

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	1,650	W
Input power kW	1.65	kW
Input current	3.7	A
Impeller speed	830	rpm
Air flow	max 22,255	m³/h
Air flow at max. efficiency	13,370	m³/h
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	IP54
Insulation class	F

Data according to ErP

ErP ready	ErP 2018
Measurement category	A
Efficiency grade	40.6 η_{actual}
Efficiency, static	35.7 η_{statA}
Target efficiency grade ErP2013	36 $\eta_{target2013}$
Target efficiency grade ErP2015	40 $\eta_{target2015}$

Dimensions and weights

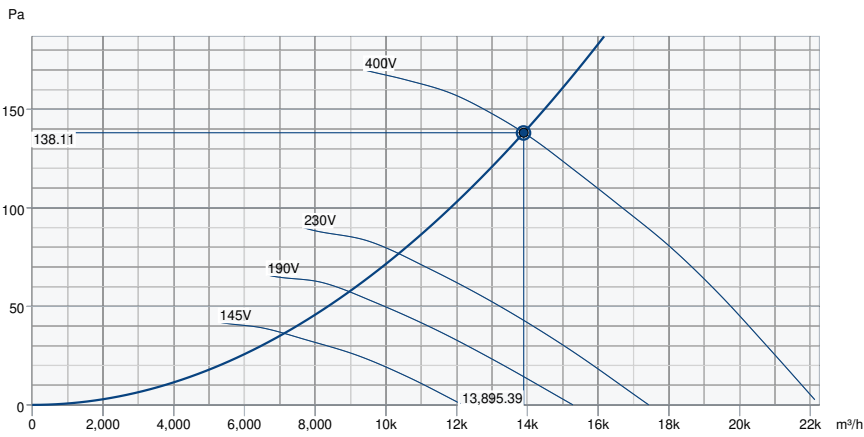
Weight	53	kg
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Others

Color name, casing	Black
Motor type	AC

Performance

Performance curve



Hydraulic data

Required air flow	13,890 m³/h
Required static pressure	138 Pa
Working air flow	13,895 m³/h
Working static pressure	138 Pa
Air density	1.204 kg/m³
Power	1,574.8 W
Fan control - RPM	842 rpm
Current	3.60 A
SFP	0.408 kW/m³/s
Control voltage	400.0 V
Supply voltage	400 V

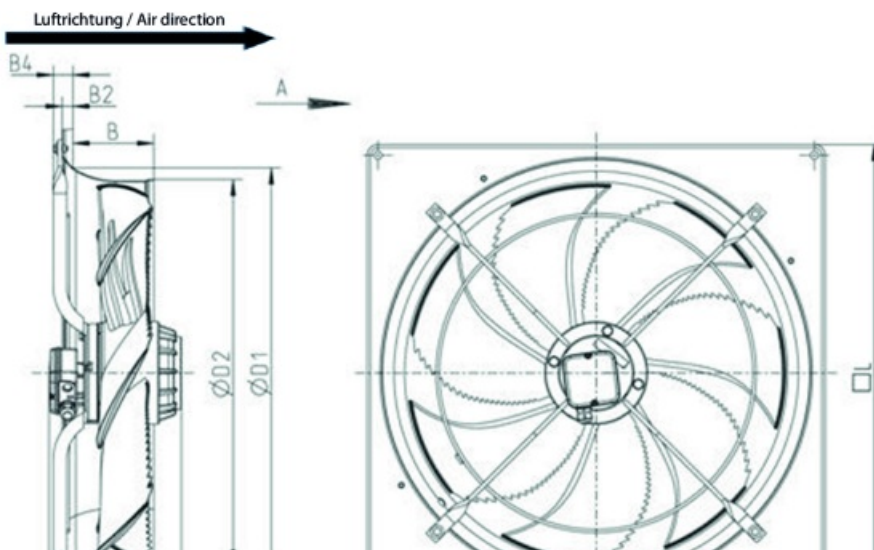
Sound power level		63	125	250	500	1k	2k	4k	8k	Total
Inlet	dB(A)	26	43	58	64	70	71	66	57	75
Outlet	dB(A)	28	46	61	65	70	69	65	57	74

Ecodesign

Ecodesign 327

Manufacturer	Systemair GmbH
Type	AW 800DS
Year of manufacture	See name plate of the fan
Air flow q_v	13,370 m ³ /h
Efficiency category	static
Efficiency grade N	40.6
Efficiency grade target N	40
Speed (rpm) n	860 rpm
Pressure increase total psf	154 Pa
Power consumption P_{ed}	1,650 W
Overall efficiency	35.7 %
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.

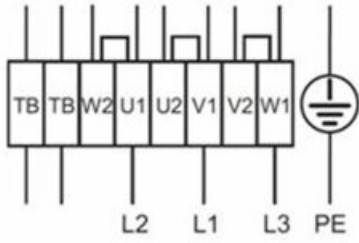
Dimension





	□A	B	B2	B3	B4	ØD1	ØD2	ØD4	□L
AW 800DS	910	193	17	319	67	869	804	14,5	970

Wiring

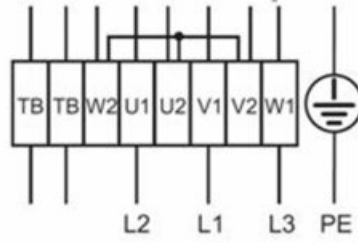


High speed

Low Speed

Δ-Connection

Y-Connection



Accessories

- Frequency converter FRQ5S-4A (36233)
- Motor protect. switch S-DT 16 (161206)
- REV-5POL/07-7,5kW R/Y (33980)
- RTRDU 4 Speed contr. Systemair (5946)
- Step switch S-DT2SKT, Y/D (2697)
- REV-5POL/07-7,5kW B/G (281742)
- Frequency converter FRQS-4A (36231)
- Motor protect. switch S-DT 16E (161207)
- RTRD 4 Speed cont. Systemair (5942)
- SG AW 800 Guard grill (GFC) (3397)
- VK-90 Louvre shutter (87713)

Documents

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