
Air flow $q_v$	7,300 m <sup>3</sup> /h
Efficiency category	static
Efficiency grade N	41.8
Efficiency grade target N	40
Speed (rpm) n	1,398 rpm
Pressure increase total psf	140 Pa
Power consumption $P_{ed}$	590 W
Overall efficiency	34 %
Variable speed drive	No
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.

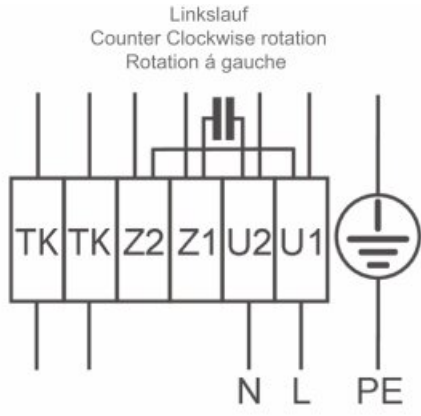
Dimension





	□A	B	B1	B2	B3	B4	ØD1	ØD2	ØD4	□L
AW 450	535	96	190	14	226	47	480	463	11	575

## Wiring



## Accessories

- Motor protect. switch S-ET 10 (161199)
- REU 5 Speed control (5006)
- RTRE 5 Speed control (5010)
- VK-50 Louvre shutter (87694)
- REE 4 Speed control (5317)
- REV-5POL/05-7,5kW R/Y (33979)
- SG AW-D BGr 045/042, RAL 9005 (30602)

## Documents

- L-BAL-001-SYSTEMAIR.PDF
- EU Declaration of Conformity\_002
- installation variations\_1\_AR\_AW.pdf