

## Axial Fans

All Systemair axial fans at a glance



L62 RDA  
RDA Personenlift 1  
Zuluft 30'000m<sup>3</sup>/h

L63 RDA  
RDA Personenlift 2  
Zuluft 30'000m<sup>3</sup>/h



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Good climate is the basis for health, performance and well-being.

It is the provision of efficient ventilation and air conditioning systems that drives us forward, as well as the simplification of the work of the planner and installer. Based on the basic values of simplicity and reliability, we develop, produce and distribute high-quality ventilation and air conditioning systems.





## Disclose the secret of fresh air!

Since 1974 Systemair cares for the purity of an essential resource. Today Systemair is one of the leading ventilation companies worldwide. A success story, which started in Skinnskatteberg, Sweden, with the invention of the inline duct fan. This invention revolutionised the ventilation world.

Since then the company has continuously advanced and now offers a comprehensive range of products for all ventilation and air conditioning requirements. The experts of Systemair know the conditions and see the point whatever you need - the ventilation concept of a shopping centre,

domestic ventilation of a single family house or the ventilation of tunnels and metro stations. Over 5500 employees in more than 65 subsidiaries and 50 countries are available for the essential proximity to the customers.



This brochure presents the wide range of our medium pressure axial fans. For further information about our axial fan range and all the other Systemair products you can contact our experts in your local Systemair company or you can just visit our online catalogue on [www.systemair.com](http://www.systemair.com).

# All Systemair axial fans at a glance

Systemair offers a wide range of axial fans in various designs. For most applications in the ventilating or air conditioning sector as well as in a lot of industrial and commercial applications a Systemair fan can be selected. Some examples are: mining, tunnel ventilation, car park ventilation, applications in explosion hazardous areas and high temperature fans to extract heat and smoke in case of a fire.

Finding the right solution is important from many aspects: Trust in the product and producer, safety in the application, lowest possible energy consumption, good and matching functionality, the cost benefit ratio, a space saving design, the delivery just in time and many more. Our experts will be pleased to help you in all these questions and be at your disposal.

This brochure gives you an overview of our complete axial fan product range, so you can choose the right fan for your application. Performance curves and technical details for the required fan duties are available from our selection software, which is available in an online version on our website [www.systemair.com](http://www.systemair.com).

## Systemair is working in accordance with the following standards:

### Quality

ISO 9001: Quality management system, monitored by TÜV Süd. Certificate on [www.systemair.com](http://www.systemair.com).

ISO 14001: Environmental management system, monitored by TÜV Süd. Certificate on [www.systemair.com](http://www.systemair.com)

DIN 24166: Technical terms of delivery for fans.

### CE marking

The CE marking is a mandatory conformity mark in the European Economic Area. By affixing the CE marking, the manufacturer asserts that the item meets all the essential requirements of the relevant European Directive(s).

### Testing:

ISO 5801: "Industrial fans, performance testing..."

DIN 24163: "Fans, performance testing..."

AMCA 210-07: "Laboratory methods of testing fans for aerodynamic performance rating"

EN 12101-3: "Smoke and heat control systems - powered smoke and heat exhaust..."

ISO 13350: Jet fans

### EN certificates on [www.systemair.com](http://www.systemair.com)

- **As per EC Machinery Directive 98/37/EEC Annex IIA, fans for ventilation... the following harmonized standards are used:**

- » EN 60 204-1: "Safety of machinery - electrical equipment, general requirements"
- » EN 292-1: "Safety of machinery, design" EN ISO 12100
- » EN294: "Safety of machinery, safety distances" EN ISO 13857
- » EN 60 034-1: "Rotating electric machinery, ratings and performance"

- **As per EC Low Voltage Directive 73/23/EEC and 93/68/EEC the following harmonized standards are used:**

- » EN 60 204-1: "Safety of machinery - electrical equipment, general requirements"
- » EN 60 034-5: "Rotating electric machinery, protection classification"

- **As per EMC-directive 89/336/EEC and EMC-directive 93/68/EEC the following harmonized standards are used:**

- » EN 61000-6-1 and 6-2: Electromagnetic compatibility



## Available fan ranges

Fan range	Application	Impeller diameter (mm)	-20 °C to +55 °C ∞	200 °C ∞	250 °C/ 120 min.	300 °C/ 120 min.	400 °C/ 120 min.	Car Park Jet Fans	Tunnel Jet Fans	Explosive atmosphere
AXC	supply/exhaust	560- 2,240	•							
AXCP	supply/exhaust	315 - 500	•							
AXCPV	supply/exhaust	315 - 500	•							
AXC (B)	exhaust	315 - 1,600	•			•				
AXC (F)	exhaust	315 - 1,600	•				•			
AXCBF	exhaust	250 - 800	•	•						
AXR	supply/exhaust	315 - 2,240	•							
AXR (K)	supply/exhaust	1,500 - 2,240	•		•					
AXR (B)	supply/exhaust	315 - 1,600	•			•				
AXR (F)	supply/exhaust	315 - 1,600	•				•			
AJ8	impulse ventilation	315 - 400	•					•		
AJR-TR	impulse ventilation reversible	315 - 400	•					•		
AJ8 (B)	impulse ventilation	315 - 400	•			•		•		
AJR (B)-TR	impulse ventilation reversible	315 - 400	•			•		•		
AJR (F)-TR	impulse ventilation reversible	315 - 400	•				•	•		
AXC-EX*	supply/exhaust	315 - 1,600								•
AXCBF-EX*	exhaust	250 - 800								•
AJ	impulse ventilation reversible	500 - 1,600	•						•	
AJ (K)	impulse ventilation reversible	500 - 1,600	•		•				•	
AJ (B)	impulse ventilation reversible	500 - 1,600	•			•			•	
AJ (F)	impulse ventilation reversible	500 - 1,600	•				•		•	
...-G	two in series	315 - 2,000	•		•	•	•			
...-Box	sound insulated	315 - 1,000	•		•	•	•			

\* -20 °C to +40 °C



## Go quickly to the right axial fan

You can use our **selection program** to choose the perfect fans, compact air handling units and diffusers for your application quickly and with a precise operating point.

You can find an overview of all our products with the necessary technical data in our **online catalogue**. To complete your ventilation package, in the catalogue you will also find our comprehensive range of accessories to complement each product.

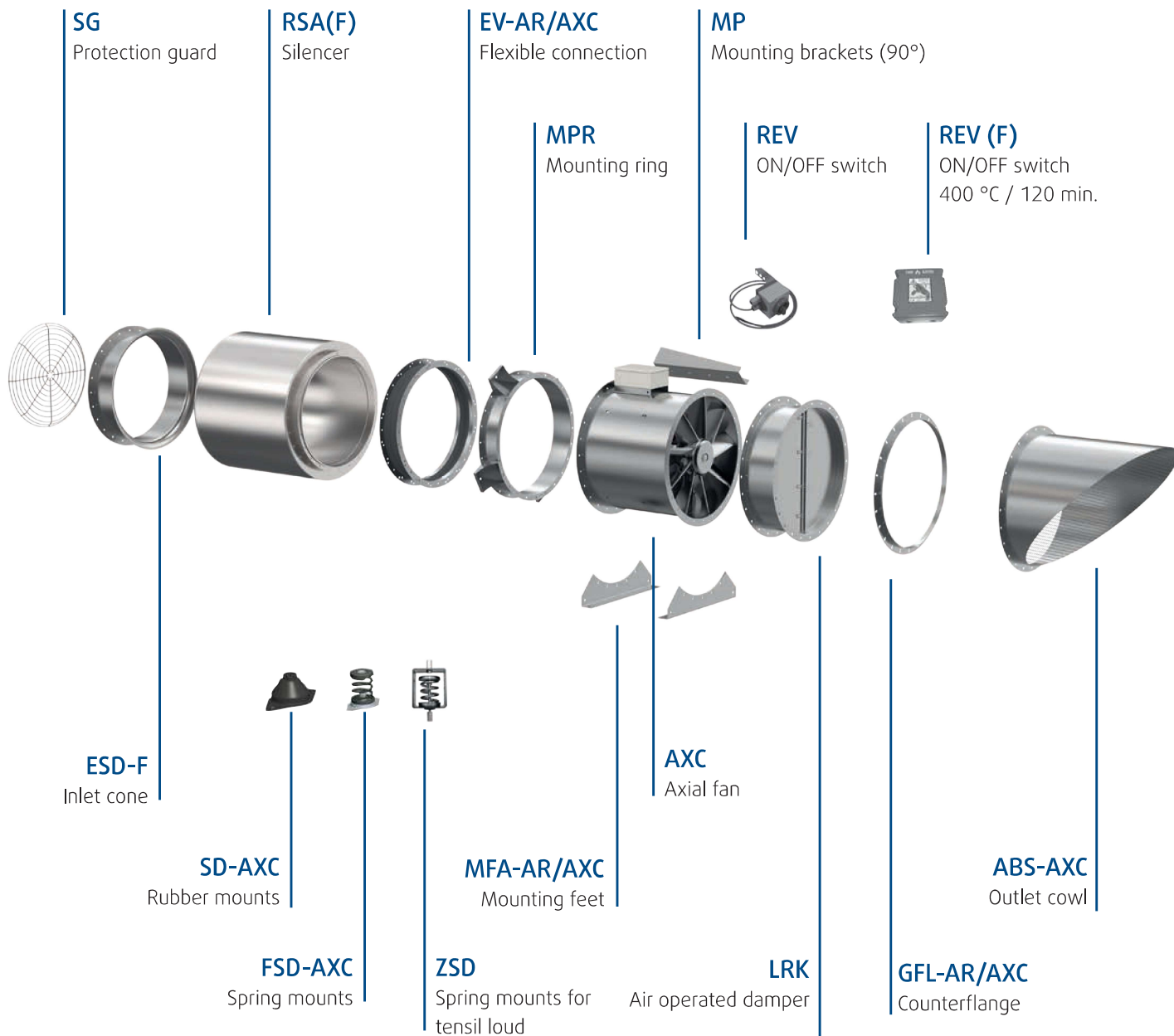
You can find this and much more useful and interesting information on **[www.systemair.com](http://www.systemair.com)**.

Take a look for yourself and discover the world of ventilation and air conditioning!



# System solution for axial fans of Systemair

Matched perfectly to your requirements



# Technical description

## Fan sizes and duties

Systemair axial fans are offered in sizes from 315 mm up to 2,240 mm diameter. Air volumes of up to 500,000 m<sup>3</sup>/h and static pressure of up to 2,800 Pa can be achieved. Higher pressures can be offered with two fans installed in series (AXC-G models on request). Fan performance in accordance with ISO 5801, part 1, category D.

## Casing

The casing and motor fixation is manufactured from galvanized steel. The terminal box is fitted on the outside of the casing.

## Impellers

The impellers (hub and blades) are manufactured from highly resistant aluminium alloy. The blades have an aerodynamic profile to guarantee high efficiencies and a low noise level.

The hub design allows adjustment of the blade angle during assembly of the fan in the factory, in order to achieve the optimum working point. This further increases the possible fan duties per diameter. In the performance curves  $P_{2max}$  is indicated, the maximum absorbed power of the impeller, related to the relevant blade angle setting.

## Motors

Systemair uses 400 V/50 Hz three phase motors in accordance with IEC standard 34-1. The motors are suitable for medium temperatures from -20 °C up to +55 °C and are equipped with cold conductors for motor protection. Protection class IP55, insulation class F. Other medium temperatures, protection classes or isolation classes are available on request. The standard motor range includes single and two speed motors.

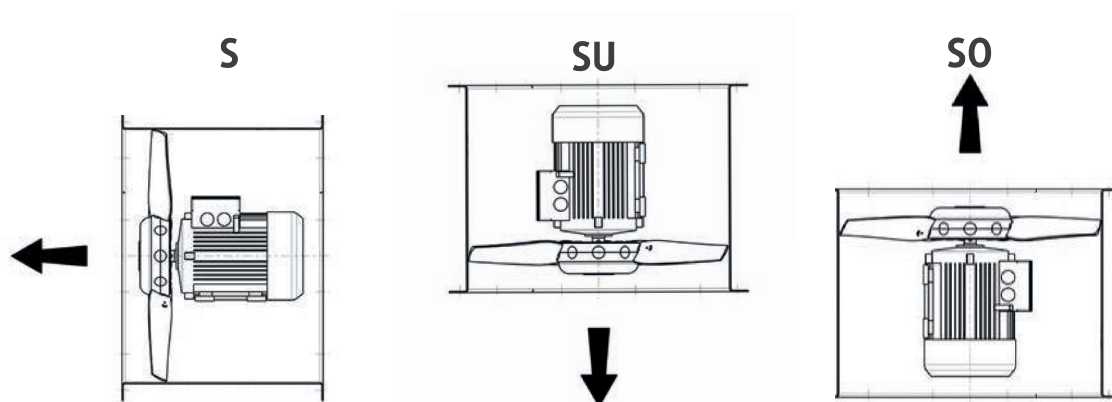
## Mounting position and airflow direction

Systemair axial fans AXC can be installed in different mounting positions. Should there be no different information in your order, the fans will be supplied in airflow direction "S", see pictures below. You will find arrows indicating the direction of rotation and airflow direction at the outside of the casing. For bigger motor powers (guideline: from IEC 160, 11 [kW]) it is important to inform us with your order in case the fans are to be installed in a different airflow direction than "S", as the motor bearings then are subject to a higher stress which we have to take into account.

## Accessories

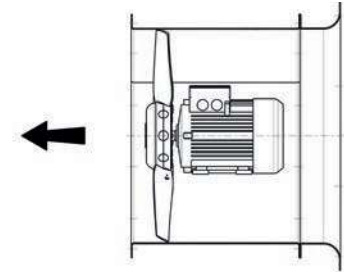
Systemair offers a wide range of accessories, such as:

- protection guards
- mounting feet (horizontal installation) or mounting brackets (vertical installation)
- counter flanges
- flexible connections
- inlet cones
- automatic shutters
- anti vibration mounts
- isolators for single or two-speed motors
- silencers (with and without core)

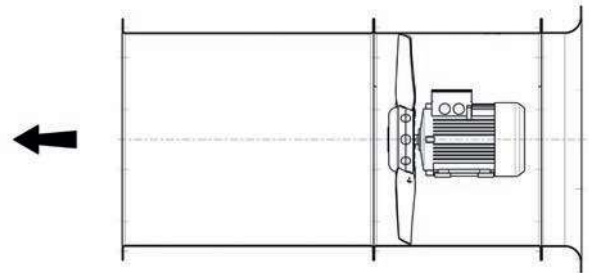


# Installation types

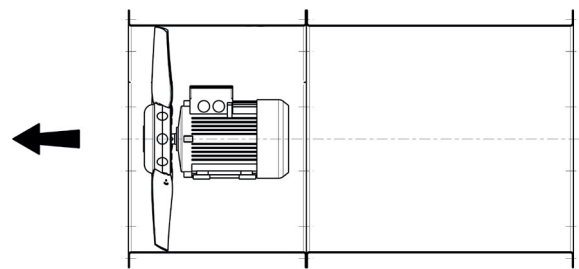
**A** free inlet  
free outlet



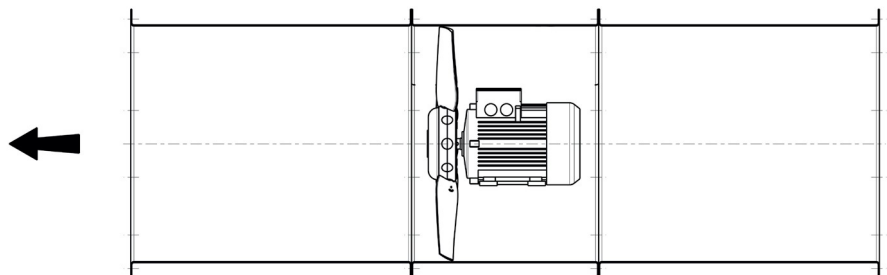
**B** free inlet  
ducted outlet side



**C** ducted inlet side  
free outlet



**D** ducted inlet side  
ducted outlet side



Installation types according to ISO 5801

# AXC / AXCP / AXR

## Axial fans



- AXC with aerofoil impeller, adjustable pitch angle for maximum efficiency
- Hub and blades are manufactured from highly resistant aluminium alloy
- Terminal box in IP65 mounted at the outside of the casing for easy wiring (AXC-E without terminal box)
- Suitable for operating temperatures between -20 °C and +55 °C
- Inspection hole to verify correct direction of rotation
- 60 Hz range available

The Systemair AXC, AXCP and AXR range of long cased medium pressure axial fans is available in sizes from 315 up to 2,240 mm nominal diameter. The adjustable pitch angle setting offers a wide performance and maximum flexibility to match precisely individual airflow requirements. The AXC, AXCP and AXR axial fans have been performance tested in accordance with DIN ISO 5801, DIN 24163 and AMCA 210-07 on the Systemair fan test rig.

### High efficiency impellers

The AXC die cast aerofoil aluminium impellers can be offered with full or fractional solidities, maximum efficiencies can be obtained. Different impeller/hub configurations allow high operating pressures. AXR impellers are truly reversible.

### Sturdy casing

Casings are heavy gauge, galvanized, with spun flanges for high rigidity (AXC-E and AXC-EK is made of pre-galvanised sheet steel). Long cased execution as standard stock range. Also available with short casing and with an acoustically insulated box.

### Motors

The built-in motors are equipped with PTC thermistors for optimum motor protection. Single or two speed motors. Speed controllable by frequency converter.

### Multi stage fans

For higher pressure drops two stage fans are offered. Two fans in series increase the available static operational pressure.

### Quality

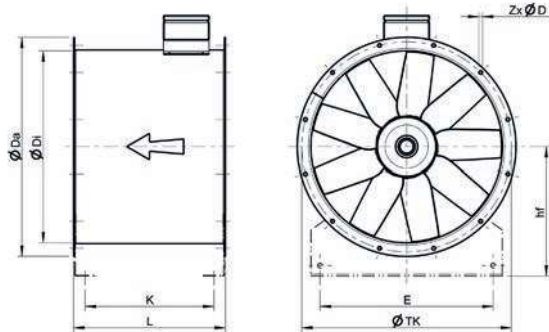
Systemair is certified according to ISO 9001 and ISO 14001. The Systemair quality system is regularly monitored by TÜV Süd.



### Warranty

The Systemair general terms and conditions apply.

## Dimensions

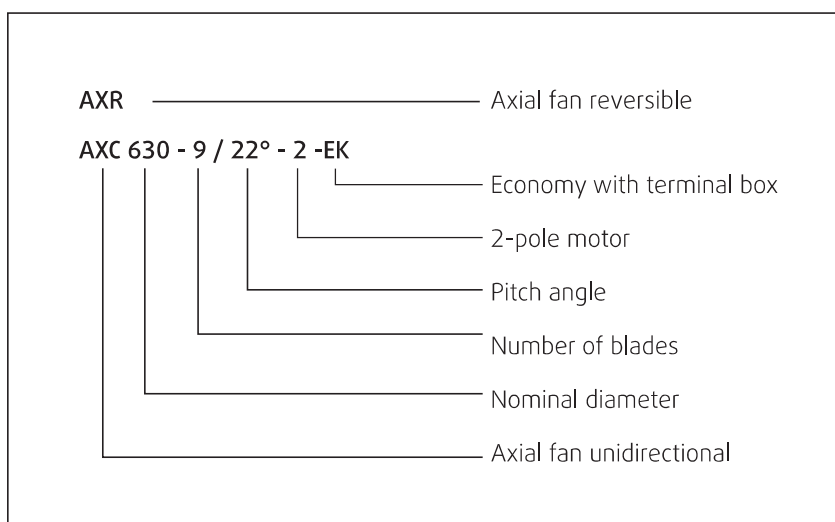


AXC	$\varnothing Di$	$\varnothing Da$	$\varnothing TK$	$Z \times \varnothing D$	L	hf	E	K
AXCP 315	315	395	355	8x10	425	235	265	360
AXCP 355	355	435	395	8x10	425	250	305	360
AXCP 400	400	480	450	8x12	450	280	350	385
AXCP 450	450	530	500	8x12	500	315	400	435
AXCP 500	500	590	560	12x12	540	335	440	464
AXCP 560	560	650	620	12x12	500/750*	375	500	424/674*
AXCP 630	630	720	690	12x12	500/750*	425	570	424/674*
AXC 710	710	800	770	16x12	500/700/800*	450	650	424/624/722*
AXC 800	800	890	860	16x12	500/700*	530	730	414/614*
AXC 900	900	1005	970	16x15	640/850*	560	830	552/762*
AXC 1000	1000	1105	1070	16x15	640/850*	670	930	552/762*
AXC 1200	1120	1260	1190	20x15	700/1000*	710	1030	612/910*
AXC 1250	1250	1390	1320	20x15	850/1050*	800	1180	740/938*

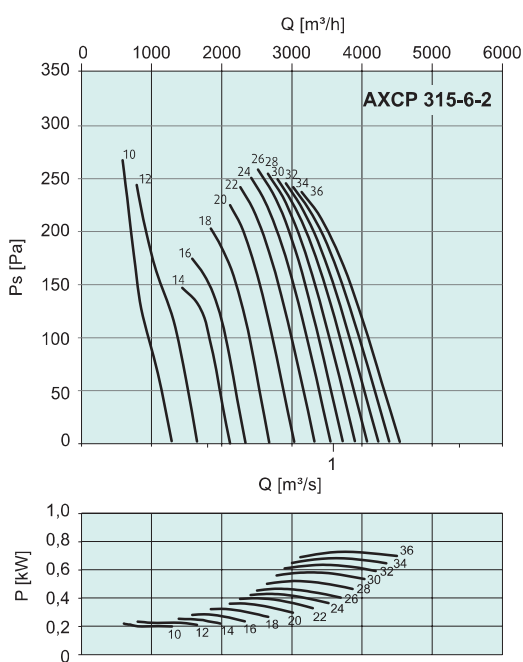
Dimensions in mm.

\* Dimensions L + K depend on motor frame size

## Ordering code



## Quick selection

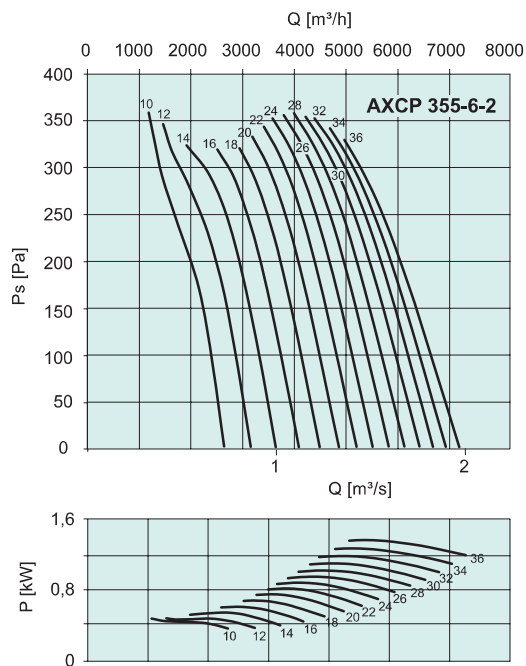


Article no.

Size \*

CAXP31501IE3

AXCP 315-6-2 (0,75kW) IE3



Article no.

Size \*

CAXP35501IE3

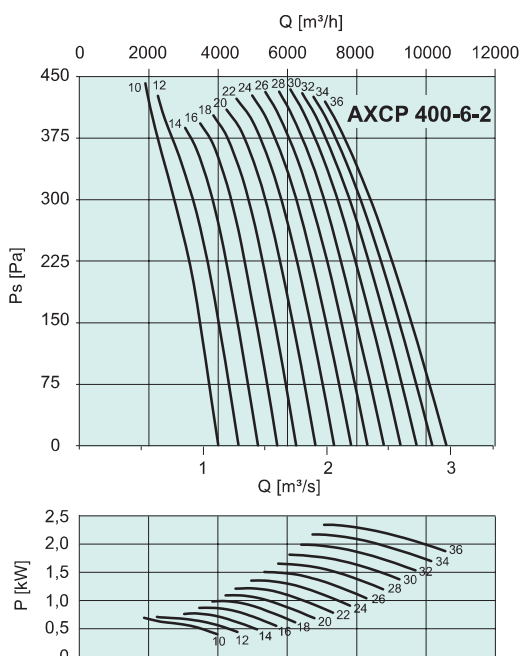
AXCP 355-6-2 (0,75kW) IE3

CAXP35502IE3

AXCP 355-6-2 (1,1kW) IE3

CAXP35503IE3

AXCP 355-6-2 (1,5kW) IE3



Article no.

Size \*

CAXP40001IE3

AXCP 400-6-2 (0,75kW) IE3

CAXP40002IE3

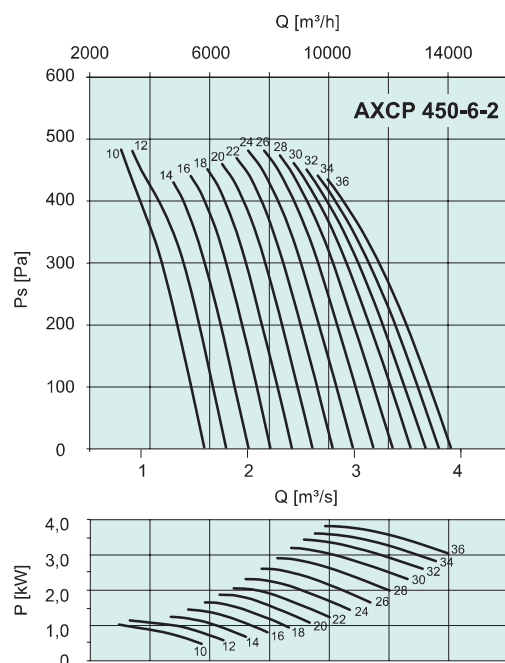
AXCP 400-6-2 (1,1kW) IE3

CAXP40003IE3

AXCP 400-6-2 (1,5kW) IE3

CAXP40004IE3

AXCP 400-6-2 (2,2kW) IE3



Article no.

Size \*

CAXP45001IE3

AXCP 450-6-2 (0,75kW) IE3

CAXP45002IE3

AXCP 450-6-2 (1,1kW) IE3

CAXP45003IE3

AXCP 450-6-2 (1,5kW) IE3

CAXP45004IE3

AXCP 450-6-2 (2,2kW) IE3

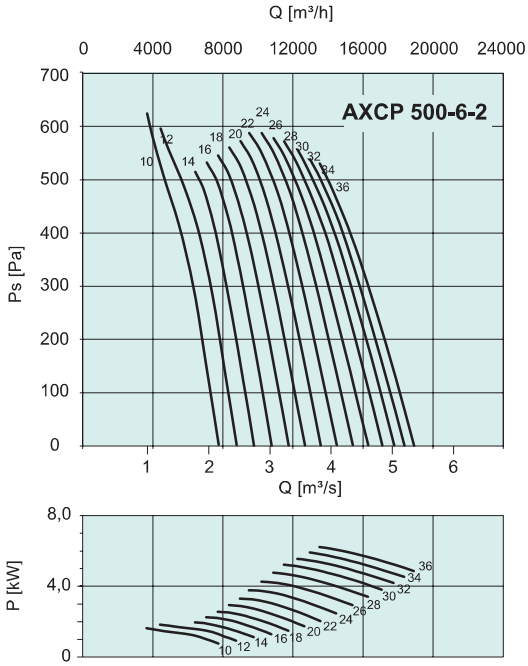
CAXP45005IE3

AXCP 450-6-2 (3,0kW) IE3

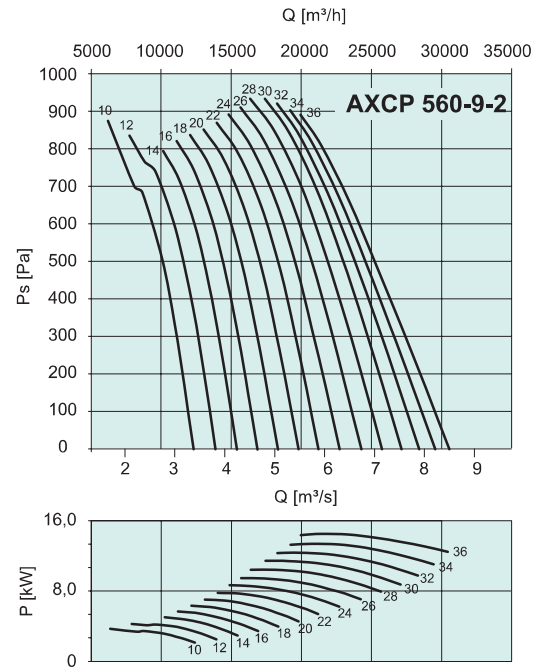
CAXP45006IE3

AXCP 450-6-2 (4,0kW) IE3

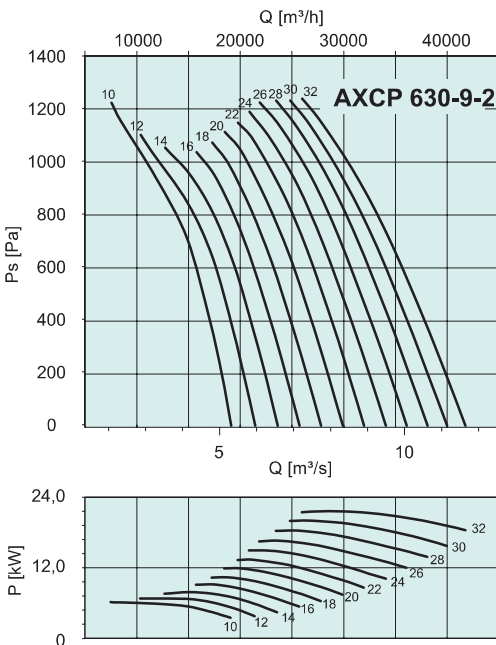
\* Further performance curves in the selection program.



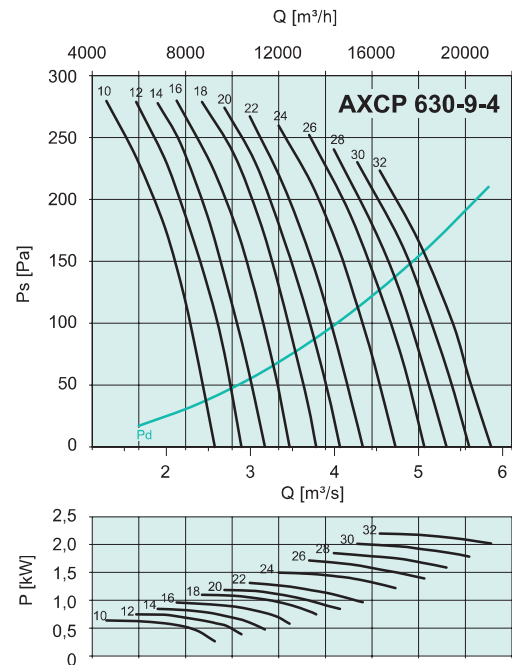
Article no.	Size *
CAXP50001IE3	AXCP 500-6-2 (1,1kW) IE3
CAXP50002IE3	AXCP 500-6-2 (1,5kW) IE3
CAXP50003IE3	AXCP 500-6-2 (2,2kW) IE3
CAXP50004IE3	AXCP 500-6-2 (3,0kW) IE3
CAXP50005IE3	AXCP 500-6-2 (4,0kW) IE3
CAXP50006IE3	AXCP 500-6-2 (5,5kW) IE3
CAXP50007IE3	AXCP 500-6-2 (7,5kW) IE3



Article no.	Size *
CAXP56001IE3	AXCP 560-9-2 (2,2kW) IE3
CAXP56002IE3	AXCP 560-9-2 (4,0kW) IE3
CAXP56003IE3	AXCP 560-9-2 (5,5kW) IE3
CAXP56004IE3	AXCP 560-9-2 (7,5kW) IE3
CAXP56005IE3	AXCP 560-9-2 (11,0kW) IE3
CAXP56006IE3	AXCP 560-9-2 (15,0kW) IE3

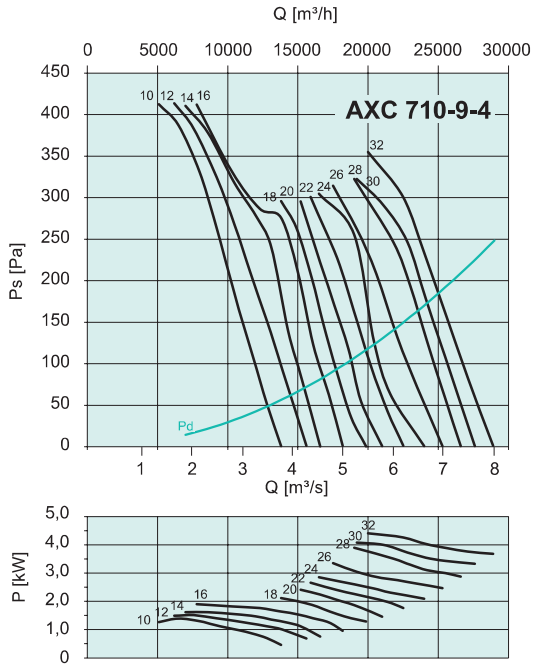


Article no.	Size *
CAXP63001IE3	AXCP 630-9-2 (2,2kW) IE3
CAXP63002IE3	AXCP 630-9-2 (3kW) IE3
CAXP63003IE3	AXCP 630-9-2 (4kW) IE3
CAXP63004IE3	AXCP 630-9-2 (5,5kW) IE3
CAXP63005IE3	AXCP 630-9-2 (7,5kW) IE3
CAXP63006IE3	AXCP 630-9-2 (11kW) IE3
CAXP63007IE3	AXCP 630-9-2 (15kW) IE3
CAXP63008IE3	AXCP 630-9-2 (18,5kW) IE3

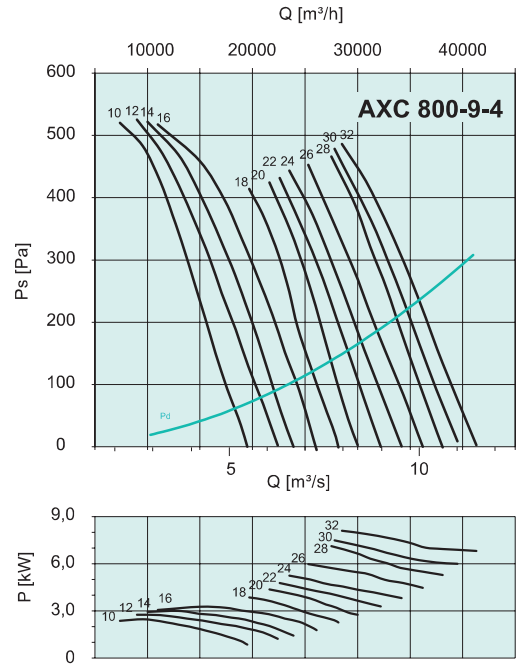


Article no.	Size *
CAX63029IE3	AXC 630-9-4 (2,2kW) IE3
CAX63030IE3	AXC 630-9-4 (3kW) IE3

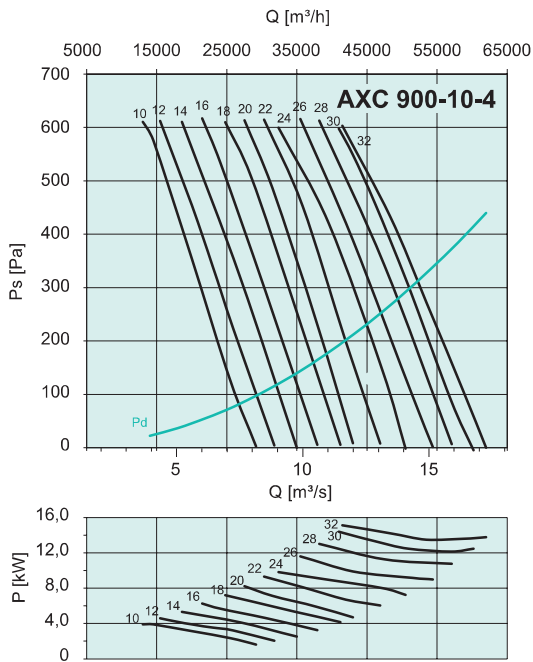
\* Further performance curves in the selection program.



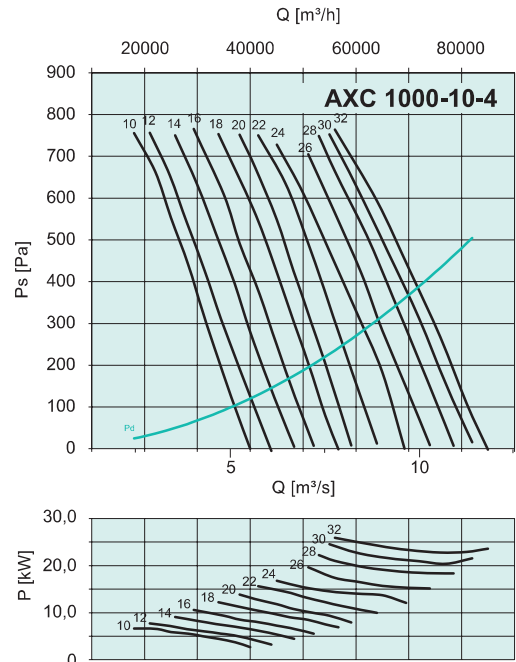
Article no.	Size *
CAX71009IE3	AXC 710-9-4 (2,2kW) IE3
CAX71010IE3	AXC 710-9-4 (3kW) IE3
CAX71011IE3	AXC 710-9-4 (4kW) IE3
CAX71012IE3	AXC 710-9-4 (5,5kW) IE3



Article no.	Size *
CAX80011IE3	AXC 800-9-4 (2,2kW) IE3
CAX80012IE3	AXC 800-9-4 (3kW) IE3
CAX80013IE3	AXC 800-9-4 (4kW) IE3
CAX80014IE3	AXC 800-9-4 (5,5kW) IE3
CAX80015IE3	AXC 800-9-4 (7,5kW) IE3



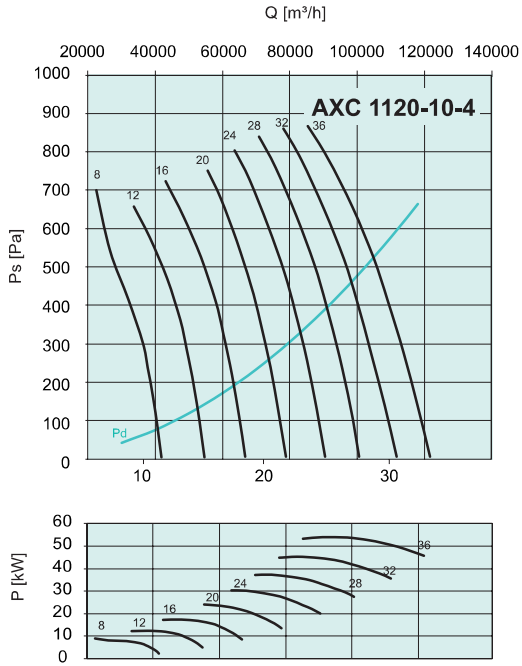
Article no.	Size *
CAX90008IE3	AXC 900-10-4 (2,2kW) IE3
CAX90009IE3	AXC 900-10-4 (3kW) IE3
CAX90010IE3	AXC 900-10-4 (4kW) IE3
CAX90011IE3	AXC 900-10-4 (5,5kW) IE3
CAX90012IE3	AXC 900-10-4 (7,5kW) IE3
CAX90013IE3	AXC 900-10-4 (11kW) IE3
CAX900014IE3	AXC 900-10-4 (15kW) IE3



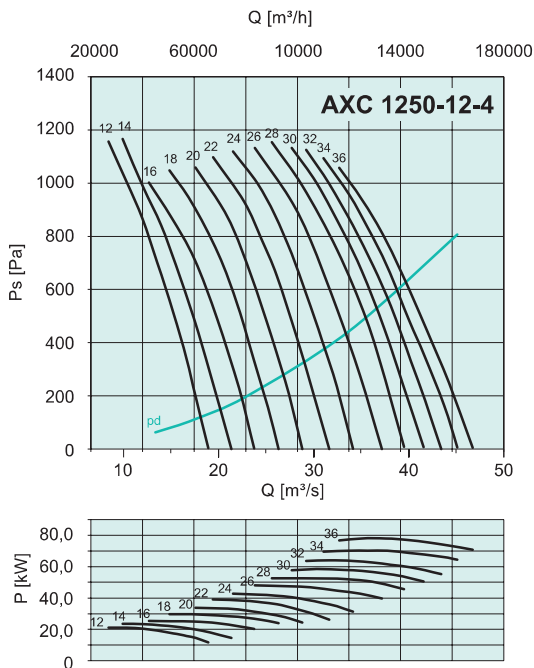
Article no.	Size *
CAX100007IE3	AXC 1000-10-4 (4kW) IE3
CAX100008IE3	AXC 1000-10-4 (5,5kW) IE3
CAX100009IE3	AXC 1000-10-4 (7,7kW) IE3
CAX100010IE3	AXC 1000-10-4 (11kW) IE3
CAX100011IE3	AXC 1000-10-4 (15kW) IE3
CAX100012IE3	AXC 1000-10-4 (18,5kW) IE3
CAX100013IE3	AXC 1000-10-4 (22kW) IE3
CAX100014IE3	AXC 1000-10-4 (30kW) IE3

\* Further performance curves in the selection program.





Article no.	Size *
CAX112006IE3	AXC 1120-10-4 (5,5kW) IE3
CAX112007IE3	AXC 1120-10-4 (7,5kW) IE3
CAX112008IE3	AXC 1120-10-4 (11kW) IE3
CAX112009IE3	AXC 1120-10-4 (15kW) IE3
CAX112010IE3	AXC 1120-10-4 (18,5kW) IE3



Article no.	Size *
CAX125007IE3	AXC 1250-12-4 (11kW) IE3
CAX125008IE3	AXC 1250-12-4 (15kW) IE3
CAX125009IE3	AXC 1250-12-4 (18,5kW) IE3
CAX125010IE3	AXC 1250-12-4 (22kW) IE3
CAX125011IE3	AXC 1250-12-4 (30kW) IE3
CAX125012IE3	AXC 1250-12-4 (37kW) IE3
CAX125013IE3	AXC 1250-12-4 (45kW) IE3
CAX125014IE3	AXC 1250-12-4 (55kW) IE3

\* Further performance curves in the selection program.