

AR Axial Fans

Low pressure axial duct fan

- Available with AC motors for 50 and 60Hz
- Installation in any position
- Noise and energy optimized impeller

[Find more details in our online catalogue](#)



Flexible

The AR 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 round casing is made of galvanized steel with powder coating in RAL9005.

The **complete** range is provided **with inlet protection grid**. An **outlet protection grid** is **available as accessory**.

Depending on type, the fans are equipped with an external **terminal box**, protection class **IP44** or **IP54**.

Impeller

The AR 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

AR fans are equipped with an **AC external rotor motor**. The motors are suitable for **50Hz** and **60Hz**.

Motor protection

The **AC** motors are equipped with prewired integral **thermal contact** with leads to be connected to a **motor protection unit**.

Control

The **AC motor** can be controlled by **5-step**, **stepless** speed regulator or **frequency inverter**.

Installation

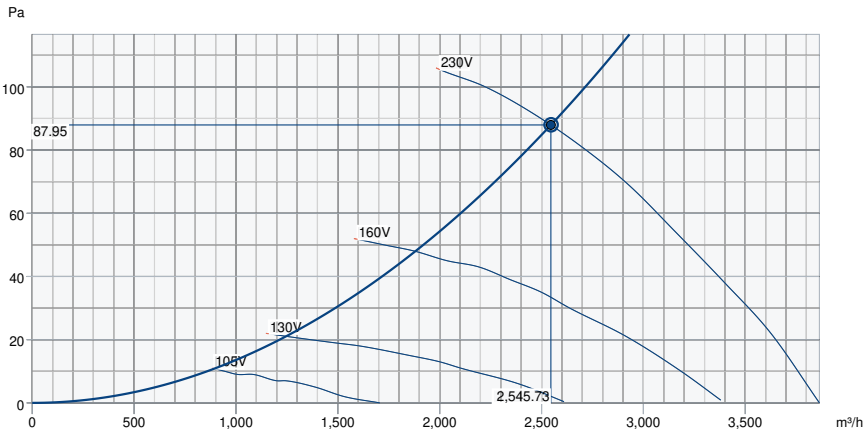
The AR fans can be installed in **any position** in the **duct** in **indoor** environments.

Technical parameters

Nominal data		
Voltage (nominal)	230	V
Frequency	50	Hz
Phases	1~	
Motor circuit connection	D	
Input power	240	W
Input power kW	0.24	kW
Input current	1.05	A
Impeller speed	1,340	rpm
Air flow	max 3,863	m³/h
Air flow at max. efficiency	2,414	m³/h
Specific ratio	1	
Capacitance of capacitor	5	µF
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	41.3	η _{actual}
Efficiency, static	31.1	η _{statA}
Target efficiency grade ErP2013	36	η _{target2013}
Target efficiency grade ErP2015	40	η _{target2015}
Dimensions and weights		
Duct dimension; Circular, inlet	400	mm
Duct dimension; Circular, outlet	400	mm
Weight	8.7	kg
Others		
Duct connection type	Circular	
Color name, casing	Black	
Motor type	AC	

Performance

Performance curve



Hydraulic data

Required air flow	2,547 m³/h
Required static pressure	88 Pa
Working air flow	2,546 m³/h
Working static pressure	88 Pa
Air density	1.204 kg/m³
Power	230.5 W
Fan control - RPM	1,367 rpm
Current	1.00 A
SFP	0.326 kW/m³/s
Control voltage	230.0 V
Supply voltage	230 V

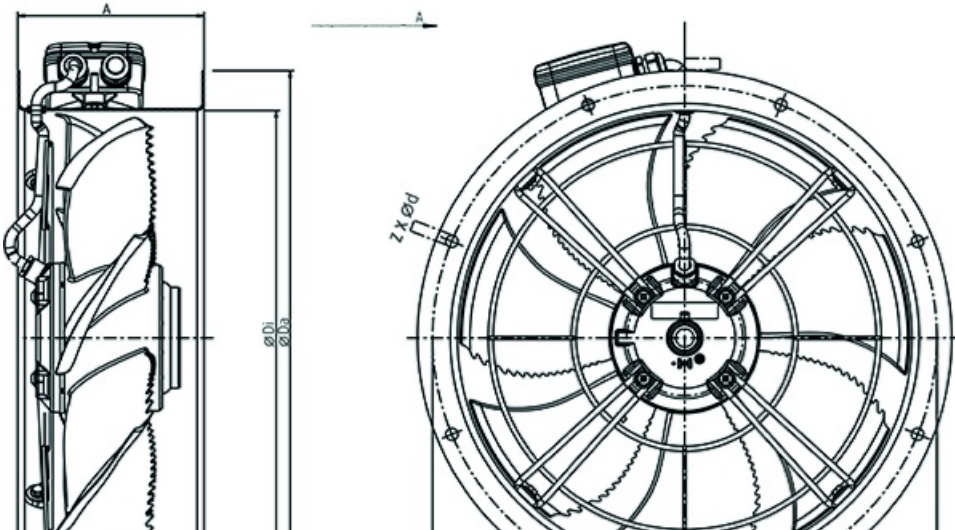
Sound power level		63	125	250	500	1k	2k	4k	8k	Total
Inlet	dB(A)	47	56	59	60	63	62	57	50	68
Outlet	dB(A)	45	56	60	61	65	63	57	48	69

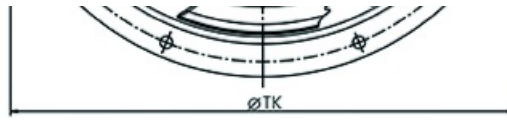
Ecodesign

Ecodesign 327

Manufacturer	Systemair GmbH
Type	AR 400E4
Year of manufacture	See name plate of the fan
Air flow q_v	2,414 m ³ /h
Efficiency category	static
Efficiency grade N	41.3
Efficiency grade target N	40
Speed (rpm) n	1,354 rpm
Pressure increase total psf	101 Pa
Power consumption P_{ed}	240 W
Overall efficiency	31.1 %
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.

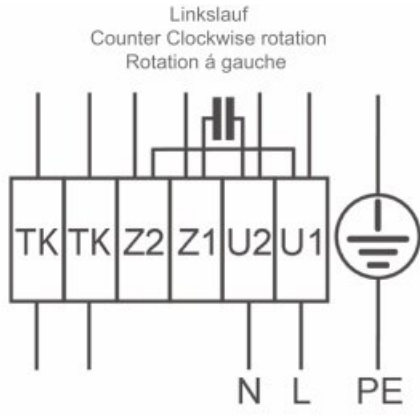
Dimension





	A	ØDi	ØDa	ØTK	z x Ød
AR 400 sileo	155	400	480	450	8 x Ø12

Wiring



Accessories

- EV-AR/AXC 400 flex.conn. 70°C (8354)
- GFL-AR/AXC 400 counter flange (8378)
- Motor protect. switch S-ET 10 (161199)
- REU 1.5 Speed control (5004)
- RTRE 1,5 Speed control (5008)
- Frequency converter FRQSE-6A (37419)
- SG-20 AXC400 protection grill (254254)
- Frequency converter FRQ5SE-6A (37421)
- MFA-AXC/AM 400 mounting foot (311285)
- REE 2 Speed control (5316)
- REV-5POL/05-7,5kW R/Y (33979)
- SG AXC/AM/AR 400 guard grill (310687)
- VK-40 Louvre shutter (87691)

Documents

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