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**.

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	50	Hz
Phases	3~	
Motor circuit connection	D; Y	
Input power	2,700	W
Input power kW	2.7	kW
Input current	5.4	A
Impeller speed	820	rpm
Air flow	max 36,468	m^3/h
Air flow at max. efficiency	22,250	m^3/h
Specific ratio	1,000000	
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	

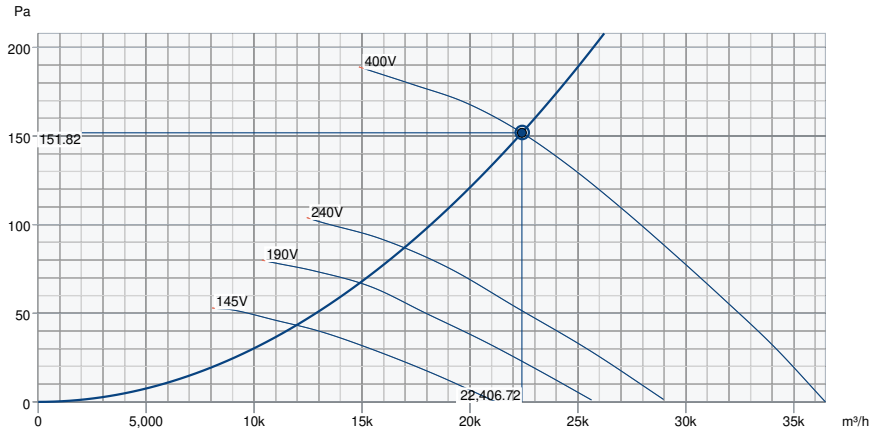
Data according to ErP		
ErP ready	ErP 2018	
Measurement category	A	
Efficiency grade	40.5	ηactual
Efficiency, static	36.8	ηstatA
Target efficiency grade ErP2013	36	ηtarget2013
Target efficiency grade ErP2015	40	ηtarget2015

Dimensions and weights		
Weight	67	kg

Others		
Color name, casing	Black	
Motor type	AC	

Performance

Performance curve



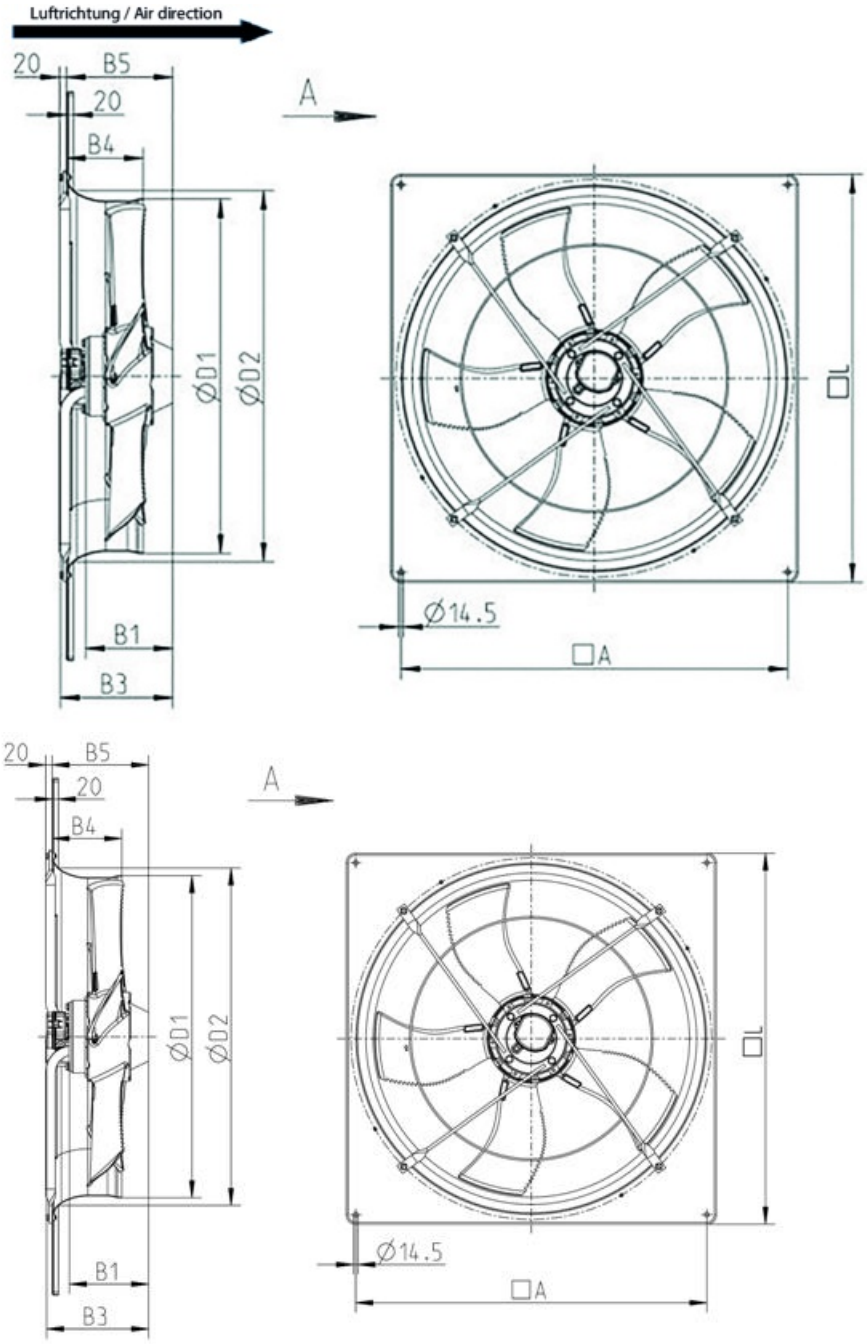
Hydraulic data	
Required air flow	22,420 m³/h
Required static pressure	152 Pa
Working air flow	22,407 m³/h
Working static pressure	152 Pa
Air density	1.204 kg/m³
Power	2,630.9 W
Fan control - RPM	830 rpm
Current	5.20 A
SFP	0.423 kW/m³/s
Control voltage	400.0 V
Supply voltage	400 V

Sound power level		63	125	250	500	1k	2k	4k	8k	Total
Inlet	dB(A)	58	63	71	72	74	72	68	64	79
Outlet	dB(A)	58	63	71	73	74	70	67	64	79

Ecodesign

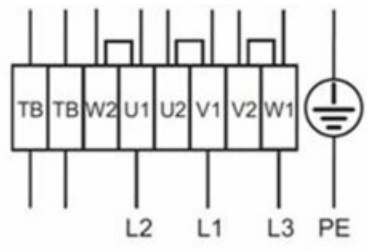
Ecodesign 327		
Manufacturer	Systemair GmbH	
Type	AW 1000DS	
Year of manufacture	See name plate of the fan	
Air flow qv	22,250	m^3/h
Efficiency category	static	
Efficiency grade N	40.5	
Efficiency grade target N	40	
Speed (rpm) n	830	rpm
Pressure increase total psf	153	Pa
Power consumption Ped	2,630	W
Overall efficiency	36.8	%
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 mainenance is provided in the operating instructions.	
Recycling / disposal	Information on recycling and disposal is provided in the operating instructions.	

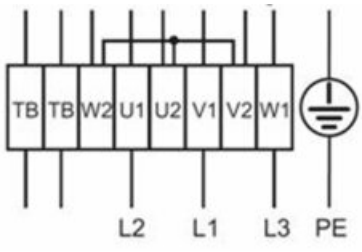
Dimension



	□A	B1	B3	B4	B5	ØD1	ØD2	□L
AW 1000DS	1110	250	323	220	305	1016	1067	1170

Wiring





High speed	Low Speed
Δ-Connection	Y-Connection

Accessories

- Frequency converter FRQ5S-10A (36234)
- Motor protect. switch S-DT 16E (161207)
- RTRD 7 speed control Systemair (5943)
- SG AW 1000 Guard 6 Pole (GFC) (3398)
- Frequency converter FRQS-10A (36232)
- REV-5POL/07-7,5kW B/G (281742)
- Motor protect. switch S-DT 16 (161206)
- REV-5POL/07-7,5kW R/Y (33980)
- RTRDU 7 Speed contr. Systemair (5947)
- Step switch S-DT2SKT, Y/D (2697)
- VK-100 Louvre shutter (87715)

Documents

- L-BAL-001-SYSTEMAIR.PDF
- EU Declaration of Conformity_002
- installation variations_1_AR_AW.pdf