



OEM productguide



Agriculture
Hazardous ATEX
Electro-Mechanical Cooling
Food Processing
Custom Design Cooling
Refrigeration

airmovementworldwide

Nuaire - The leading edge in ventilation

The Nuaire Group is a British organization that has been designing, manufacturing and distributing innovative, quality driven products for the home and overseas market for over 40 years.

Nuaire fans are used in all types of applications from domestic households to large commercial buildings to numerous applications by original equipment manufacturers.

Our philosophy at Nuaire is to work closely with our customers in all aspects of the product and the process development, providing not only the best technical and commercial solution, but first class customer support and on time delivery performance.

Leading edge manufacturing technology ensures consistently high quality, along with in house laboratories which have been independently rated to be amongst the best in the world. The Nuaire laboratories are accredited to British (BS), International (ISO) and American (AMCA) standards. This enables us to offer the right solution to satisfy your cooling, heating and ventilation needs.

This product guide has been designed to provide you with an overview of our OEM product range. If you are unable to find the right solution within this guide, please contact our dedicated OEM support team on +44 (029) 20 858 595.



Equipment designed to meet your requirements.





- One of Europe's leading manufacturers of ventilation equipment.
- Dedicated OEM technical support team ensuring first class customer service
- Leading edge manufacturing ensuring cost effective fan solutions
- Best on time deliveries in the industry
- Competitive prices
- Continuing to offer innovative products and services

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axusrange

Range

- The widest range of axials available.
- Air volumes from 0.1m³/s to 92m³/s
- Comprehensive range of axial fan diameters: 250mm to 2000mm
- All fans are tested to either BS848 (part.1 1997), BS848 (part.2 2004), ISO5801 (Part.1. 1997) with acoustic performance to AMCA300

Cases

Axial fan cases are available in both long and short profiles as standard. To complement these standard case options, we also offer matching bellmouth, inlet cone and flange sections.

The material options available are:-

- Pre-galvanised sheet steel
- Heavy gauge mild steel hot dip galvanised after manufacture
- Stainless Steel, 304 & 316L

Impellers

Impellers are aerofoil in section and variable pitch. The extensive range of blade combinations enables us to offer the right option suited to the application, ensuring low noise, high efficiency and performance.

The Hubs are manufactured from die cast aluminium alloy as standard. The blades are aerofoil or sickle in section and are available in the following materials:-

- Aluminium -70 to 150°C
- PAG - Glass Reinforced Polyamide -60 to 110°C
- PPG - Glass Reinforced Polypropylene -10 to 80°C

Motors

Standard motors incorporated are B3 foot mounted, which offers complete inter-changeability worldwide.

Type:

TENV non ventilated, Class F, IP55

Temperature Range:

-50°C to 50°C

Thermal Overload protection:

PTO Thermostat fitted as standard

Standard Voltages/Frequencies:

230/400/3Ph (50Hz) 400/690/3Ph (50Hz) 460V (60Hz)

Speed Control:

Auto-Transformer & Frequency Inverter
(Please refer to Nuaire)

Finish:

2 Pack Epoxy as standard

Other Available Options:-

- Low Ambient Temperatures down to -70°C
- ATEX compliant
- 60Hz variations
- 2 Speed options (Dahlander & Dual Wound)
- PTC Thermistors
- Anti-Condensation Heaters
- High Ambient 70°C
- Project Specific

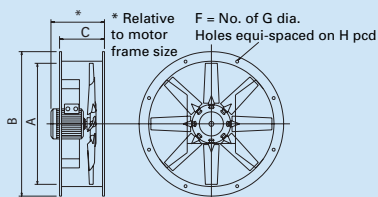
NB. Above are just some of the options available for others, please refer to Nuaire.

Optional Ancillaries

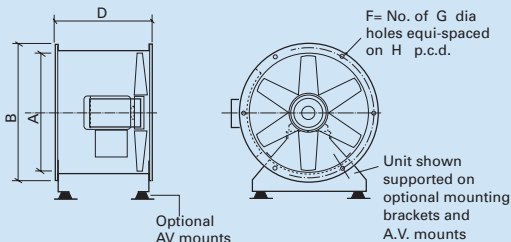
- Bellmouth Inlet Sections
- Inlet Cones
- Matching Flanges (with & without Swage)
- Impeller & Motor side guards (Flat & Basket depending on application)
- Case Mounted Terminal Box (Pre-wired)
- Polyester Powder Paint Finish
- Back Draught Dampers
- Airflow straighteners
- Flexible Connections
- Anti-Vibration Mounts
- Auto-transformer or Frequency inverters
- Silencers (short or long/podded or non podded)



Short Case

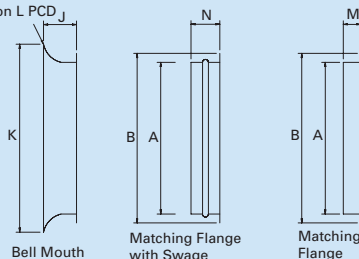


Long Case



Code	Frame	Short		Long		F	G	H	J	K	L	M	N
		A	B	C	D								
25	63-71	250	335	235	350	4	12	300	N/A	N/A	N/A	50	127
31	63-80	315	400	235	350	8	12	355	N/A	N/A	N/A	50	127
35	63-90	350	430	235	350	8	12	395	N/A	N/A	N/A	50	127
40	63-100	400	490	254	440	8	12	450	N/A	N/A	N/A	50	127
45	63-112	450	540	254	440	8	12	500	N/A	N/A	N/A	50	127
50	63-112	500	608	254	440	12	12	560	N/A	N/A	N/A	50	127
50	132	500	608	314	600	12	12	560	N/A	N/A	N/A	50	127
56	71-112	560	670	254	440	12	12	620	N/A	N/A	N/A	50	127
56	132	560	670	314	600	12	12	620	N/A	N/A	N/A	50	127
63	71-112	630	740	254	440	12	12	690	118	796	771	50	127
63	132	630	740	314	600	12	12	690	118	796	771	50	127
63	160-180	630	740	314	800	12	12	690	118	796	771	50	127
71	80-112	710	814	254	440	16	12	770	118	876	851	50	127
71	132	710	814	314	700	16	15	770	118	876	851	50	127
80	80-112	800	910	254	440	16	15	860	118	966	941	50	127
80	132-160	800	910	440	700	16	15	860	118	966	941	50	127
90	90-180	900	1016	440	740	16	15	970	123	1075	1051	50	127
100	90-180	1000	1128	465	740	16	15	1070	123	1176	1151	50	127
100	200	1000	1128	550	840	16	15	1070	123	1176	1151	50	127
100	225	1000	1128	665	1010	16	15	1070	123	1176	1151	50	127
112	100-160	1120	1240	465	730	20	15	1190	123	1296	1271	50	127
112	180-200	1120	1240	550	865	20	15	1190	123	1296	1271	50	127
112	225-250	1120	1240	665	1010	20	15	1190	123	1296	1271	50	127
125	100-180	1250	1365	550	865	20	15	1320	123	1426	1401	50	127
125	200-280	1250	1365	665	1010	20	15	1320	123	1426	1401	50	127
140	160-280	1400	1530	665	1010	20	15	1470	163	1666	1636	120	127
150	160-280	1500	1610	665	1010	24	15	1560	163	1766	1736	120	127
160	180-315	1600	1710	665	1010	24	18	1680	163	1866	1836	120	127
180	180-315	1800	1930	800	1010	24	18	1830	163	2066	2036	120	127
200	180-315	2000	2130	800	1010	24	18	2080	163	2266	2236	120	127

8 Holes Ø 12 on L PCD



applications

Cooling/Refrigeration

Nuaire has extensive experience in providing the right fan solution for applications such as air cooled condensers, chillers, & blast freezers.

- **- 50 Deg.C minimum operating temperature as standard**
- **Hot dip galvanised steel case construction**
- **PTO thermostat thermal overload fitted as standard**



Agriculture

Dryers for Grain, Barely, Wheat, Oil Seeds, Cereals and Coffee. Coolers for potatoes and Ventilation in Horticulture are just some of the Agricultural applications where Nuaire has the right fan solution.

- **Special bellmouth case design**
- **Easy maintenance**
- **Robust corrosion resistant construction**



Food Process

A large range of impeller designs and motors are available, providing a cost effective, efficient, low noise fan assembly for your equipment. Fan cases are not only available in hot dip galvanised steel as standard, but 304 & 316 stainless steel.

- **Case material options in 304 & 316L stainless steel**
- **Special motor paint finish**
- **Impeller material options in aluminium, PAG & PPG**



ATEX

Nuaire has designed a complete range of axial flow fans suitable for use in potentially explosive atmospheres, these units are manufactured and supplied in accordance with ATEX Directive 94/9/EC.

- **ATEX Compliant Range**
- **EEXDE, EEXD, EEXE, EEXN (Gases)**
- **Zone.21, Zone.22 (Dust)**
- **304/316 stainless steel case options**



Custom Design

We pride ourselves on working closely with the client at every stage in their development process. The latest manufacturing technology and accredited test facilities enables us to offer a flexible approach to the design and build of the right fan solution.

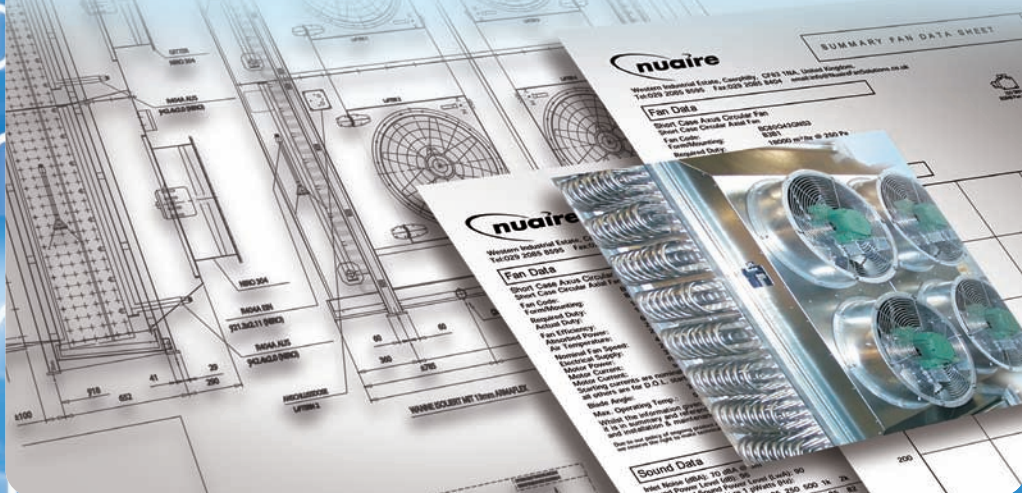
Our focus is not only on the fan solution, but on its interface with the customer's equipment and manufacturing process, resulting in a reduction in assembly costs in most cases.

- **Specific case designs**
- **Bespoke sheet metal fabrication**
- **Pre-wiring for interface with the original equipment**
- **A range of material options**
- **Client Specific testing**
- **Bespoke fan selection software**

Fan Selection Software

To support our extensive range we have designed a selection program with the needs of an OEM customer in mind with the aim of providing ease of selection, flexibility and comprehensive technical fan data.

For your selection program CD please contact Nuaire direct on Tel 02920 858595 or www.nuairegroup.com



smoke control

Smoke Control

Shopping Centres & Public Buildings: Safe Escape

The main benefits of installing Nuaire Smoke Control Systems are:

- Safe escape for occupants
- Safe entry for fire fighters
- Reduced smoke damage
- Reduced water damage

Nuaire fans provide a smoke 'clear layer' to allow building occupants to safely escape from a building during a fire situation.

Commercial & Industrial Buildings: Safe Escape & Protecting Goods

In addition these systems allow fire fighting services to safely enter the building, to locate the fire and maintaining a clear layer helps prevent 'fire damage' to stored goods or machinery.

Pressurisation of Escape Routes

BS5588 Part 4: specifies the use of pressurisation for the means of escape. The systems ensure that stairs and corridors in multi-storey buildings remain clear of smoke.

BS5588 Part 5: specifies the use of pressurisation for fire fighting systems. In addition to providing safe means of escape, these are designed to offer safe access to fire fighters.

Nuaire pressurisation run & standby fans are specially designed to meet the requirements of these standards.

Shopping Centres & Car Parks: Safe Escape

Thrust Vent offers efficient daily ventilation for CO removal, smoke clearance and smoke control.

The system provides active cooling of the smoke, creation of virtual smoke barriers, easy visual location of the fire for emergency services and quick, efficient extinguishing.



Axis Impulse

As from April 2005 it is mandatory for all emergency smoke ventilation equipment for use in the EU to be independently tested in an accredited test facility and certified by the appropriate notified body (BSI) to ensure its suitability for the purpose.

All such equipment must be independently tested to BS EN12101-3:2002 Smoke and heat control systems. Specification for powered smoke and heat exhaust ventilators.

Nuaire's Axis range of high temperature fans and ancillaries have been tested at BSRIA in accordance with the above standard, ensuring your system meets these stringent requirements.

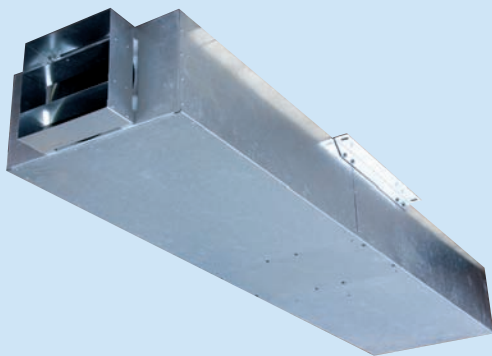
Nuaire, through their partners Airvent Systems, can offer a complete smoke ventilation solution for car parks & buildings in general from initial conceptual discussions right through the design, installation, commissioning and handover stages.

Nuaire's comprehensive high temperature range includes -

- Up to 1600mm diameter
- 300°C for 2 hours
- 400°C for 2 hours

The Impulse system

- **Energy efficient** – By monitoring the air quality and operating the system at its optimum level the overall motor power and running costs can be reduced by up to 40%
- **Space saving** – Low depth unit eliminates the need for ducting, maximising car park space availability
- **Full design & installation service** – An experienced technical team offer design, supply, installation & commissioning to suit your project requirements
- **Quiet systems** – Unit has inlet and outlet silencers ensuring low noise levels are maintained
- **Cost savings** – Less ductwork can typically reduce costs by up to 30%
- **Safety tested** – All equipment is tested to **EN12101-3**, 300°C for 2 hours
- **Fully reversible option** – Flexible directional flow responds to any fire location
- **Quick and easy installation** – Unique mounting bracket allows for 2 stage, 'quick' installation
- **Warranty** – AXUS Impulse range has a 3 year warranty



quick delivery axial fans

From Nuaire's extensive range of long case Axial fans, a cross section of units, to cover a wide range of duty have been manufactured as part of our "Off the Shelf" stock range. A number of each unit are stored at Nuaire's onsite warehouse meaning delivery is available to UK customers next day.

Specification

Axis circular inline axial flow fan manufactured from galvanised steel. Fan incorporates inlet and outlet flanges with pre-drilled bolt holes, and an external terminal box to IP55. The motor is totally enclosed and protected to IP55, foot mounted class "F" insulated and has sealed for life ball bearings (-30Deg C + 50Deg C).

Impeller Blades are adjustable manufactured from injection moulded GRP (-10Deg to +80DegC) mounted in a die cast aluminium alloy hub as standard.



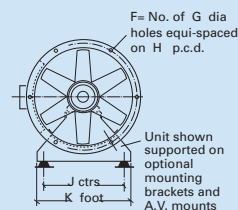
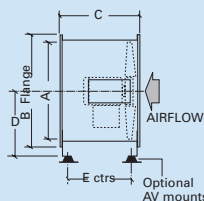
Dimensions & Weights

2-Pole

Fan code	A	B	C	D	E	F	G	H	J	K	Kg
AX31B-211	315	400	350	210	270	8	12	355	220	270	20
AX35F-251	350	430	350	240	270	8	12	395	250	300	22
AX40M-211	400	490	440	270	370	8	12	450	290	340	31
AX40I-253	400	490	440	270	370	8	12	450	290	340	44
AX45F-253	450	540	440	300	360	8	12	500	330	380	51
AX50P-273	500	608	600	340	520	12	12	560	380	430	75
AX56P-273	560	670	600	370	520	12	12	620	420	470	101
AX63S-223	630	740	440	430	360	12	12	690	500	550	104

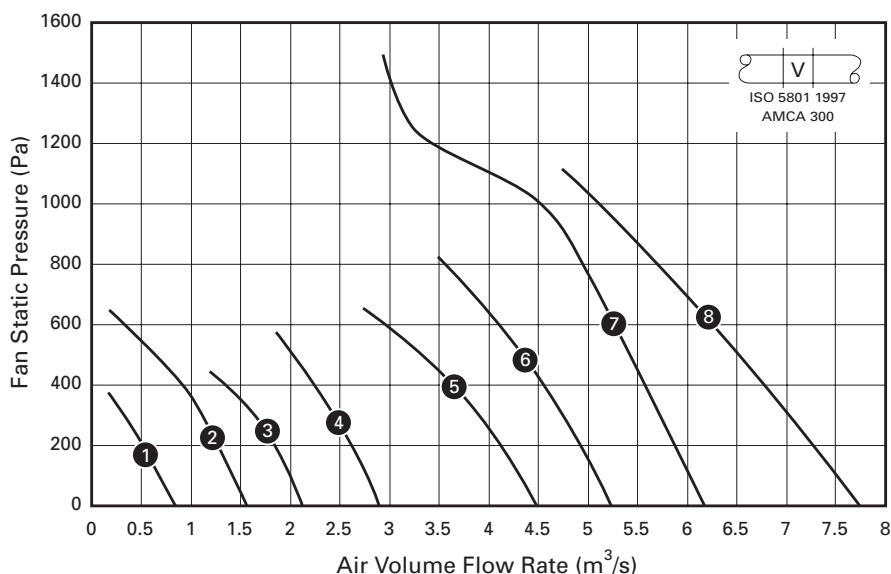
4-Pole

Fan code	A	B	C	D	E	F	G	H	J	K	Kg
AX31F-441	315	400	350	210	270	8	12	355	220	270	21
AX35F-451	350	430	350	240	270	8	12	395	250	300	22
AX40F-411	400	490	440	270	370	8	12	450	290	340	28
AX45P-481	450	540	440	300	360	8	12	500	330	380	35
AX50P-481	500	608	440	340	360	12	12	560	380	430	35
AX63S-421	630	740	440	430	360	12	12	690	500	550	50
AX56AA-473	560	670	440	370	360	12	12	620	420	470	49
AX63AD-473	630	740	440	430	360	12	12	690	500	550	61



quick delivery axial fans

Axial 2 Pole



Technical Data 2-Pole

Curve Code	Phase	RPM	Input Power (kW)	flc (amps)	sc (amps)	Data Type	Sound Power Levels (dB re 10 ⁻¹² W) Octave band mid frequency (Hz)								Breakout dBA @ 3m
							63	125	250	500	1k	2k	4k	8k	
1	AX31B-211	1	2780	0.25	2.073	7	inlet	86	88	88	83	77	73	70	64
						outlet	89	88	99	87	80	74	69	65	61
2	AX40M-211	1	2800	0.75	5.143	21	inlet	91	93	95	91	87	79	74	69
						outlet	91	96	96	91	87	79	73	69	64
3	AX35F-251	1	2780	1.5	9.5	45.6	inlet	92	90	85	86	84	81	76	71
						outlet	92	89	87	89	88	85	80	74	60
4	AX40I-253	3	2868	3	6.595	48	inlet	92	92	87	90	90	85	80	76
						outlet	96	92	88	92	89	86	81	76	63
5	AX45F-253	3	2865	4	8.333	68.7(DOL) 22.9(SD)	inlet	89	91	85	90	89	85	82	79
						outlet	90	92	89	97	92	88	83	80	66
6	AX50P-273	3	2930	7.5	14.7	130(DOL) 44.33(SD)	inlet	97	94	92	98	94	90	85	85
						outlet	101	96	93	99	95	92	87	84	70
7	AX63S-223	3	2949	9	19.26	133(DOL) 44.33(SD)	Inlet	93	93	94	101	104	98	95	90
						outlet	96	95	94	101	98	96	93	89	74
8	AX56P-273	3	2958	11	21.2	172(DOL) 57.33(SD)	inlet	92	96	92	98	95	90	86	83
						outlet	93	102	96	105	98	93	88	81	73



Mounting Brackets (pair)
Code: CMB



Matching Flange (single)
Code: CMF



Flexible Connector (Single)
Code: CFC



Anti-Vibration Mounts (for fan only)
Codes: See Table



Acoustic Jacket
Code: ACJAC



Attenuator
(standard, long & podded options)
Code: CAS, CAL, CASP, CALP



Guard
Code: CGD



Inlet Cone
Code: CIC

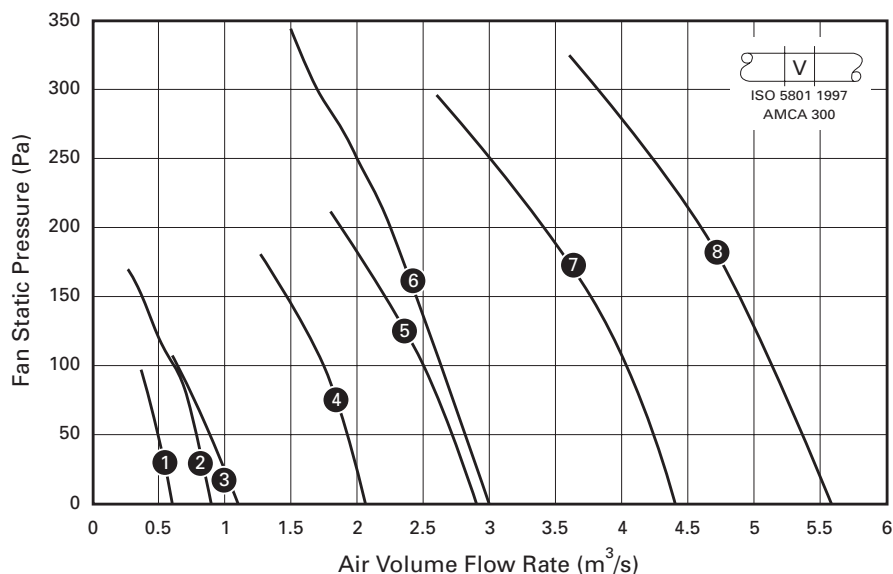


Backdraught Damper
Code: CBD

quick delivery axial fans



Axial 4 Pole



Technical Data 4-Pole

		Input					Data Type	Sound Power Levels (dB re 10 ⁻¹² W)								Breakout	
		RPM	Power (kW)	flc (amps)	sc (amps)	Octave band mid frequency (Hz)								dBA @ 3m			
Curve Code	Phase					63		125	250	500	1k	2k	4k		8k		
1	AX31F-441	1	1410	0.12	1	2.8	inlet	69	71	74	63	62	58	52	46	43	
							outlet	83	84	78	70	66	61	54	47		
2	AVLX40F-411	1	1410	0.12	1.133	2.8	inlet	70	69	74	70	68	66	61	53	43	
							outlet	80	71	76	68	67	66	61	54		
3	AX35F-451	1	1430	0.18	1.843	7.02	inlet	77	74	78	65	65	61	57	53	45	
							outlet	80	76	81	69	68	65	59	54		
4	AX45P-481	1	1370	0.55	4.72	15.12	inlet	79	80	81	73	71	66	60	55	49	
							outlet	80	82	83	77	74	69	63	58		
5	AX50P-481	1	1420	1.1	7	35	inlet	83	79	80	77	74	69	63	59	52	
							outlet	87	83	87	80	76	71	65	61		
6	AX63S-421	1	1420	1.1	7	35	inlet	87	95	98	90	84	78	72	65	64	
							outlet	83	92	95	92	86	81	72	65		
7	AX56AA-473	3	1438	1.8	4.008	24	inlet	80	83	83	81	78	73	70	67	56	
							outlet	88	87	91	84	80	76	72	68		
8	AX63AD-473	3	1437	3	7.481	39	inlet	81	87	87	84	81	77	73	67	58	
							outlet	86	88	88	88	83	80	75	70		



Mounting Brackets (pair)
Code: CMB



Matching Flange (single)
Code: CMF



Flexible Connector (Single)
Code: CFC



Anti-Vibration Mounts (for fan only)
Codes: See Table



Acoustic Jacket
Code: ACJAC



Attenuator
(standard, long & podded options)
Code: CAS, CAL, CASP, CALP



Guard
Code: CGD



Inlet Cone
Code: CIC



Backdraught Damper
Code: CBD