

## SMOKE FANS

327

FAN TYPE	FAN LOCATION	MAX PERFORMANCE	PAGE
IMPULSE AXIAL	SMOKE	1.8m <sup>3</sup> /s	330
IMPULSE CENTRIFUGAL	SMOKE	2.69m <sup>3</sup> /s	331
AXUS CONTRA-ROTATING	SMOKE	42m <sup>3</sup> /s	334
AXUS RUN & STANDBY	SMOKE	45m <sup>3</sup> /s	338
HT AXUS	SMOKE	64m <sup>3</sup> /s	342
HT SQUIF	SMOKE	6.5m <sup>3</sup> /s	366
HT TWIN SQUIF	SMOKE	6.2m <sup>3</sup> /s	374

## SMOKE CONTROL - NEW DIRECTIONS

Nuaire provides the total package for smoke control with schemes designed to fully comply with statutory and regulatory requirements. Our team of skilled engineers include experienced staff who were responsible for introducing the first Impulse systems to the UK for car park applications.

The majority of fire related mortalities are because people have been asphyxiated by deadly toxic gases that are produced during a fire.

One of the biggest hazards in the event of a fire is that of smoke inhalation. It is essential to provide adequate ventilation in car parks, even though modern cars have been fitted with catalytic converters they still produce surprisingly high levels of harmful pollutants. Our ventilation systems remove combustible gases, fuel spill vapours, uncombusted fuel particles and displace oxygen.

By redirecting combustion gases to where they will do least harm, valuable time is available to evacuate personnel to safety and provide protection to buildings.

DESIGN

CO-ORDINATION

MANUFACTURE

CERTIFIED

INSTALLATION

COMMISSIONING



The car park Impulse system is used to control and remove contaminants on a day-to-day basis, whilst ensuring smoke is removed quickly and efficiently in the event of a fire. Strategically positioned Impulse fans, mounted on the ceiling, create a virtual smoke barrier ensuring quick and effective clearance whilst keeping the rest of the car park smoke free.

Eliminating the need for complicated ductwork systems optimises space and saves money. The system is also extremely energy efficient as it monitors the air quality and operates the system at its optimum level, reducing the running costs by up to 40% compared with traditional ducted systems. Also, fewer fans are required as they distribute the air over such a large area.

Nuaire's range of services and support can be tailored to satisfy the individual requirements of underground car parks, shopping centres and warehouses or pressurisation systems for commercial, office and hotel buildings.

Nuaire offers design through to commissioning for applications such as underground car parks.

## HOW THE SYSTEM WORKS

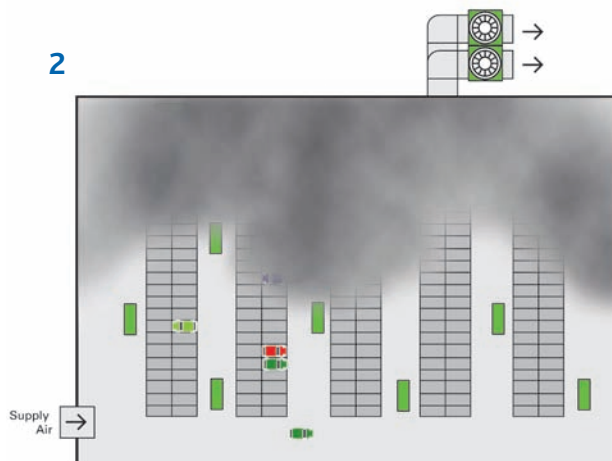
The car park impulse system is used to control and remove contaminants on a day to day basis, whilst ensuring that smoke is removed quickly and efficiently in the event of a fire. The system utilises a number of strategically positioned impulse fans, mounted on the ceiling, that push the fumes and smoke towards a designated point of exhaust.

This in effect creates a virtual smoke barrier ensuring quick and effective clearance whilst keeping the rest of the car park smoke free. This removes the need for complicated ductwork systems and optimises space.

### Airflow under fire conditions

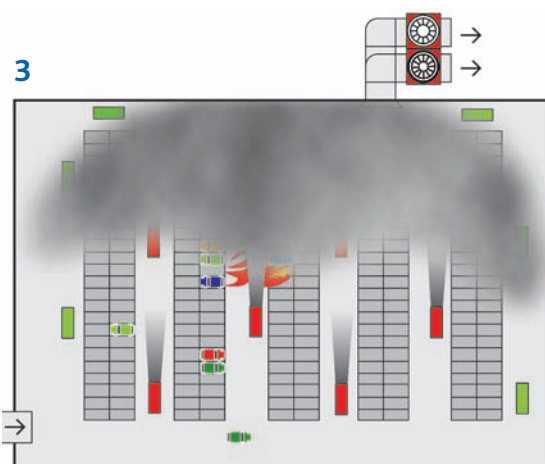


The system runs at low speed ensuring that Carbon Monoxide levels and other contaminants are kept within acceptable limits. Strategically placed detectors monitor the air and only control the units which can directly effect the condition.

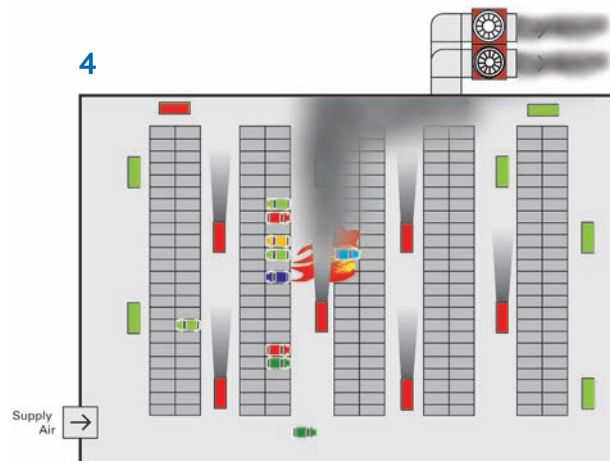


If a fire starts in one of the vehicles and smoke starts to spread throughout the car park, the smoke detection system identifies the situation and the fire alarm system will be activated. The system will switch to smoke mode.

**Key:**  
■ Car Park Impulse fan low speed/day to day  
■ Car Park Impulse fan high speed/smoke mode



Smoke detectors throughout the car park identify the units which can most effectively contain the smoke layer and increases the fan speed of these units to maximum, the main exhaust unit is also switched to maximum.



The smoke is contained and directed towards the main extract unit, where the smoke can be safely exhausted to atmosphere. This minimises the spread of smoke within the car park, keeping large areas clear of smoke, enabling the area to be quickly and safely evacuated.

Main exhaust/Run & standby, low speed/day to day

Main exhaust/Run & standby, high speed/smoke mode

AXUS SVT2 AXIAL IMPULSE CAR PARK VENTILATION FANS

SPACE SAVING - FROM 320MM

Low depth unit eliminates the need for ducting, maximising car park space availability.

FLAT PROFILE

Unit sits flush to ceiling ensuring dirt will not gather on top surface unlike round axial fans.

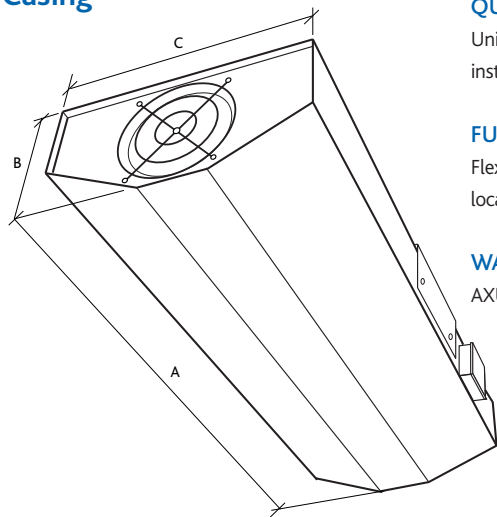
FULL DESIGN & INSTALLATION SERVICE

An experienced technical team offer design, supply, installation and commissioning to suit your project requirements.

QUIET SYSTEMS

Unit has inlet and outlet silencers ensuring low noise levels are maintained.

Casing



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%.

ALTERNATIVE FINISHES AVAILABLE

Units can be painted to match car park surroundings.

COST SAVINGS

Less ductwork can typically reduce costs by up to 30%.

SAFETY TESTED

All equipment is tested to EN12101-3, 300oC for 2 hours.

QUICK AND EASY INSTALLATION

Unique mounting bracket allows for 2 stage, 'quick' installation.

FULLY REVERSIBLE OPTION

Flexible directional flow responds to any fire location.

WARRANTY

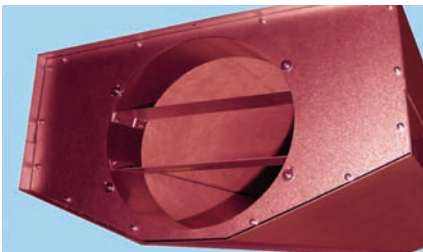
AXUS Impulse range has a 3 year warranty.

Code descriptions

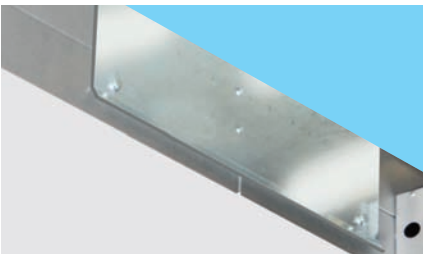
SVT2-1 (AE)

1 2 3

- 1. Axus Impulse Axial Range
  - 2. Case size/performance range
  - 3. Impeller angle
- Units are two speed as standard



Directional outlet diffuser. (Unit shown in an alternative painted finish).



Unique mounting bracket.



Safety inlet guard.



Built in control box.

TECHNICAL DETAILS, DIMENSIONS (mm) & PERFORMANCE DATA		
Fan Reference:	SVT2-1	SVT2-2
Airflow m³/s: Half/Full Speed	0.5/1.1	0.9/1.8
Thrust Newtons: Half/Full Speed*	5/25N	12/50N
Motor Power kw: Half/Full Speed*	0.23/1.1	0.23/1.1
Protection Class	IP55	IP55
Insulation	H	H
Electrical Supply	400/3/50	400/3/50
Motor FLC amps: Half/Full Speed	0.83/2.7A	0.83/2.7A
Motor SC amps: DOL Half/Full Speed	2.9/14.5	2.9/14.5
Temperature Classification: EN12101-3	300°C for 2 hours	300°C for 2 hours
Speed RPM: Half/Full Speed	1370/2775	1370/2775
Sound dBA @ 1m: Half/Full Speed	50/65	52/67
Material Finish	Galvanised	Galvanised
Dimensions A x B x C (mm)	2300 x 320 x 700*	2300 X 403 X 700*

\* These are based on an airflow deflector angle of 5°. \*\*Paint finish available.  
SVT2 can be provided single speed for control via frequency inverter.  
\*Allow an additional 55mm for the width of the Terminal Control Box.

## AXUS SVTC CENTRIFUGAL IMPULSE CAR PARK VENTILATION FANS

## SPACE SAVING

Low depth unit only 227mm deep eliminates the need for ducting, maximising car park space availability.

## 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%.

## COST SAVINGS

Less ductwork can typically reduce costs by up to 30%.

## AIR DISTRIBUTION

Large coverage of area resulting in fewer fans being required.

## FULL DESIGN &amp; INSTALLATION SERVICE

An experienced technical team offer design, supply, installation and commissioning to suit your project requirements.

## SAFETY TESTED

All equipment is tested to EN12101-3.

## WARRANTY

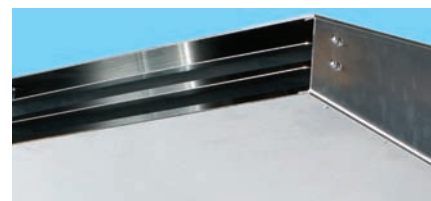
AXUS Impulse range has a 3 year warranty.

## Code descriptions

## SVTC - 15 - T6

1	2	3 4

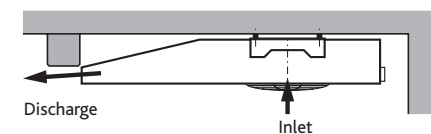
1. Axis Impulse Centrifugal Range
2. Case size/PERFORMANCE RANGE
3. No suffix = Single speed.  
Suitable for Frequency Inverter  
T = 2 Speed
4. = No suffix = 4 pole  
6 = 6 pole  
8 = 8 pole



Discharge grille.

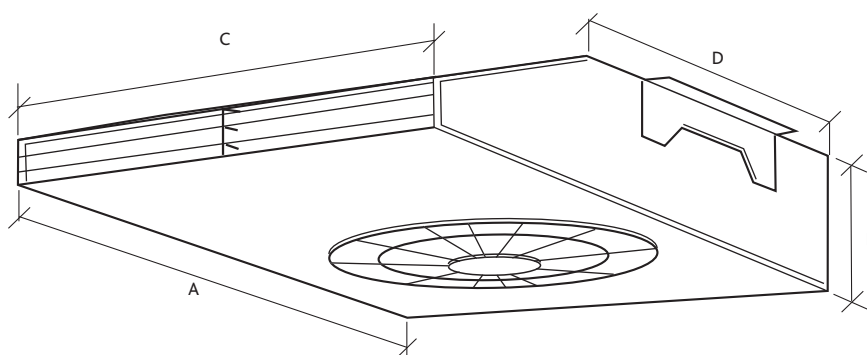


Inlet positioned on bottom of unit.



Inlet positioned on bottom of unit.

## Casing



## TECHNICAL DETAILS, DIMENSIONS (mm) &amp; PERFORMANCE DATA

Fan Reference:	SVTC-15*	SVTC-15-T6	SVTC-15-T8	SVTC-16*	SVTC-16-T6	SVTC-16-T8
Fan speed definition	Single Speed	Full & 2/3rds	Full & 1/2	Single Speed	Full & 2/3rds	Full & 1/2
Airflow m <sup>3</sup> /s: Low/High Speed	1.68	1.14/1.68	0.88/1.68	2.69	1.83/2.69	1.38/2.69
Thrust Newtons: Low/High Speed*	50	23/50	13/50	75	34/75	19/75
Motor Power kw: Low/High Speed*	1.5	0.55/1.5	0.25/1.5	2.2	0.75/2.2	0.37/2.2
Protection Class:	IP55	IP55	IP55	IP55	IP55	IP55
Insulation	H	H	H	H	H	H
Electrical Supply	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
Motor FLC amps: Low/High Speed	3.3	1.8/3.6	1.15/3.75	5	2.6/5	1.6/5.1
Motor SC amps: DOL Low/High Speed	5.8	3.9/7.4	2.9/5.2	6.4	4/7.1	3.8/6.3
Temperature Classification: EN12101-3	300°C for 2hrs	300°C for 2hrs	300°C for 2hrs	300°C for 2hrs	300°C for 2hrs	300°C for 2hrs
Speed RPM: Low/High Speed	1435	955/1425	715/1430	1435	955/1425	715/1430
Sound dBA @ 1m: Low/High Speed	78	69/78	64/78	85	76/85	71/85
Material Finish	Galvanised	Galvanised	Galvanised	Galvanised	Galvanised	Galvanised
Dimensions A x B x C (mm)	1265x227x790	1265x227x790	1265x227x790	1902x279x1150	1902x279x1150	1902x279x1150
Depth to bottom of guard	259	259	259	319	319	319
Dimension D	787	787	787	1150	1150	1150

\*SVTC-15 and SVTC-16 are single speed and can be controlled via a frequency inverter.



CONSULTANTS SPECIFICATION

CAR PARK IMPULSE SYSTEM

The car park ventilation system shall control and remove pollutants, such as Carbon Monoxide, on a day to day basis, whilst ensuring that smoke is removed quickly and efficiently in an emergency.

The car park Impulse Ventilation System shall consist of a number of strategically positioned acoustically treated Impulse fans distributed throughout the car park, the positions shall be in accordance with the specialists design & layout drawings.

Carbon Monoxide & smoke detectors shall be strategically placed in accordance with the specialists design and shall control the operation of the impulse fans in individual areas appropriately. By controlling the fans in this way the units will contain pollutants and smoke within a defined and predetermined corridor and channel its flow to the extract point where it can be evacuated safely to atmosphere by the main exhaust fan units. The control system ensures that only the fans that can directly effect the ventilation requirement are in operation. Fan specification.

The Nuaire SVTC unit comprising centrifugal impeller, motor and all assembled components shall be certified for high temperature operation at 300°C for 2 hours, the range shall have been type tested to EN12101-3. The Axus Main exhaust units and ancillaries shall have been type tested and certified for high temperature operation of 300°C for 2 hours to EN12101-3.

The units shall be either 2 speed or inverter driven providing, low speed for day to day environmental extract and one off operation for emergency extract.

The Nuaire SVTC unit shall have inlet guards for safety purposes and to prevent debris being sucked through the fan. It also has a specially designed airflow deflector to direct the jet stream from the fan at the required angle sufficient to overcome the natural buoyancy effect of the smoke.

The car park impulse units shall be the SVTC type and the main Exhaust units shall be the high temperature AXUS type all as manufactured by Nuaire.

COMPLETE SOLUTION FOR CAR PARK VENTILATION

Nuaire Smoke Design Partners have over twenty years experience in the smoke ventilation industry and their project managers were instrumental in establishing the first Car Park impulse system in the UK, designing, installing and commissioning the system.

Utilising the latest computer aided design, computational fluid dynamic technology and extensive testing, to master the physics and behaviour of fires within buildings. By understanding the movement of the fire and smoke and combining that with the knowledge and expertise of fire engineering, ventilation and containment principles, ensures the design of a bespoke smoke ventilation system to protect any building and its occupants whilst providing safe, healthy, clean and welcoming car parks.

Complete solutions for Car Park Ventilation

Services offered include:

- Conceptual design.
- Dedicated technical in-house support team.
- Regulatory compliance/co-ordination.
- UK's largest sales engineer network.
- Onsite liaison.
- Installation.
- Commissioning.
- Maintenance.
- Whole life support facility.

Contact Nuaire to discuss your requirements or for a focused and highly relevant CPD seminar at a location to suit your team Tel: 029 (20) 858 200.

## CONSULTANTS SPECIFICATION

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### FAN SPECIFICATION

The Nuaire SVT2 impulse unit comprises of a high temperature axial fan with specially designed inlet and outlet attenuators which, along with the fan unit, are encased in a Galvanised steel acoustic enclosure.

The Nuaire SVT2 unit comprising fan/motor assembly, and inlet and outlet silencers shall be certified for high temperature operation at 300°C for 2 hours, the range shall have been type tested to EN12101-3. The Axus Main exhaust units and ancillaries shall have been type tested and certified for high temperature operation of 300°C for 2 hours to EN12101-3.

The units shall be either 2 speed or inverter driven providing, low speed for day to day environmental extract and one off operation for emergency extract. They shall also be suitable for reversible operation.

Fully reversible options (i.e similar duty in both airflow directions) are available, please contact Nuaire for details.

The unit shall have a unique mounting bracket, which shall enable the bracket to be positioned as a "first fix" component with the unit being fitted as a "second fix" component, avoiding possible mechanical damage.

The Nuaire SVT2 unit shall have inlet guards for safety purposes and to prevent debris being sucked through the fan. It shall also have a specially designed airflow deflector to direct the jet stream from the fan at the required angle sufficient to overcome the natural buoyancy effect of the smoke.

The car park impulse units shall be the SVT2 type and the main Exhaust units shall be the high temperature AXUS type all as manufactured by Nuaire.

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AXUS CONTRA ROTATING AXIAL FANS

HIGH PRESSURE ALTERNATIVE TO SINGLE STAGE AXIAL FANS.





## BENEFITS

### HIGH PERFORMANCE

Developed to provide optimum performance for each case size.

13 Case diameters 315 - 1250mm.

Airflow - up to 42m<sup>3</sup>/s.

Static pressure - up to 2500 Pa.

Operating temperature, 300°C for 2 hours,

400°C for 2 hours.

### HIGH TEMPERATURE

Units are suitable for smoke reservoir and non smoke reservoir applications - EN 12101-3 2002.

Units are dual purpose for day to day plus 'one off' emergency use.

### TESTED TO THE HIGHEST STANDARDS

Air performance to BS848 (part 1) 2007 and ISO5801 (Part 1) 2007.

### ACOUSTIC PERFORMANCE

AMCA300.

### FLEXIBLE SOLUTION

Units can be installed at any angle.

### MATCHING ATTENUATORS & ANCILLARIES

AV mounts, flexible connectors, mounting Brackets, Matching Flanges, Inlet Cones, Guard, backdraught damper.

### AVAILABLE OPTIONS

AXUS units suitable for two speed operation (full and half speed). AXUS units available with access doors suitable for cleaning and observation.

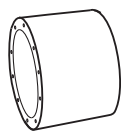
### WARRANTY

Axus Contra-Rotating have a 3 year warranty.

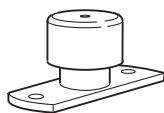
Units suitable for continuous operation at temperatures up to 60°C and a 1 off operation in smoke mode.

For larger sizes contact Nuaire.

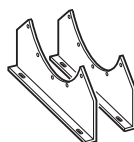
### MATCHING ANCILLARIES



Attenuators - Standard and Long options available.



Anti Vibration Mounts



Mounting Brackets.



Flexible Connectors.



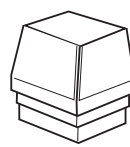
Matching Flanges.



Inlet Cones.



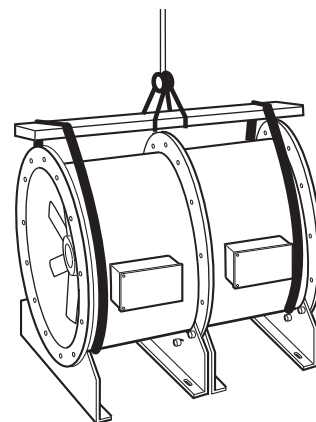
Anti-backdraft Damper.



Arc Cowl.

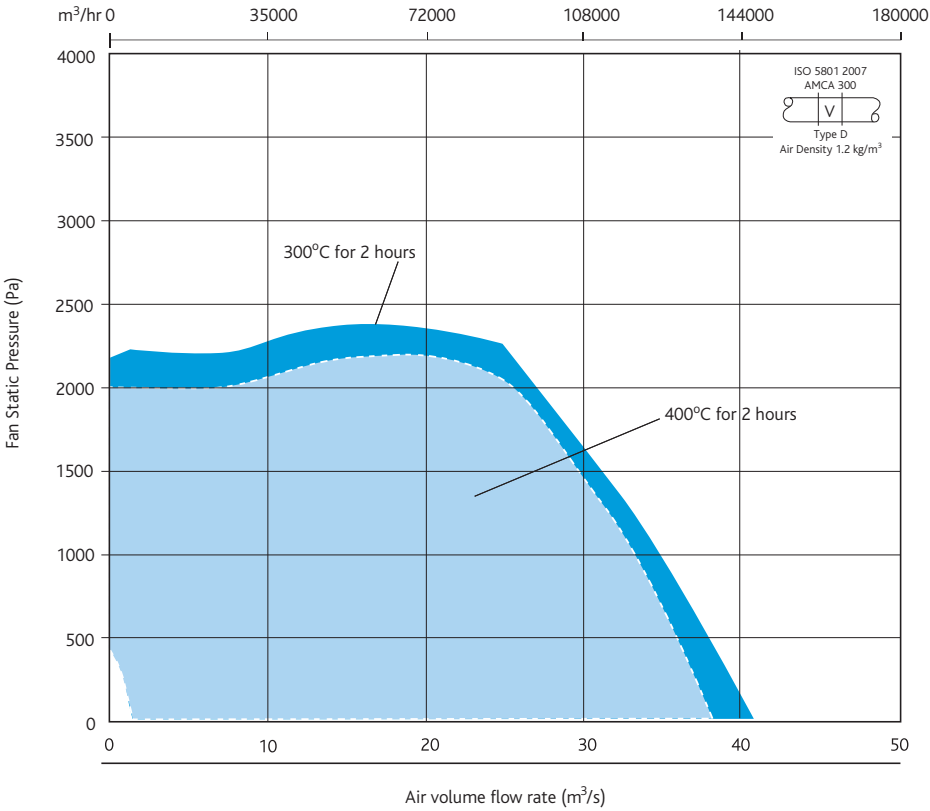
See page 360 for further details on ancillaries.

### LIFTING METHOD

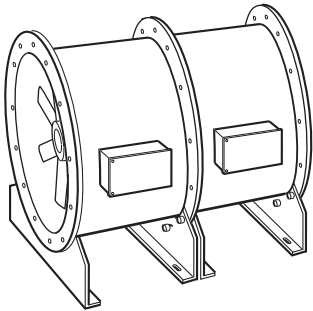


See installation & maintenance documents for full details.

PERFORMANCE - AXUS HIGH TEMPERATURE CONTRA ROTATING FANS



Casing



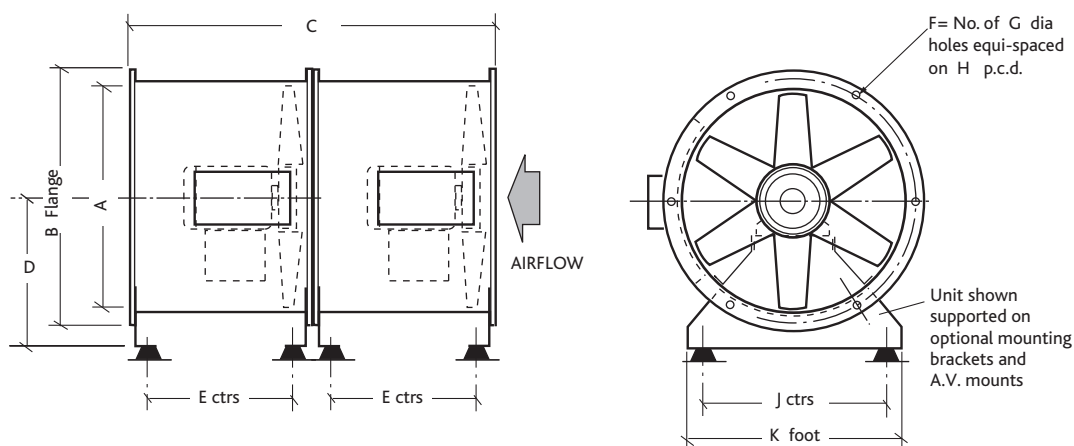
Code descriptions

AXC 100 AA - 4 1 3 A 7 T

1	2	3	4	5	6	7	8	9
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- 1. Axus Contra-rotating axial
- 2. Case diameter in cm
- 3. Impeller specification reference
- 4. Motor speed in poles
- 5. Impeller blade angle reference
- 6. Electrical supply in phase  
3 = 400V, 50Hz three phase
- 7. Impeller material  
A = Aluminium  
S = Steel
- 8. Operating Temperature  
7 = 300°C for 2 hours  
8 = 400°C for 2 hours
- 9. Other options (combinations possible)  
T = Two speed (full and half)  
Z = Access Door

## DIMENSIONS - AXUS HIGH TEMPERATURE CONTRA ROTATING FANS



## DIMENSIONS (mm)

Code	Frame	A	B	C	D	E	F	G	H	J	K
AXC31	63-71	315	400	730	210	620	8	12	355	220	270
AXC35	63-90	350	430	760	240	620	8	12	395	250	300
AXC40	63-100	400	490	880	270	810	8	12	450	290	340
AXC45	63-112	450	540	900	300	800	8	12	500	330	380
AXC50	63-112	500	608	930	340	800	12	12	560	380	430
AXC50	132	500	608	1230	340	1120	12	12	560	380	430
AXC56	71-100	560	670	880	370	800	12	12	620	420	470
AXC56	132	560	670	1230	370	1120	12	12	620	420	470
AXC63	63-112	630	740	960	430	800	12	12	690	500	550
AXC63	132-180	630	740	1200	430	1120	12	12	690	500	550
AXC71	80-112	710	814	910	470	800	16	12	770	540	600
AXC71	132	710	814	1400	470	1320	16	12	770	540	600
AXC80	80-112	800	910	880	540	800	16	12	860	590	650
AXC80	132-160	800	910	1680	540	1320	16	12	860	590	650
AXC90	90-180	900	1016	1480	600	1400	16	15	970	670	750
AXC100	90-180	1000	1128	1480	670	1370	16	15	1070	770	850
AXC100	200	1000	1128	1700	670	1590	16	15	1070	770	850
AXC112	100-160	1120	1240	1460	750	1350	20	15	1190	870	950
AXC112	180-200	1120	1240	1730	750	1620	20	15	1190	870	950
AXC112	225-250	1120	1240	2020	750	1910	20	15	1190	870	950
AXC125	100-200	1250	1365	1730	830	1620	20	15	1320	920	1000
AXC125	225-280	1250	1365	2020	830	1910	20	15	1320	920	1000

For unit weights and pressure drops above 2500 pascals, please call our technical team on 029 2085 8200.

AXUS RUN & STANDBY AXIAL FANS

GUARANTEED VENTILATION FOR  
HIGH TEMPERATURE APPLICATIONS.



## BENEFITS

### GUARANTEED EMERGENCY VENTILATION

Run and standby fan ensures emergency ventilation in the case of fan failure.

### HIGH PERFORMANCE

Developed to provide optimum performance for each case size.

16 Case diameters 315 - 1600mm.

Airflow - up to 45m³/s.

Static pressure - up to 780 Pa.

Operating temperature, 300°C for 2 hours, 400°C for 2 hours.

### HIGH TEMPERATURE

Units are suitable for smoke reservoir and non smoke reservoir applications - EN 12101-3 2002.

Units are dual purpose for day to day plus 'one off' emergency use.

### TESTED TO THE HIGHEST STANDARDS

Air performance to BS848 (part 1) 2007 and ISO5801 (Part 1) 2007.

### ACOUSTIC PERFORMANCE

AMCA300.

### FLEXIBLE SOLUTION

Units can be installed at any angle.

### MATCHING ATTENUATORS & ANCILLARIES

AV mounts, flexible connectors, mounting Brackets, Matching Flanges, Inlet Cones, Guard, backdraught damper.

### AVAILABLE OPTIONS

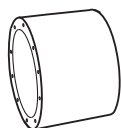
AXUS units suitable for two speed operation (full and half speed). AXUS units available with access doors suitable for cleaning and observation.

### WARRANTY

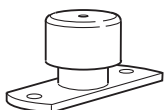
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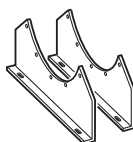
### MATCHING ANCILLARIES



Attenuators - Standard and Long options available.



Anti Vibration Mounts



Mounting Brackets.



Flexible Connectors.



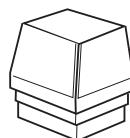
Matching Flanges.



Inlet Cones.



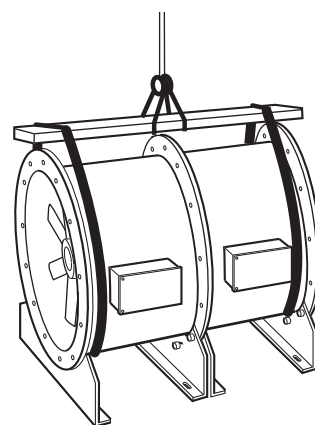
Anti-backdraft Damper.



Arc Cowl.

See page 360 for further details on ancillaries.

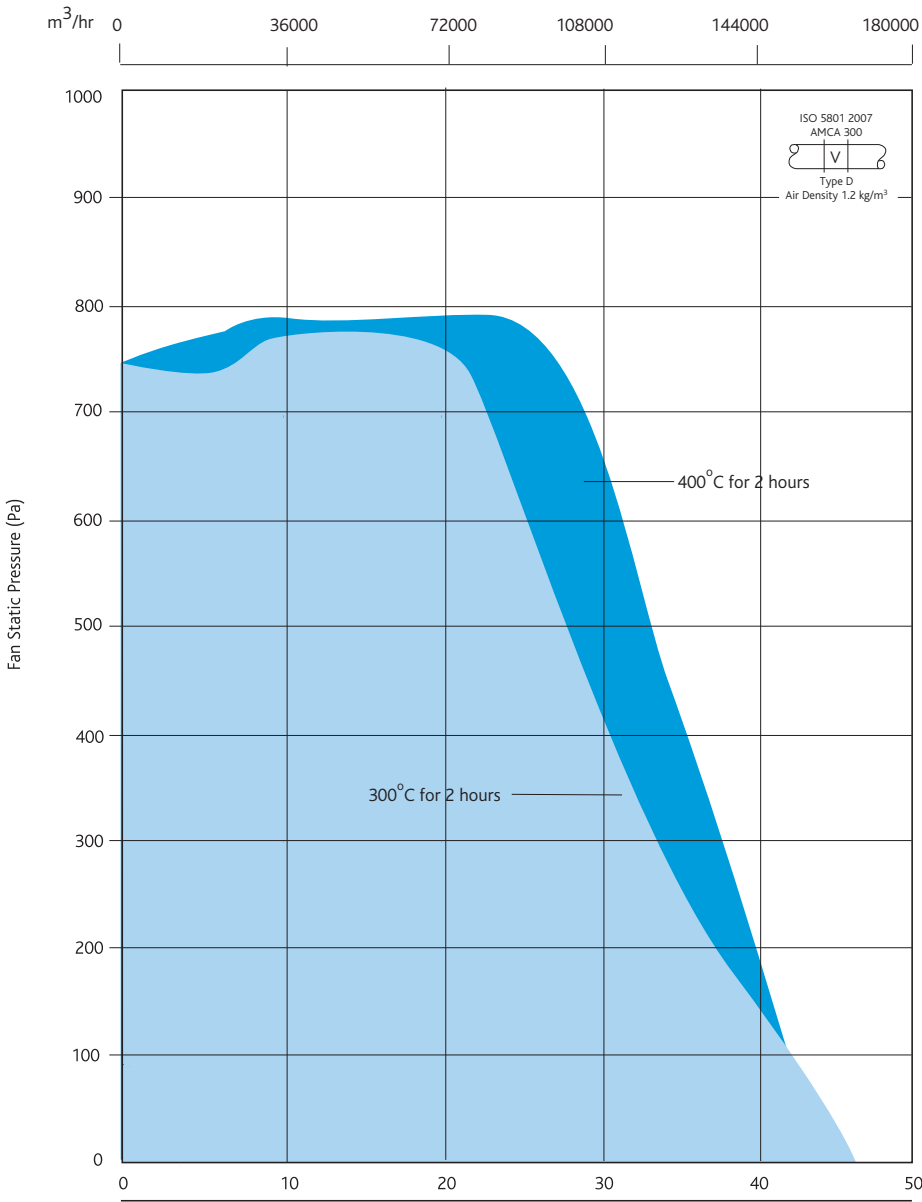
### LIFTING METHOD



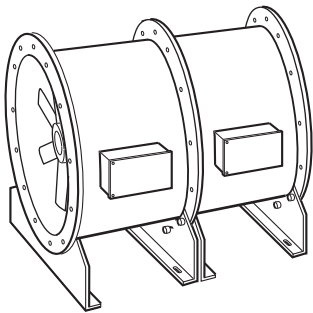
See installation & maintenance documents for full details.



PERFORMANCE - AXUS HIGH TEMPERATURE RUN & STANDBY FANS



Casing

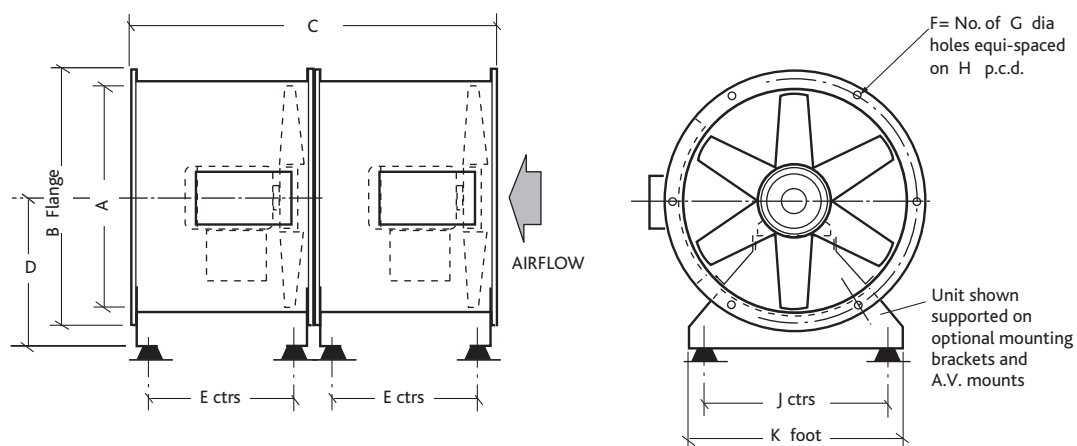


Code descriptions

AXT 100 AA - 4 1 3 A 7 T

- | 1                        | 2                   | 3                                | 4                    | 5                              | 6                          | 7                          | 8  | 9  |
|--------------------------|---------------------|----------------------------------|----------------------|--------------------------------|----------------------------|----------------------------|--|--|
| 1.                       | 2.                  | 3.                               | 4.                   | 5.                             | 6.                         | 7.                         | 8.   | 9.   |
| Axis Run & Standby axial | Case diameter in cm | Impeller specification reference | Motor speed in poles | Impeller blade angle reference | Electrical supply in phase | Impeller material          | Operating Temperature                          | Other options (combinations possible)                                    |
|                          |                     |                                  |                      |                                | 3 = 400V, 50Hz three phase | A = Aluminium<br>S = Steel | 7 = 300°C for 2 hours<br>8 = 400°C for 2 hours | T = Two speed (full and half)<br>Z = Access Door<br>T6 = Full and 2/3rds |

## DIMENSIONS - AXUS HIGH TEMPERATURE RUN &amp; STANDBY FANS



## DIMENSIONS (mm)

Code	Frame	A	B	C	D	E	F	G	H	J	K
AXT31	63-71	315	400	730	210	620	8	12	355	220	270
AXT35	63-90	350	430	760	240	620	8	12	395	250	300
AXT40	63-100	400	490	880	270	810	8	12	450	290	340
AXT45	63-112	450	540	900	300	800	8	12	500	330	380
AXT50	63-112	500	608	930	340	800	12	12	560	380	430
AXT50	132	500	608	1230	340	1120	12	12	560	380	430
AXT56	71-100	560	670	880	370	800	12	12	620	420	470
AXT56	132	560	670	1230	370	1120	12	12	620	420	470
AXT63	63-112	630	740	960	430	800	12	12	690	500	550
AXT63	132-180	630	740	1200	430	1120	12	12	690	500	550
AXT71	80-112	710	814	910	470	800	16	12	770	540	600
AXT71	132	710	814	1400	470	1320	16	12	770	540	600
AXT80	80-112	800	910	880	540	800	16	12	860	590	650
AXT80	132-160	800	910	1680	540	1320	16	12	860	590	650
AXT90	90-180	900	1016	1480	600	1400	16	15	970	670	750
AXT100	90-180	1000	1128	1480	670	1370	16	15	1070	770	850
AXT100	200	1000	1128	1700	670	1590	16	15	1070	770	850
AXT112	100-160	1120	1240	1460	750	1350	20	15	1190	870	950
AXT112	180-200	1120	1240	1730	750	1620	20	15	1190	870	950
AXT112	225-250	1120	1240	2020	750	1910	20	15	1190	870	950
AXT125	100-200	1250	1365	1730	830	1620	20	15	1320	920	1000
AXT125	225-280	1250	1365	2020	830	1910	20	15	1320	920	1000

For unit weights and pressure drops above 2500 pascals, please call our technical team on 029 2085 8200.  
 1800 & 2000 are available with standard motors (ambient 55°C).  
 Unit sizes 1400 - 1600mm call Nuaire for details.

AXUS HIGH TEMPERATURE AXIAL FANS

WIDE RANGE OF SMOKE EXTRACT FANS FOR  
HIGH TEMPERATURE APPLICATIONS.



## BENEFITS

### TRIED & TESTED

Nuaire's high temperature fans have been tested in accordance with the latest legislation and testing procedures. High temperature fans have been tested to EN12101-3 (2002) 300°C for 2 hours or 400°C for 2 hours.

### HIGH TEMPERATURE PERFORMANCE

Units are suitable for smoke reservoir and non smoke reservoir applications. Units are dual purpose for day to day plus 'one off' emergency use.

### WIDE RANGE

The widest range of high temperature axials available. A fan to match every application ensures maximum efficiency and saving costly energy.

### HEAVY GAUGE GALVANISED STEEL CONSTRUCTION

Ensuring strength, durability, protection from damage during installation and corrosion resistant for a long life.

### TESTED TO THE HIGHEST STANDARDS

Air performance to BS848 (part 1) 2007 and ISO5801 (part1) 2007 with acoustic performance to AMCA300. All carried out at our own test facilities to ensure the most accurate performance figures and noise data is provided, constantly monitored to give you up to date information you can rely on.

### FAN OPTIONS

As well as contra-rotating & run/standby series, other options are available including 400°C for 2 hours & two speed.

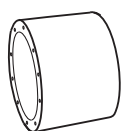
### COMPREHENSIVE ANCILLARIES

Including a range of attenuators, and mounting ancillaries all pre-selected for the individual fan to ensure a perfect match and eliminate any on-site fitting problems.

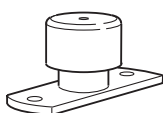
### WARRANTY

High Temperature Axial fans have a 3 year warranty.

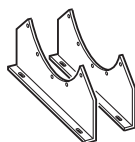
### MATCHING ANCILLARIES



Attenuators - Standard and Long options available.



Anti Vibration Mounts



Mounting Brackets.



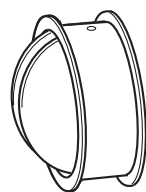
Flexible Connectors.



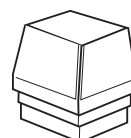
Matching Flanges.



Inlet Cones.



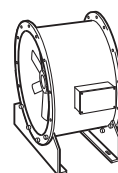
Anti-backdraft Damper.



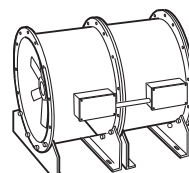
Arc Cowl.

See page 360 for further details on ancillaries.

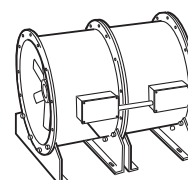
### CASE OPTIONS



AXUS Circular Axial.



AXUS Contra-Rotating.

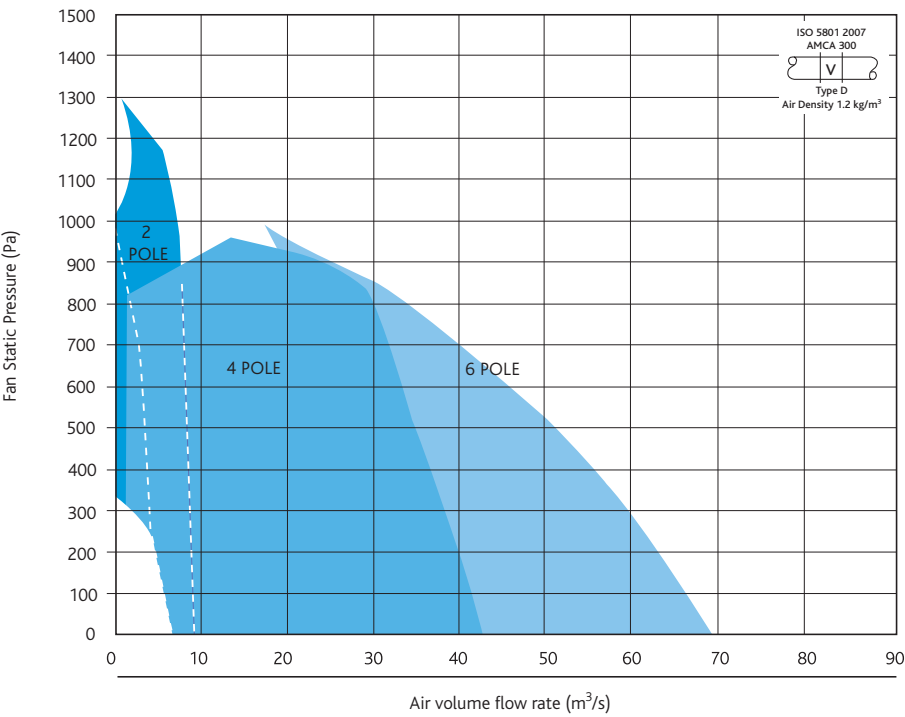


AXUS Run & Standby.

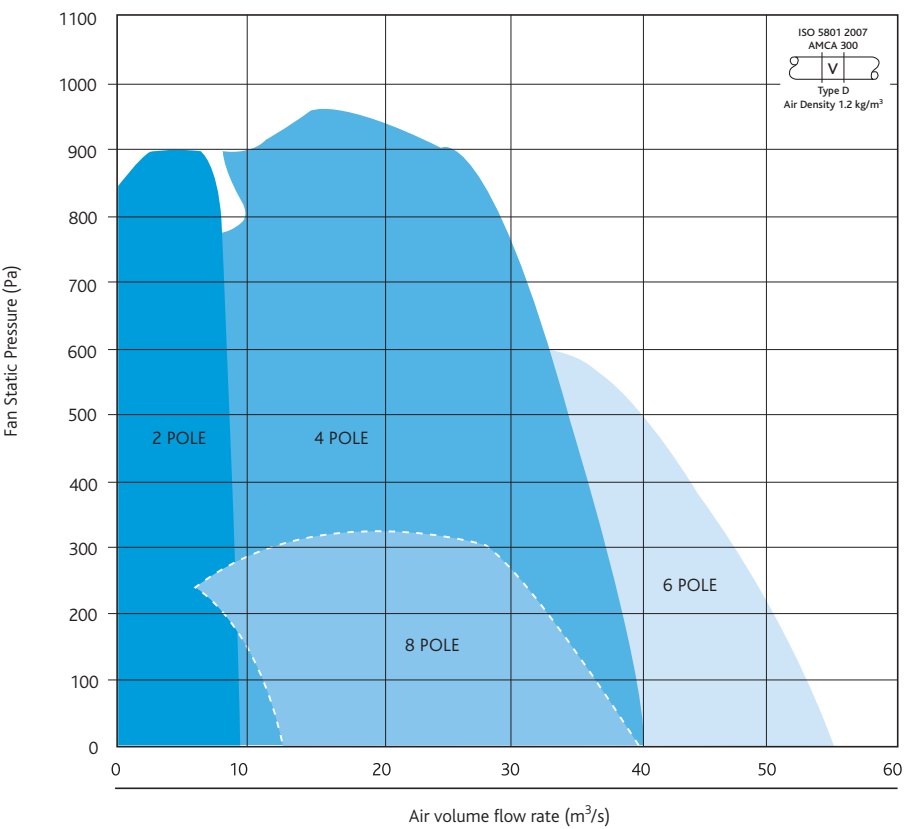
DUTY RANGE - AXUS HIGH TEMPERATURE LONG CASED AXIAL FANS

Below is an indication of the overall duty range, a selection of which is covered in this brochure. Please contact Nuaire Technical on (029) 2085 8200 for any duty outside the range indicated.

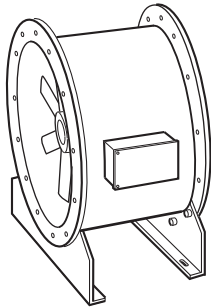
AXUS - Axial flow fans for smoke control (300°C for 2 Hours)



AXUS - Axial flow fans for smoke control (400°C for 2 Hours)



Casing



Code descriptions

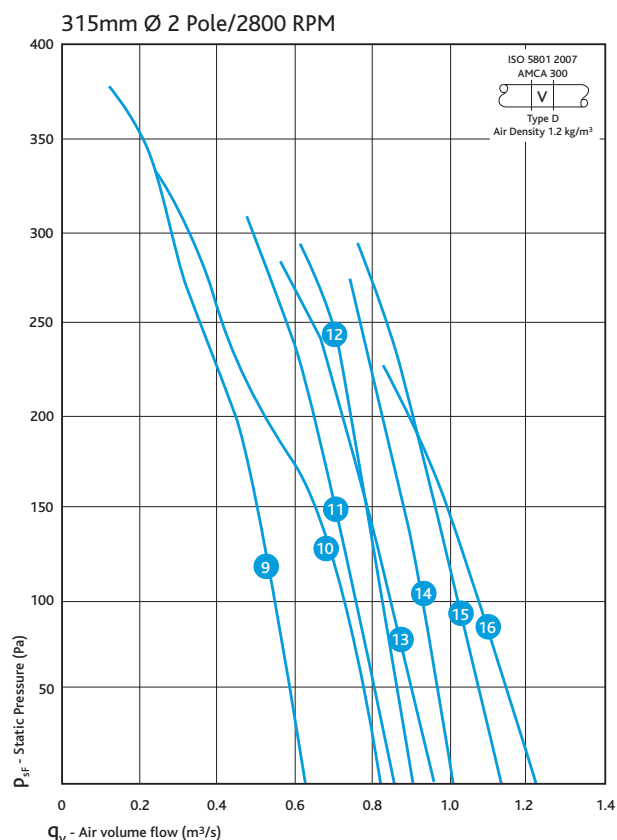
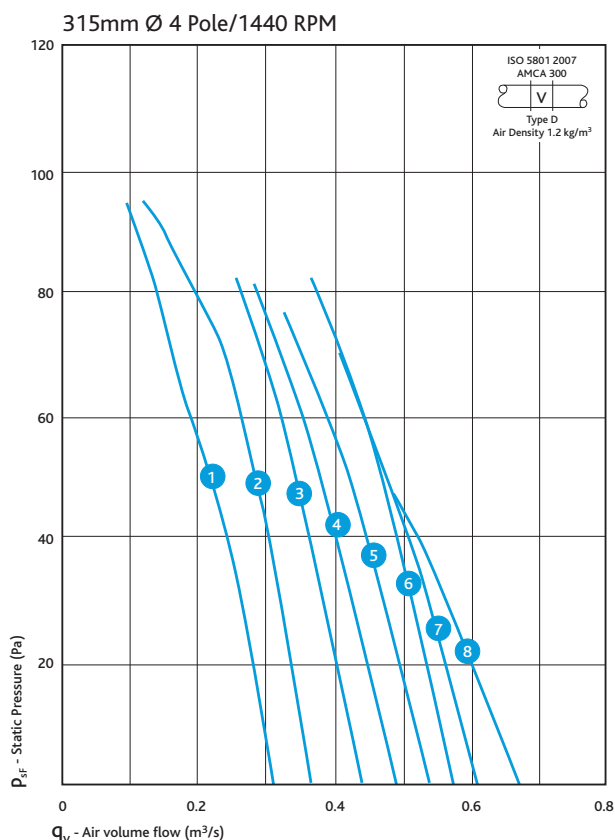
AX 100 A - 4 1 3 A 7 T

1	2	3	4	5	6	7	8	9
---	---	---	---	---	---	---	---	---

- 1. Axus long cased Axial
- 2. Case diameter in cm
- 3. Impeller specification reference
- 4. Motor speed in poles
- 5. Impeller blade angle reference
- 6. Electrical supply in phase  
3 = 400V, 50Hz three phase
- 7. Impeller material  
A = Aluminium  
S = Steel
- 8. Operating Temperature  
7 = 300°C for 2 hours  
8 = 400°C for 2 hours
- 9. Other options (combinations possible)  
T = Two speed (full and half)  
T6 = Two speed (full and two thirds  
(4/6 pole only)



## PERFORMANCE - AXUS LONG CASED AXIAL UNITS - 315MM Ø (300°C FOR 2 HOURS)



**NOTE:** THE CURVES ABOVE ARE INDICATIVE OF THE RANGE, A MORE COMPREHENSIVE SELECTION IS AVAILABLE, PLEASE CONTACT NUAIRE TECHNICAL, OR OBTAIN A COPY OF OUR FAN SELECTOR PROGRAMME VIA OUR WEBSITE.

## ELECTRICAL &amp; SOUND

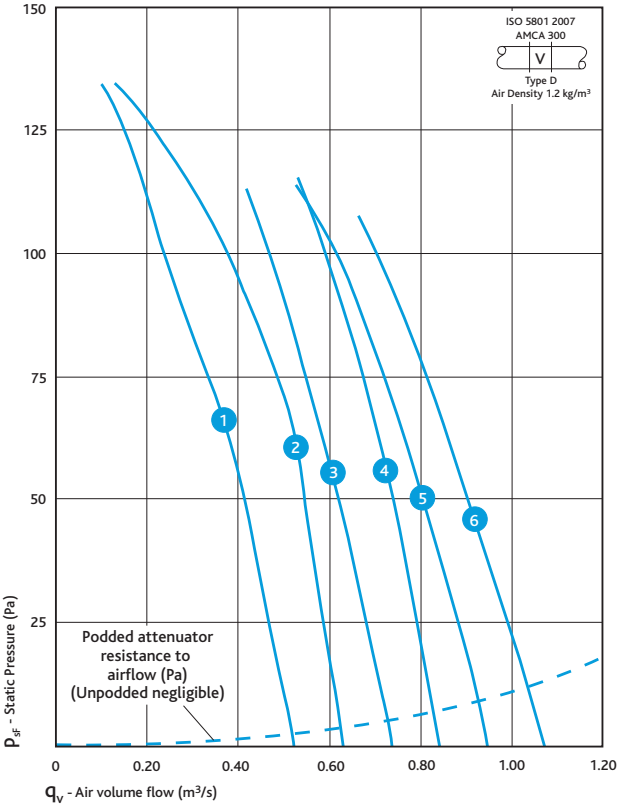
Curve No	Unit Code	Blade Angle <sup>o</sup>	Speed RPM	Unit kg	A.V. Set	Motor frame size	3 Phase (400V)			In-duct inlet sound power levels dB re 1pW								Breakout dBA @ 3m
							Motor kW	FLC amps	SC amps	Octave band mid frequency Hz								
										125	250	500	1K	2K	4K	8K		
315 Ø - 4 Pole/1440rpm																		
1	AX31M-413A7	20 <sup>o</sup>	1415	21	NAV38	80	0.55	1.5	7.2	85	72	65	61	58	50	42	42	
2	AX31X-413A7	25 <sup>o</sup>	1415	21	NAV38	80	0.55	1.5	7.2	77	72	63	61	58	48	42	40	
3	AX31X-423A7	30 <sup>o</sup>	1415	21	NAV38	80	0.55	1.5	7.2	79	72	64	61	58	49	43	40	
4	AX31X-443A7	35 <sup>o</sup>	1415	21	NAV38	80	0.55	1.5	7.2	77	70	63	62	58	48	41	39	
5	AX31X-463A7	40 <sup>o</sup>	1415	21	NAV38	80	0.55	1.5	7.2	82	71	64	63	59	50	44	41	
6	AX31F-443A7	40 <sup>o</sup>	1415	21	NAV38	80	0.55	1.5	7.2	70	75	63	65	61	53	46	41	
7	AX31F-453A7	45 <sup>o</sup>	1415	21	NAV38	80	0.55	1.5	7.2	71	72	64	65	61	55	48	40	
8	AX31B-453A7	45 <sup>o</sup>	1415	21	NAV38	80	0.55	1.5	7.2	71	71	63	61	59	55	50	39	
315 Ø - 2 Pole/2800rpm																		
9	AX31M-213A7	20 <sup>o</sup>	2875	23	NAV38	80	0.75	1.65	11.2	81	97	80	78	74	70	63	57	
10	AX31B-213A7	25 <sup>o</sup>	2875	23	NAV38	80	0.75	1.65	11.2	72	78	75	75	72	69	63	5	
11	AX31X-223A7	30 <sup>o</sup>	2875	23	NAV38	80	0.75	1.65	11.2	85	86	80	77	73	68	64	54	
12	AX31F-223A7	30 <sup>o</sup>	2875	23	NAV38	80	0.75	1.65	11.2	79	78	80	76	73	70	65	52	
13	AX31X-243A7	35 <sup>o</sup>	2875	23	NAV38	80	0.75	1.65	11.2	82	89	79	79	75	71	64	54	
14	AX31F-233A7	35 <sup>o</sup>	2875	23	NAV38	80	0.75	1.65	11.2	79	77	78	77	74	71	65	52	
15	AX31F-243A7	40 <sup>o</sup>	2875	23	NAV38	80	0.75	1.65	11.2	82	79	79	79	74	69	65	53	
16	AX31B-243A7	40 <sup>o</sup>	2875	23	NAV38	80	0.75	1.65	11.2	76	80	78	78	73	68	64	50	

**Notes relating to the table:** The electrical and sound information in the table is **nominal**. Breakout dBA@3m is spherical, free field. Start currents (sc.) are for DOL starting.

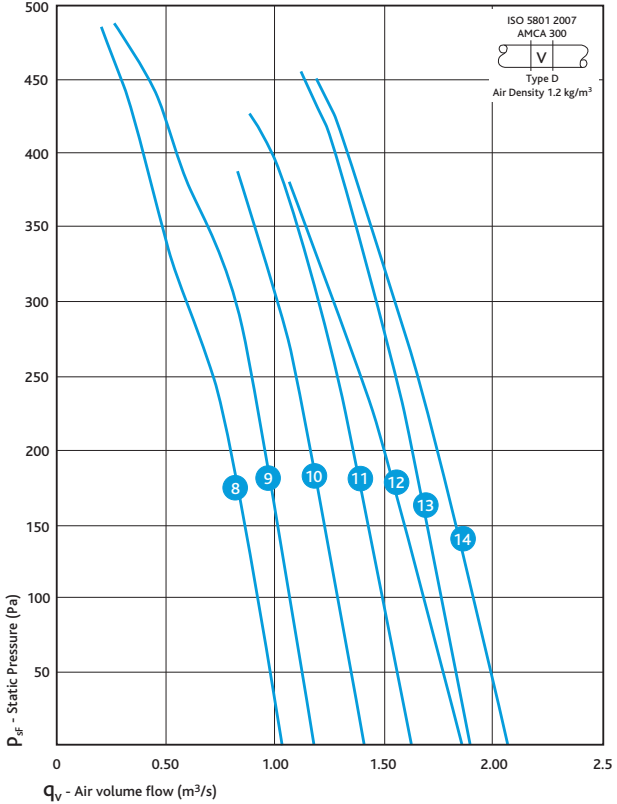
See page 360 for further details on ancillaries.

PERFORMANCE - AXUS LONG CASED AXIAL UNITS - 350MM Ø (300°C FOR 2 HOURS)

350mm Ø 4 Pole/1440 RPM



350mm Ø 2 Pole/2800 RPM



NOTE: THE CURVES ABOVE ARE INDICATIVE OF THE RANGE, A MORE COMPREHENSIVE SELECTION IS AVAILABLE, PLEASE CONTACT NUAIRE TECHNICAL, OR OBTAIN A COPY OF OUR FAN SELECTOR PROGRAMME VIA OUR WEBSITE.

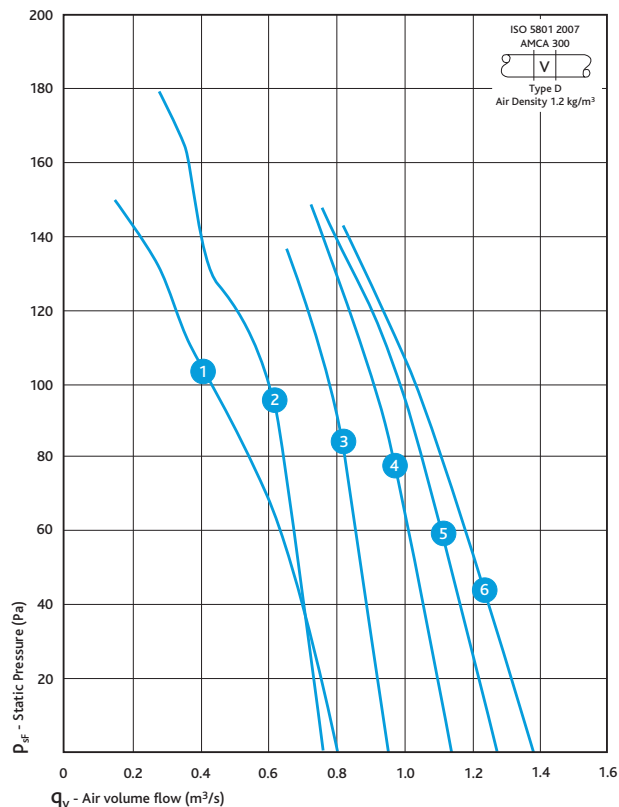
ELECTRICAL & SOUND

Curve No	Unit Code	Blade Angle°	Speed RPM	Unit kg	A.V. Set	Motor frame size	3 Phase (400V)			In-duct inlet sound power levels dB re 1pW							Breakout dBA @ 3m
							Motor kW	FLC amps	SC amps	Octave band mid frequency Hz							
							125	250	500	1K	2K	4K	8K				
350 Ø - 4 Pole/1440 rpm																	
1	AX35M-413A7	20°	1415	22	NAV38	80	0.55	1.5	7.2	81	69	66	64	61	56	50	44
2	AX35F-413A7	25°	1415	22	NAV38	80	0.55	1.5	7.2	75	72	66	65	63	57	49	41
3	AX35D-413A7	25°	1415	22	NAV38	80	0.55	1.5	7.2	69	67	66	62	62	55	48	42
4	AX35X-423A7	30°	1415	22	NAV38	80	0.55	1.5	7.2	89	77	66	63	59	50	43	48
5	AX35F-433A7	35°	1415	22	NAV38	80	0.55	1.5	7.2	69	78	64	64	62	56	49	44
6	AX35F-443A7	40°	1415	22	NAV38	80	0.55	1.5	7.2	73	75	64	63	59	55	50	42
7	AX35F-453A7	45°	1415	22	NAV38	80	0.55	1.5	7.2	74	78	65	65	61	57	53	45
350 Ø - 2 Pole/2800rpm																	
8	AX35M-213A7	20°	2875	23	NAV38	80	1.1	2.3	17.9	81	88	79	81	76	72	67	55
9	AX35X-213A7	25°	2875	26	NAV38	80	1.1	2.3	17.9	84	89	81	80	76	74	66	57
10	AX35X-223A7	30°	2875	26	NAV38	80	1.1	2.3	17.9	85	96	81	81	77	74	66	60
11	AX35X-243A7	35°	2875	26	NAV38	80	1.1	2.3	17.9	87	88	83	84	79	75	68	58
12	AX35M-273A7	40°	2875	23	NAV38	80	1.1	2.3	17.9	86	101	82	82	79	74	69	65
13	AX35F-243A7	40°	2875	22	NAV38	90	1.5	3.1	25.7	90	85	86	84	81	76	71	60
14	AX35F-253A7	45°	2875	22	NAV38	90	1.5	3.1	25.7	90	85	86	84	81	76	71	60

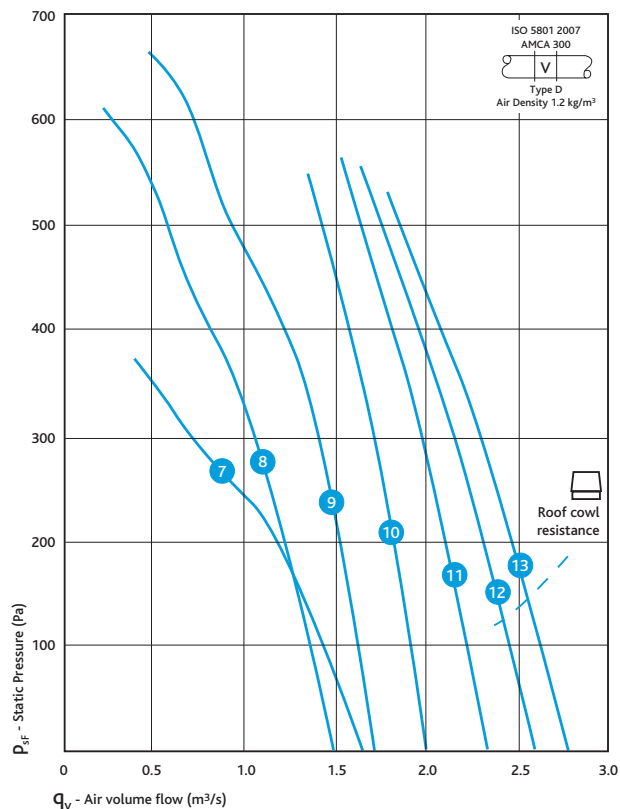
Notes relating to the table: The electrical and sound information in the table is **nominal**. Breakout dBA@3m is spherical, free field. Start currents (sc.) are for DOL starting.  
See page 360 for further details on ancillaries.

## PERFORMANCE - AXUS LONG CASED AXIAL UNITS - 400MM Ø (300°C FOR 2 HOURS)

400mm Ø 4 Pole/1440 RPM



400mm Ø 2 Pole/2800 RPM



**NOTE:** THE CURVES ABOVE ARE INDICATIVE OF THE RANGE, A MORE COMPREHENSIVE SELECTION IS AVAILABLE, PLEASE CONTACT NUAIRE TECHNICAL, OR OBTAIN A COPY OF OUR FAN SELECTOR PROGRAMME VIA OUR WEBSITE.

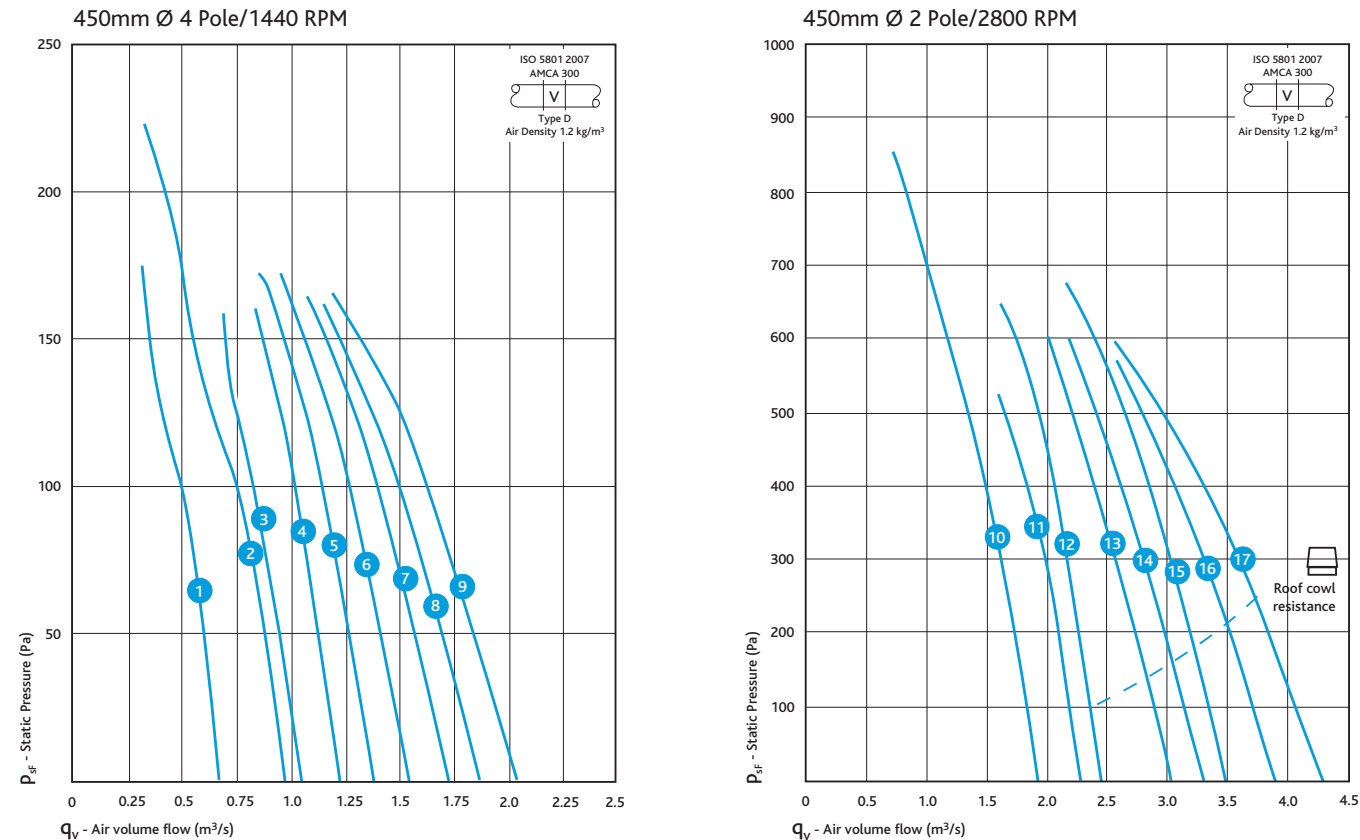
## ELECTRICAL &amp; SOUND

Curve No	Unit Code	Blade Angle°	Speed RPM	Unit kg	A.V. Set	Motor frame size	3 Phase (400V)			In-duct inlet sound power levels dB re 1pW								Breakout dBA @ 3m
							Motor kW	FLC amps	SC amps	Octave band mid frequency Hz								
										125	250	500	1K	2K	4K	8K		
400 Ø - 4 Pole/1440 rpm																		
1	AX40D-413A7	25°	1415	26	NAV38	80	0.55	1.5	7.2	71	81	69	66	65	59	51	49	
2	AX40I-413A7	25°	1415	30	NAV38	80	0.55	1.5	7.2	72	77	73	69	67	63	54	45	
3	AX40I-423A7	30°	1415	30	NAV38	80	0.55	1.5	7.2	69	76	70	66	64	60	53	44	
4	AX40I-433A7	35°	1415	30	NAV38	80	0.55	1.5	7.2	72	79	70	67	63	58	53	45	
5	AX40I-443A7	40°	1415	30	NAV38	80	0.55	1.5	7.2	76	77	70	68	64	60	55	45	
6	AX40I-453A7	45°	1415	30	NAV38	80	0.55	1.5	7.2	76	77	71	69	64	60	55	46	
400 Ø - 2 Pole/2800rpm																		
7	AX40C-213A7	25°	2875	31	NAV38	80	0.75	1.65	11.2	81	90	83	80	75	71	69	59	
8	AX40M-213A7	20°	2875	31	NAV38	80	0.75	1.65	11.2	81	89	83	84	79	75	72	57	
9	AX40F-213A7	25°	2875	38	NAV39	90	1.5	3.1	25.7	78	82	86	83	81	78	74	58	
10	AX40I-223A7	30°	2875	39	NAV39	90	1.8	3.6	31.3	82	81	89	84	80	78	75	61	
11	AX40I-233A7	35°	2875	39	NAV39	90	2.2	4.4	39.6	85	83	90	84	80	75	70	62	
12	AX40I-243A7	40°	2875	41	NAV39	100	3	5.8	53	88	86	92	85	81	76	72	63	
13	AX40I-253A7	45°	2875	44	NAV39	100	3	5.8	53	92	87	90	90	85	80	76	63	

**Notes relating to the table:** The electrical and sound information in the table is **nominal**. Breakout dBA@3m is spherical, free field. Start currents (sc.) are for DOL starting.

See page 360 for further details on ancillaries.

PERFORMANCE - AXUS LONG CASED AXIAL UNITS - 450MM Ø (300°C FOR 2 HOURS)



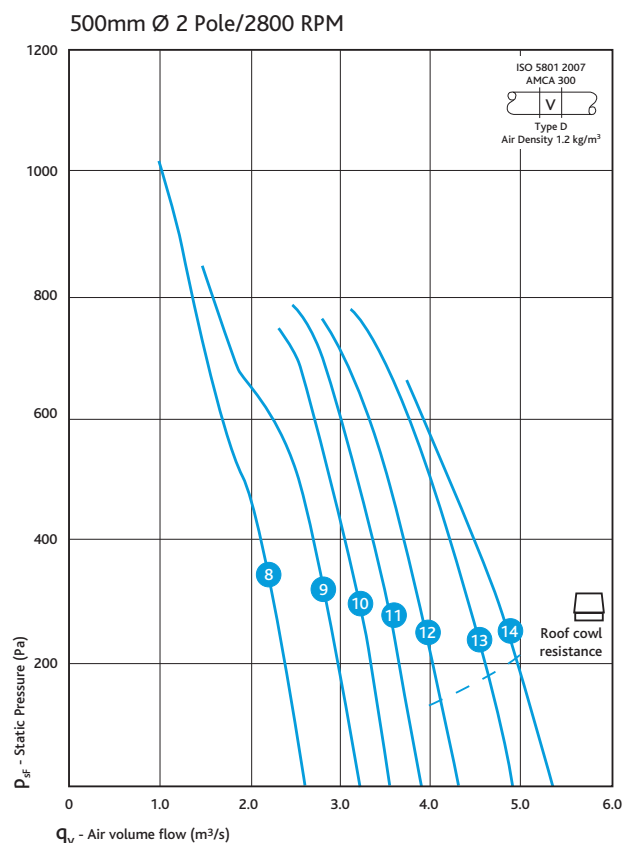
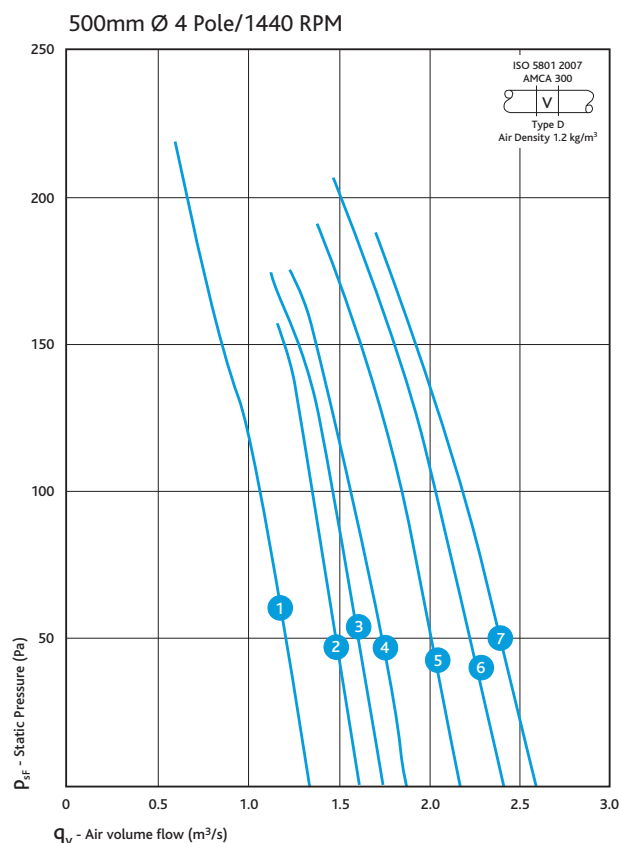
NOTE: THE CURVES ABOVE ARE INDICATIVE OF THE RANGE, A MORE COMPREHENSIVE SELECTION IS AVAILABLE, PLEASE CONTACT NUAIRE TECHNICAL, OR OBTAIN A COPY OF OUR FAN SELECTOR PROGRAMME VIA OUR WEBSITE.

ELECTRICAL & SOUND																		
Curve No	Unit Code	Blade Angle°	Speed RPM	Unit kg	A.V. Set	Motor frame size	3 Phase (400V)			In-duct inlet sound power levels dB re 1pW								Breakout dBA @ 3m
							Motor kW	FLC amps	SC amps	Octave band mid frequency Hz								
										125	250	500	1K	2K	4K	8K		
450 Ø - 4 Pole/1400 rpm																		
1	AX45S-413A7	20°	1415	34	NAV38	80	0.55	1.5	7.2	82	81	80	75	71	66	58	52	
2	AX45P-413A7	20°	1415	32	NAV38	80	0.55	1.5	7.2	79	79	78	74	71	66	58	50	
3	AX45S-433A7	30°	1415	34	NAV38	80	0.55	1.5	7.2	83	82	78	75	70	64	57	51	
4	AX45S-453A7	35°	1415	34	NAV38	80	0.55	1.5	7.2	83	81	80	78	72	68	61	53	
5	AX45S-473A7	40°	1415	34	NAV38	80	0.55	1.5	7.2	85	86	80	78	71	65	59	54	
6	AX45S-483A7	45°	1415	37	NAV39	80	0.75	2	9.8	83	84	80	77	69	65	59	55	
7	AX45AA-453A7	37.5°	1415	36	NAV39	80	0.55	1.5	7.2	82	79	75	73	68	61	55	49	
8	AX45P-473A7	40°	1415	36	NAV39	80	0.75	2	9.8	79	82	73	72	67	62	57	49	
9	AX45P-483A7	45°	1415	36	NAV39	80	0.75	2	9.8	80	81	73	71	66	60	55	49	
450 Ø - 2 Pole/2800rpm																		
10	AX45P-213A7	20°	2875	42	NAV39	90	1.8	3.6	31	85	86	91	91	87	83	81	64	
11	AX45AA-213A7	32.5°	2875	54	NAV41	100	3	5.8	53	90	87	91	89	85	81	79	64	
12	AX45S-253A7	35°	2910	55	NAV41	112	4	7.8	66	91	91	95	94	90	86	82	68	
13	AX45P-243A7	32.5°	2910	53	NAV41	112	4	7.8	66	88	86	91	90	87	82	79	65	
14	AX45P-253A7	35°	2910	53	NAV41	112	4	7.8	66	89	87	91	91	85	81	78	65	
15	AX45AA-253A7	37.5°	2910	56	NAV41	112	4	7.8	66	92	89	92	90	85	80	74	66	
16	AX45F-243A7	45°	2910	51	NAV41	112	4	7.8	66	85	82	93	89	85	81	78	65	
17	AX45F-253A7	45°	2910	51	NAV41	112	4	7.8	66	87	84	92	90	86	82	79	66	

Notes relating to the table: The electrical and sound information in the table is **nominal**. Breakout dBA@3m is spherical, free field. Start currents (sc.) are for DOL starting.

See page 360 for further details on ancillaries.

## PERFORMANCE - AXUS LONG CASED AXIAL UNITS - 500MM Ø (300°C FOR 2 HOURS)



**NOTE:** THE CURVES ABOVE ARE INDICATIVE OF THE RANGE, A MORE COMPREHENSIVE SELECTION IS AVAILABLE, PLEASE CONTACT NUAIRE TECHNICAL, OR OBTAIN A COPY OF OUR FAN SELECTOR PROGRAMME VIA OUR WEBSITE.

## ELECTRICAL &amp; SOUND

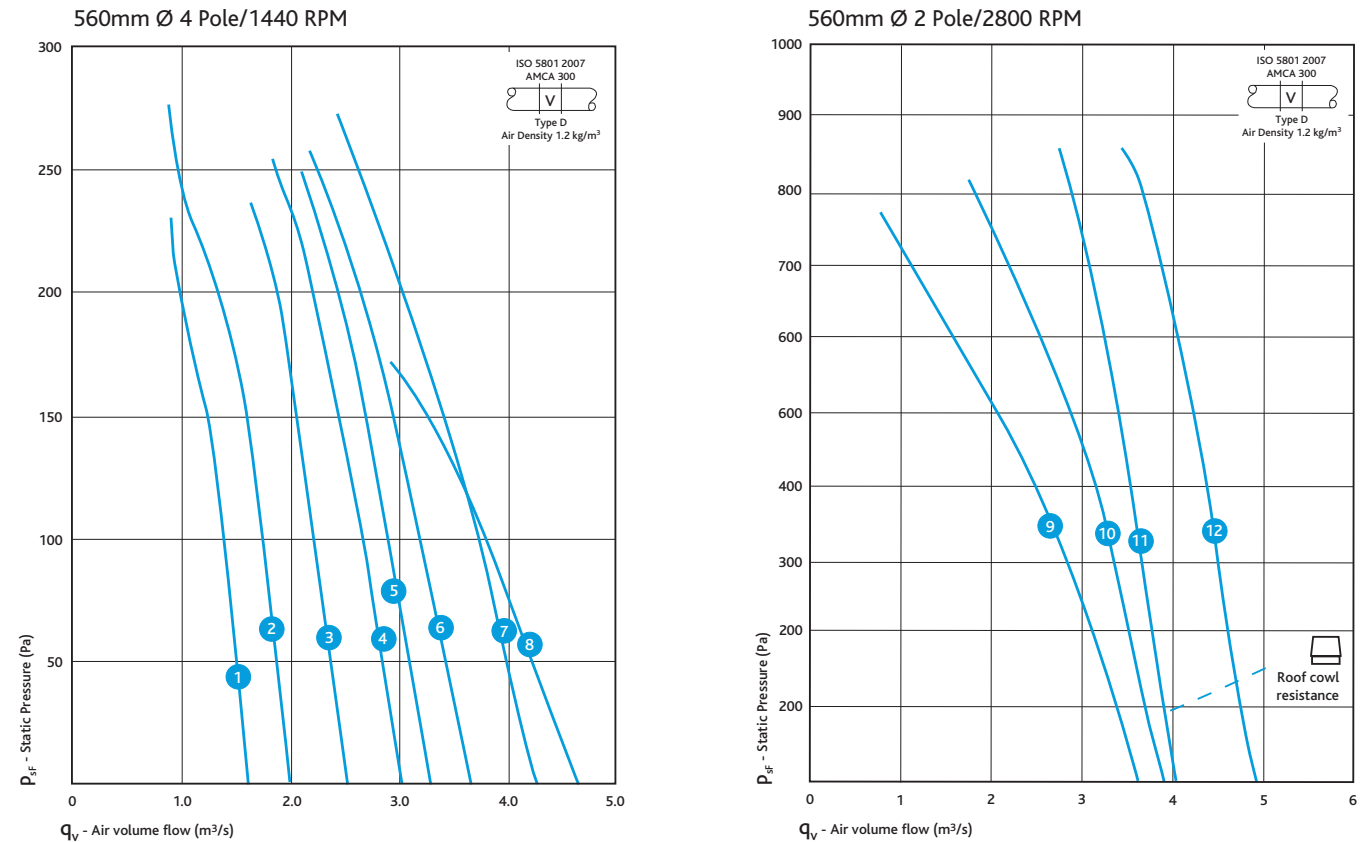
Curve No	Unit Code	Blade Angle°	Speed RPM	Unit kg	A.V. Set	Motor frame size	3 Phase (400V)			In-duct inlet sound power levels dB re 1pW								Breakout dBA @ 3m
							Motor kW	FLC amps	SC amps	Octave band mid frequency Hz								
										125	250	500	1K	2K	4K	8K		
500 Ø - 4 Pole/1440 rpm																		
1	AX50P-413A7	20º	1415	33	NAV38	80	0.55	1.5	7.2	79	80	81	77	73	68	60	53	
2	AX50S-433A7	30º	1415	35	NAV38	80	0.55	1.5	7.2	80	82	79	77	73	68	62	52	
3	AX50S-443A7	32.5º	1415	40	NAV39	80	0.75	2	9.8	81	87	79	78	73	68	61	53	
4	AX50S-453A7	35º	1415	40	NAV39	80	0.75	2	9.8	81	84	80	78	73	68	61	53	
5	AX50S-473A7	40º	1430	44	NAV39	90	1.1	2.5	14.3	85	84	78	77	70	65	60	53	
6	AX50P-473A7	40º	1430	42	NAV39	90	1.1	2.5	14.3	79	80	77	74	70	64	60	52	
7	AX50P-483A7	45º	1430	42	NAV39	90	1.1	2.5	14.3	79	80	77	74	69	63	59	52	
500 Ø - 2 Pole/2800rpm																		
8	AX50P-213A7	20º	2875	53	NAV41	100	3	5.8	53	87	87	93	95	92	87	85	67	
9	AX50P-223A7	25º	2910	58	NAV41	112	4	7.8	66	86	90	96	95	92	86	81	68	
10	AX50S-243A7	32.5º	2930	77	NAV43	132	7.5	14	118	93	94	96	94	89	85	81	69	
11	AX50S-253A7	35º	2930	77	NAV43	132	7.5	14	118	93	91	99	95	91	87	85	71	
12	AX50S-273A7	40º	2935	88	NAV43	132	9	16.6	146	95	93	97	97	92	88	86	71	
13	AX50P-263A7	40º	2930	75	NAV43	132	7.5	14	118	91	90	98	94	92	85	82	70	
14	AX50P-283A7	45º	2935	85	NAV43	132	9	16.6	146	93	91	99	95	91	86	85	71	

**Notes relating to the table:** The electrical and sound information in the table is **nominal**. Breakout dBA@3m is spherical, free field. Start currents (sc.) are for DOL starting.

See page 360 for further details on ancillaries.



PERFORMANCE - AXUS LONG CASED AXIAL UNITS - 560MM Ø (300°C FOR 2 HOURS)



NOTE: THE CURVES ABOVE ARE INDICATIVE OF THE RANGE, A MORE COMPREHENSIVE SELECTION IS AVAILABLE, PLEASE CONTACT NUAIRE TECHNICAL, OR OBTAIN A COPY OF OUR FAN SELECTOR PROGRAMME VIA OUR WEBSITE.

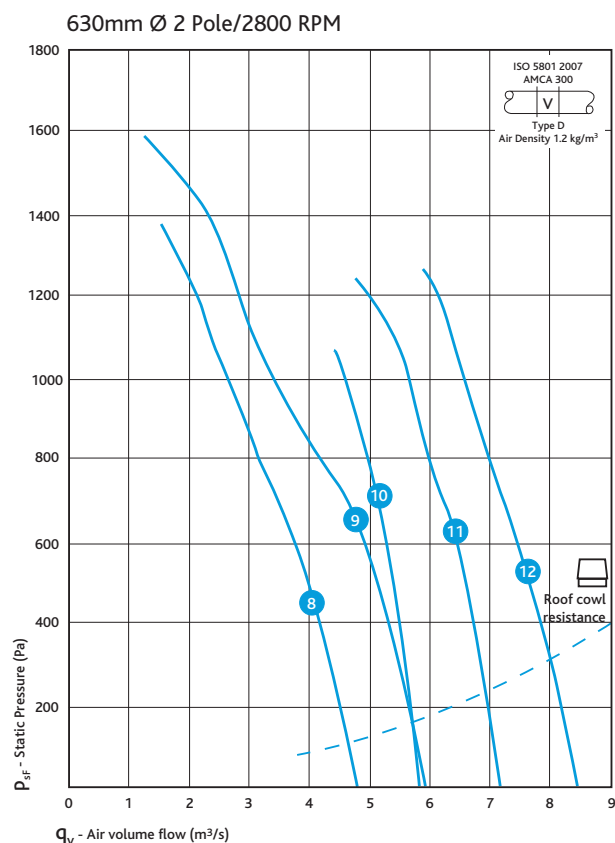
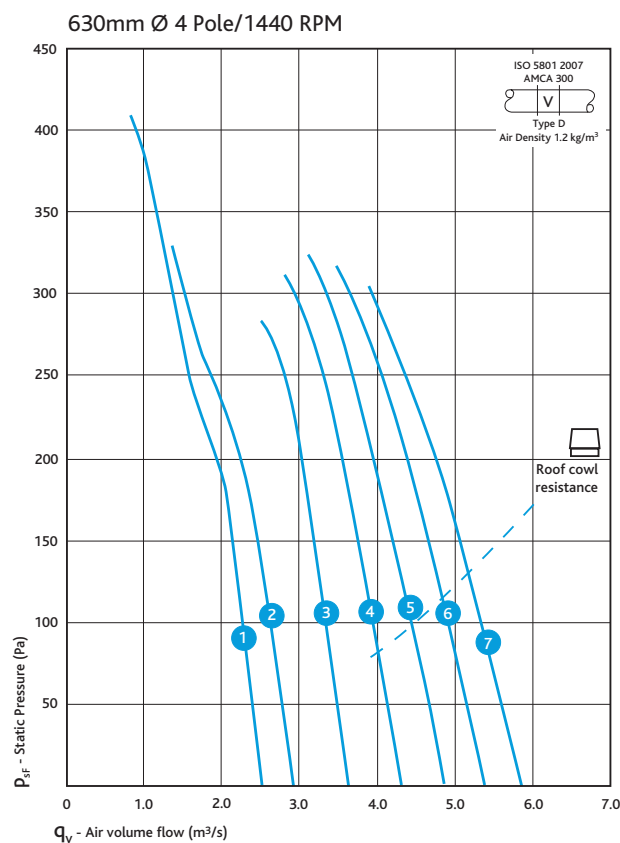
ELECTRICAL & SOUND

Curve No	Unit Code	Blade Angle°	Speed RPM	Unit kg	A.V. Set	Motor frame size	3 Phase (400V)			In-duct inlet sound power levels dB re 1pW							Breakout dBA @ 3m
							Motor kW	FLC amps	SC amps	Octave band mid frequency Hz							
										125	250	500	1K	2K	4K	8K	
560 Ø - 4 Pole/1440 rpm																	
1	AX56S-413A7	20°	1415	41	NAV39	80	0.75	2	9.8	74	72	80	79	77	74	73	55
2	AX56S-423A7	25°	1415	41	NAV39	80	0.75	2	9.8	75	73	81	80	78	75	74	55
3	AX56S-433A7	30°	1430	43	NAV39	90	1.1	2.5	14.3	78	76	82	81	78	75	73	56
4	AX56S-453A7	35°	1435	47	NAV40	90	1.5	3.4	19.7	80	79	83	80	76	72	68	56
5	AX56S-473A7	40°	1435	47	NAV40	90	1.5	3.4	19.7	85	84	84	80	76	72	67	55
6	AX56S-483A7	45°	1435	49	NAV40	90	1.8	4	24.4	83	87	83	81	77	74	68	55
7	AX56AA-473A7	45°	1435	49	NAV40	90	1.8	4	24.4	83	82	82	79	74	70	66	53
8	AX56X-483A7	50°	1435	44	NAV40	90	1.5	3.4	19.7	87	79	80	77	71	66	63	52
560 Ø - 2 Pole/2800rpm																	
9	AX56D-213A7	25°	2875	42	NAV39	90	1.8	3.6	31.3	83	79	88	91	89	87	86	66
10	AX56F-213A7	25°	2875	49	NAV40	100	3	5.8	53	86	82	89	89	90	88	87	65
11	AX56S-223A7	25°	2930	94	NAV44	132	7.5	14	118	90	89	97	96	94	91	89	70
12	AX56S-233A7	30°	2935	102	NAV44	132	9	16.6	146	97	93	99	97	92	89	84	70

Notes relating to the table: The electrical and sound information in the table is nominal. Breakout dBA@3m is spherical, free field. Start currents (sc.) are for DOL starting.

See page 360 for further details on ancillaries.

## PERFORMANCE - AXUS LONG CASED AXIAL UNITS - 630MM Ø (300°C FOR 2 HOURS)



**NOTE:** THE CURVES ABOVE ARE INDICATIVE OF THE RANGE, A MORE COMPREHENSIVE SELECTION IS AVAILABLE, PLEASE CONTACT NUAIRE TECHNICAL, OR OBTAIN A COPY OF OUR FAN SELECTOR PROGRAMME VIA OUR WEBSITE.

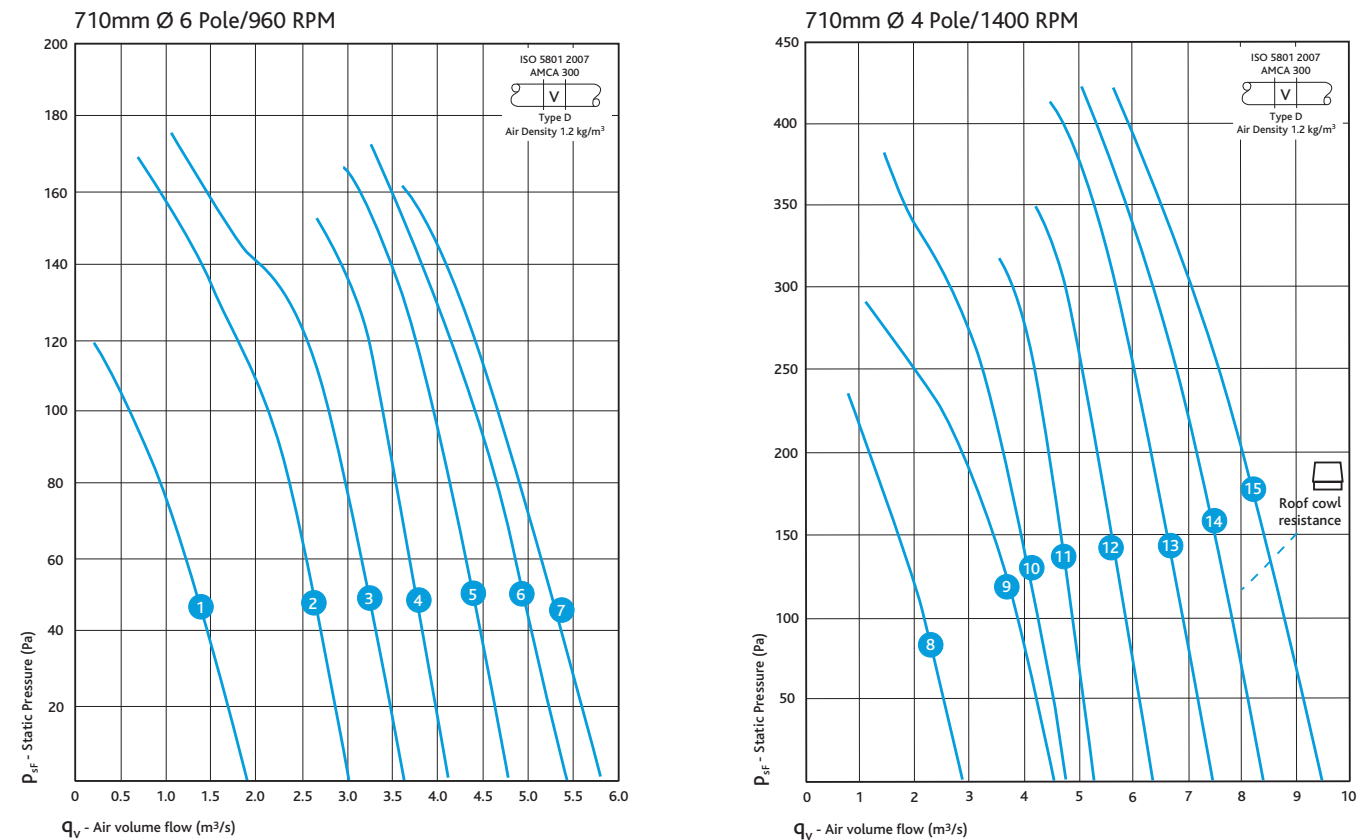
## ELECTRICAL &amp; SOUND

Curve No	Unit Code	Blade Angle°	Speed RPM	Unit kg	A.V. Set	Motor frame size	3 Phase (400V)			In-duct inlet sound power levels dB re 1pW								Breakout dBA @ 3m
							Motor kW	FLC amps	SC amps	Octave band mid frequency Hz								
										125	250	500	1K	2K	4K	8K		
630 Ø - 4 Pole/1440 rpm																		
1	AX63S-413A7	20°	1430	50	NAV40	90	1.1	2.5	14.3	85	85	83	81	78	76	68	56	
2	AX63S-423A7	25°	1430	50	NAV40	90	1.1	2.5	14.3	82	82	83	80	77	75	67	55	
3	AX63AD-423A7	30°	1435	56	NAV41	100	1.8	4	24.4	85	87	86	80	76	72	64	57	
4	AX63AD-443A7	35°	1435	59	NAV41	100	2.2	4.7	30.1	85	90	85	81	78	76	68	58	
5	AX63AD-473A7	45°	1435	61	NAV41	100	3	6.4	41	87	87	84	81	77	73	67	58	
6	AX63AD-483A7	50°	1455	65	NAV41	112	4	8.2	57	86	87	86	82	78	74	68	59	
7	AX63AA-483A7	50°	1455	63	NAV41	112	4	8.2	57	83	87	85	82	77	71	67	58	
630 Ø - 2 Pole/2800rpm																		
8	AX63P-213A7	20°	2915	81	NAV43	132	5.5	10.3	100	86	89	97	99	98	92	90	72	
9	AX63P-223A7	25°	2935	88	NAV43	132	9	16.6	146	94	93	102	101	98	93	90	74	
10	AX63AD-213A7	25°	2935	123	NAV46	160	11	19.9	183	92	92	100	99	96	92	93	73	
11	AX63AD-223A7	30°	2940	141	NAV46	160	15	27	265	95	94	105	98	95	91	91	75	
12	AX63AD-243A7	35°	2938	156	NAV47	180	22	39.9	319	97	97	107	100	95	92	91	77	

**Notes relating to the table:** The electrical and sound information in the table is **nominal**. Breakout dBA@3m is spherical, free field. Start currents (sc.) are for DOL starting.

See page 360 for further details on ancillaries.

PERFORMANCE - AXUS LONG CASED AXIAL UNITS - 710MM Ø (300°C FOR 2 HOURS)



NOTE: THE CURVES ABOVE ARE INDICATIVE OF THE RANGE, A MORE COMPREHENSIVE SELECTION IS AVAILABLE, PLEASE CONTACT NUAIRE TECHNICAL, OR OBTAIN A COPY OF OUR FAN SELECTOR PROGRAMME VIA OUR WEBSITE.

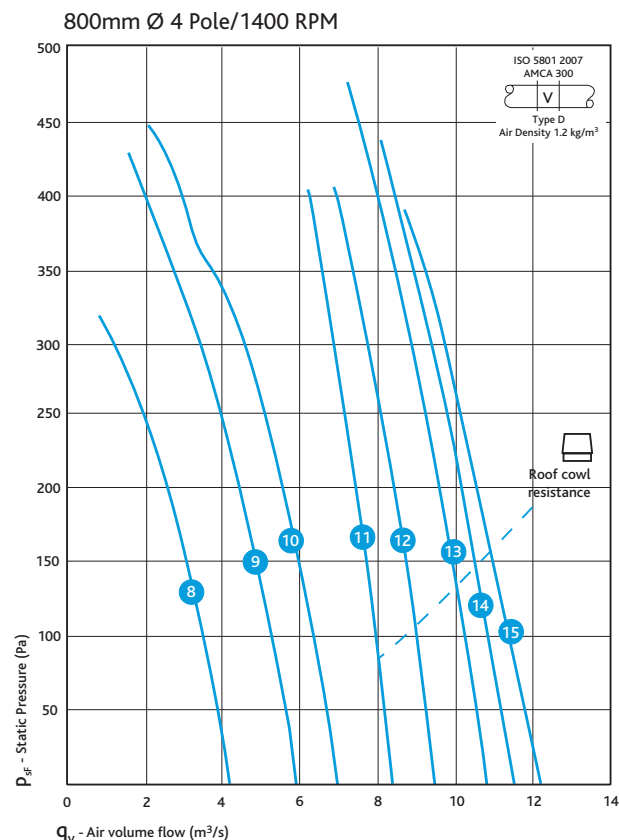
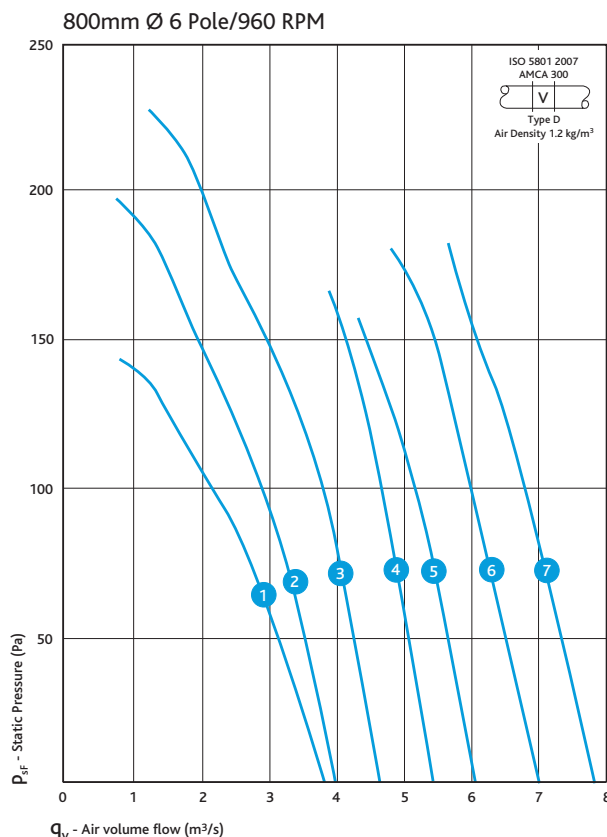
ELECTRICAL & SOUND

Curve No	Unit Code	Blade Angle°	Speed RPM	Unit kg	A.V. Set	Motor frame size	3 Phase (400V)			In-duct inlet sound power levels dB re 1pW							Breakout dBA @ 3m
							Motor kW	FLC amps	SC amps	Octave band mid frequency Hz							
										125	250	500	1K	2K	4K	8K	
710 Ø - 6 Pole/960 rpm																	
1	AX71O-613A7	20°	920	43	NAV39	90	0.55	1.75	8.1	78	79	76	76	72	66	57	49
2	AX71P-623A7	25°	920	45	NAV39	90	0.55	1.75	8.1	82	76	74	74	72	67	58	49
3	AX71AA-623A7	30°	920	47	NAV40	90	0.55	1.75	8.1	83	78	74	74	73	65	56	49
4	AX71AD-643A7	35°	920	57	NAV41	90	1.1	3.0	13.3	79	79	77	73	70	64	58	50
5	AX71AD-663A7	40°	920	61	NAV41	100	1.5	4	19.2	81	79	77	73	70	65	60	50
6	AX71AD-673A7	45°	920	61	NAV41	100	1.5	4	19.2	79	78	78	73	70	65	61	51
7	AX71AD-683A7	30°	960	66	NAV42	112	2.2	5.2	31.7	79	81	79	75	72	67	61	52
710 Ø - 4 Pole/1400 rpm																	
8	AX71O-413A7	20°	1415	44	NAV39	80	0.75	2	9.8	83	82	84	85	81	78	72	57
9	AX71O-423A7	25°	1430	45	NAV39	90	1.1	2.5	14.3	81	81	80	80	79	77	70	56
10	AX71P-423A7	25°	1435	48	NAV40	100	1.8	4	24.4	100	95	90	86	81	79	72	61
11	AX71AD-423A7	30°	1435	63	NAV41	100	3	6.4	41	83	92	88	86	83	81	72	60
12	AX71AA-463A7	40°	1455	64	NAV41	112	4	8.2	57	83	95	89	86	83	81	73	63
13	AX71AD-463A7	40°	1455	97	NAV44	132	5.5	10.8	81	86	91	86	83	80	75	69	60
14	AX71AD-473A7	45°	1455	97	NAV44	132	5.5	10.8	81	85	96	87	85	80	75	70	62
15	AX71AD-483A7	50°	1455	124	NAV46	132	7.5	14.5	107	86	94	90	87	84	80	76	64

Notes relating to the table: The electrical and sound information in the table is **nominal**. Breakout dBA@3m is spherical, free field. Start currents (sc.) are for DOL starting.

See page 360 for further details on ancillaries.

## PERFORMANCE - AXUS LONG CASED AXIAL UNITS - 800MM Ø (300°C FOR 2 HOURS)



**NOTE:** THE CURVES ABOVE ARE INDICATIVE OF THE RANGE, A MORE COMPREHENSIVE SELECTION IS AVAILABLE, PLEASE CONTACT NUAIRE TECHNICAL, OR OBTAIN A COPY OF OUR FAN SELECTOR PROGRAMME VIA OUR WEBSITE.

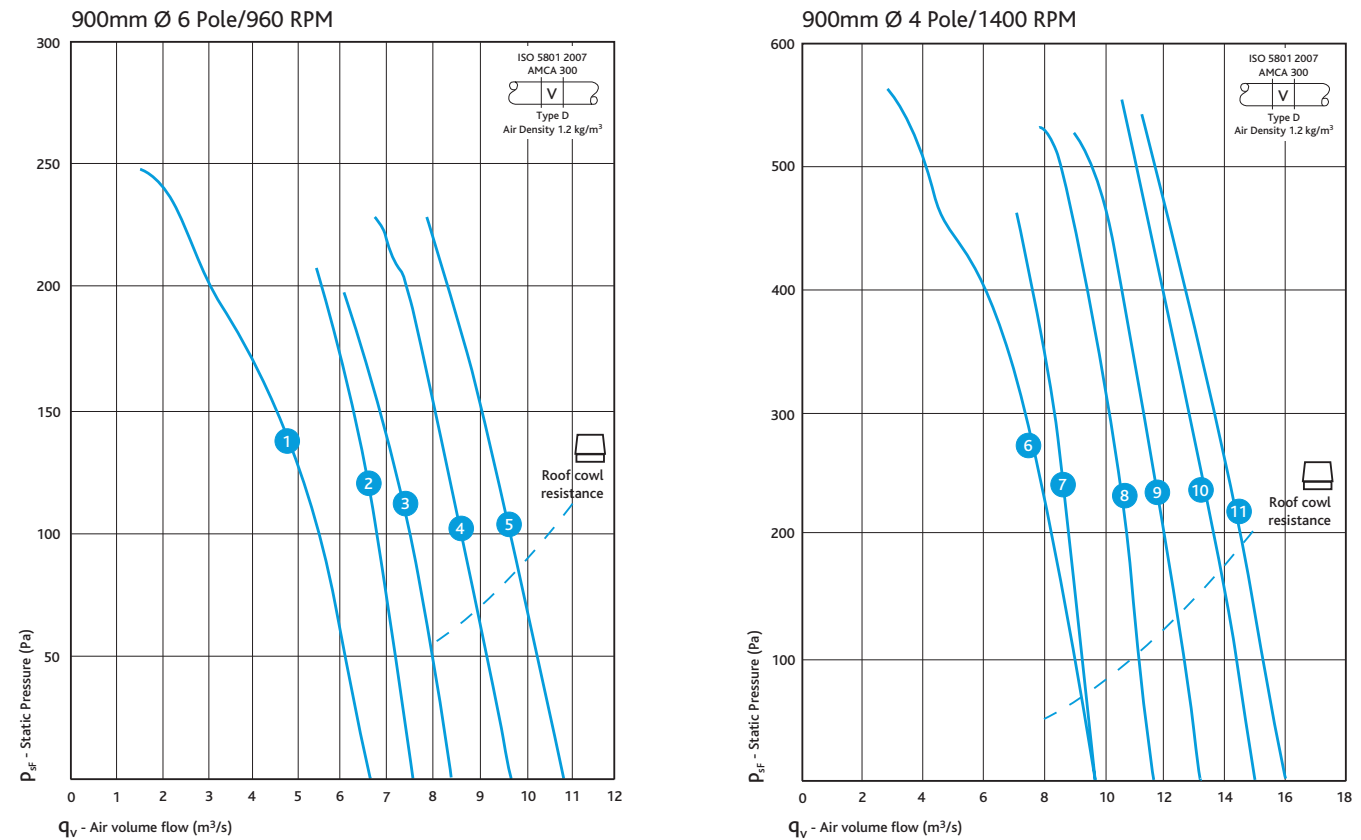
## ELECTRICAL &amp; SOUND

Curve No	Unit Code	Blade Angle°	Speed RPM	Unit kg	A.V. Set	Motor frame size	3 Phase (400V)			In-duct inlet sound power levels dB re 1pW								Breakout dBA @ 3m
							Motor kW	FLC amps	SC amps	Octave band mid frequency Hz								
										125	250	500	1K	2K	4K	8K		
800 Ø - 6 Pole/960 rpm																		
1	AX80O-623A7	25°	920	57	NAV41	90	0.55	1.75	8.1	80	76	76	77	75	71	60	50	
2	AX80P-623A7	25°	920	59	NAV41	90	0.55	1.75	8.1	82	75	77	76	75	71	60	50	
3	AX80AG-623A7	30°	920	87	NAV43	100	1.5	4	19.2	82	85	83	79	78	72	63	56	
4	AX80AG-643A7	35°	960	100	NAV44	112	2.2	5.2	31.7	80	86	81	79	78	74	66	55	
5	AX80AG-663A7	40°	960	100	NAV44	112	2.2	5.2	31.7	81	84	81	78	76	72	64	55	
6	AX80AG-673A7	45°	945	125	NAV46	132	3	7	39.2	84	86	83	79	76	71	66	58	
7	AX80AG-683A7	50°	945	135	NAV46	132	4	9.3	52	83	88	84	81	78	74	68	57	
800 Ø - 4 Pole/1440 rpm																		
8	AX80O-413A7	20°	1430	57	NAV41	90	1.1	2.5	14.3	83	84	86	91	88	82	76	62	
9	AX80P-423A7	25°	1435	63	NAV41	100	2.2	4.7	30.1	80	86	87	87	85	84	78	61	
10	AX80AA-423A7	30°	1435	69	NAV42	100	3	6.4	41	82	88	88	86	83	82	74	61	
11	AX80AG-443A7	35°	1455	134	NAV46	132	7.5	14.5	107	87	89	92	90	87	85	79	64	
12	AX80AG-463A7	40°	1455	149	NAV46	160	11	21.2	163	89	94	94	89	86	84	78	64	
13	AX80AG-473A7	45°	1455	149	NAV46	160	11	21.2	163	91	93	93	89	85	82	77	66	
14	AX80AG-483A7	50°	1456	159	NAV47	160	15	28.8	202	93	93	96	91	89	85	82	68	
15	AX80AD-483A7	50°	1455	145	NAV46	160	11	21.2	163	88	96	92	89	87	84	81	65	

**Notes relating to the table:** The electrical and sound information in the table is **nominal**. Breakout dBA@3m is spherical, free field. Start currents (sc.) are for DOL starting.

See page 360 for further details on ancillaries.

PERFORMANCE - AXUS LONG CASED AXIAL UNITS - 900MM Ø (300°C FOR 2 HOURS)



NOTE: THE CURVES ABOVE ARE INDICATIVE OF THE RANGE, A MORE COMPREHENSIVE SELECTION IS AVAILABLE, PLEASE CONTACT NUAIRE TECHNICAL, OR OBTAIN A COPY OF OUR FAN SELECTOR PROGRAMME VIA OUR WEBSITE.

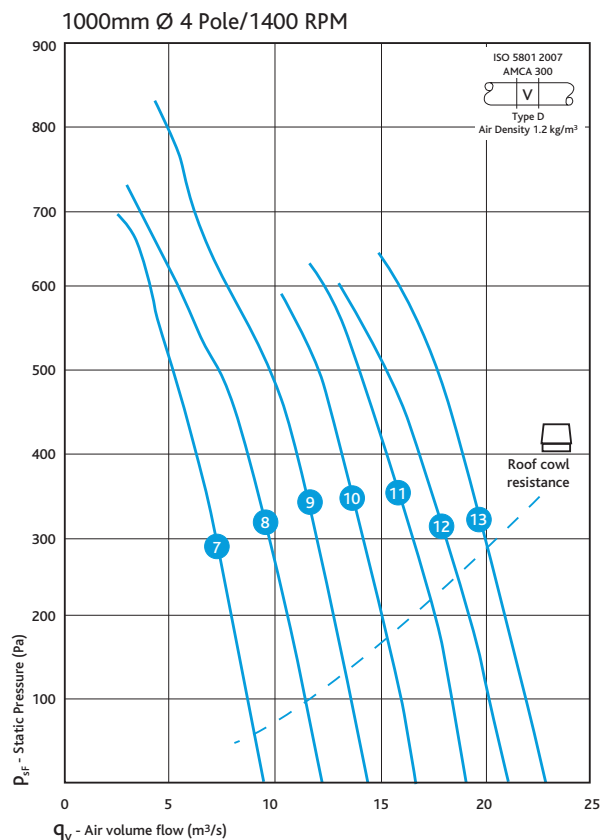
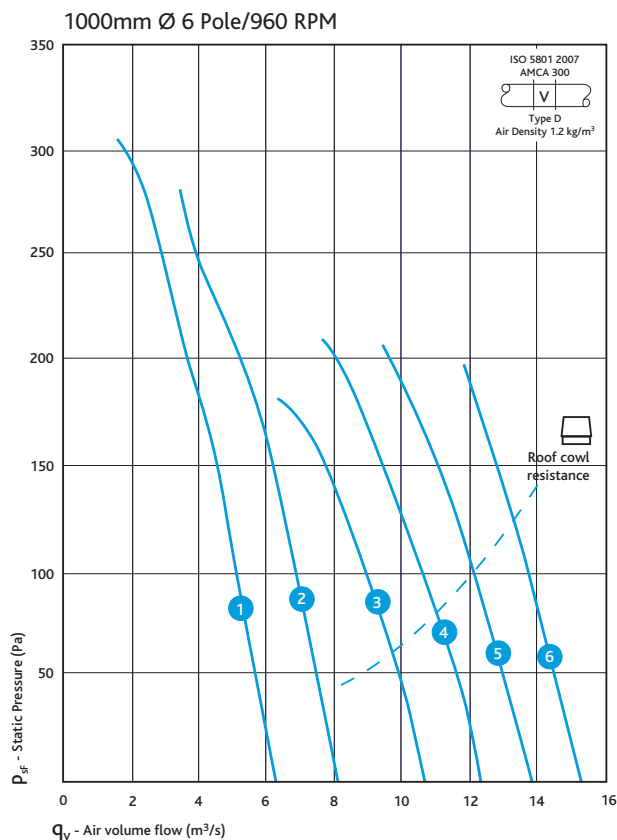
ELECTRICAL & SOUND

Curve No	Unit Code	Blade Angle°	Speed RPM	Unit kg	A.V. Set	Motor frame size	3 Phase (400V)			In-duct inlet sound power levels dB re 1pW								Breakout dBA @ 3m
							Motor kW	FLC amps	SC amps	Octave band mid frequency Hz								
										125	250	500	1K	2K	4K	8K		
900 Ø - 6 Pole/960 rpm																		
1	AX90AA-623A7	30°	920	102	NAV44	100	1.5	4	19.2	85	82	80	79	79	74	61	54	
2	AX90AG-643A7	35°	945	144	NAV46	132	4	9.3	52	83	90	85	83	82	78	69	60	
3	AX90AG-663A7	40°	945	144	NAV46	132	4	9.3	52	84	88	84	81	80	75	68	58	
4	AX90AG-673A7	45°	950	149	NAV46	132	5.5	12.7	72	88	90	87	83	79	75	69	62	
5	AX90AG-683A7	50°	970	174	NAV47	160	7.5	16.1	76	87	92	88	85	82	78	72	61	
900 Ø - 4 Pole/1440 rpm																		
6	AX90AA-423A7	30°	1455	120	NAV45	132	5.5	10.8	81	85	92	92	90	86	85	78	71	
7	AX90AG-423A7	30°	1455	163	NAV47	160	11	21.2	163	90	94	96	92	89	89	81	69	
8	AX90AG-443A7	35°	1456	173	NAV47	160	15	28.8	202	90	93	96	93	90	89	82	69	
9	AX90AG-463A7	40°	1456	187	NAV47	180	18.5	35.2	268	92	97	97	93	90	88	82	69	
10	AX90AG-473A7	45°	1456	203	NAV47	180	22	41.7	329	94	96	97	93	89	85	81	70	
11	AX90AG-483A7	50°	1450	256	NAV48	200	30	56.3	372	97	97	99	95	92	88	85	71	

Notes relating to the table: The electrical and sound information in the table is nominal. Breakout dBA@3m is spherical, free field. Start currents (sc.) are for DOL starting.

See page 360 for further details on ancillaries.

## PERFORMANCE - AXUS LONG CASED AXIAL UNITS - 1000MM Ø (300°C FOR 2 HOURS)



**NOTE:** THE CURVES ABOVE ARE INDICATIVE OF THE RANGE, A MORE COMPREHENSIVE SELECTION IS AVAILABLE, PLEASE CONTACT NUAIRE TECHNICAL, OR OBTAIN A COPY OF OUR FAN SELECTOR PROGRAMME VIA OUR WEBSITE.

## ELECTRICAL &amp; SOUND

Curve No	Unit Code	Blade Angle°	Speed RPM	Unit kg	A.V. Set	Motor frame size	3 Phase (400V)			In-duct inlet sound power levels dB re 1pW								Breakout dBA @ 3m
							Motor kW	FLC amps	SC amps	Octave band mid frequency Hz								
										125	250	500	1K	2K	4K	8K		
1000 Ø - 6 Pole/960 rpm																		
1	AX100AD-613A7	25°	960	115	NAV45	112	2.2	5.2	31.7	83	89	94	93	85	81	67	64	
2	AX100AD-623A7	30°	945	127	NAV46	132	3	7	39.2	93	88	95	95	89	83	73	66	
3	AX100CX-623A7	30°	950	161	NAV47	132	5.5	12.7	72	100	94	89	82	77	74	67	63	
4	AX100CX-643A7	35°	970	190	NAV47	160	7.5	16.1	76	94	89	85	80	76	77	71	60	
5	AX100CX-663A7	40°	970	214	NAV47	160	11	23.3	107	95	90	87	82	78	79	74	61	
6	AX100CX-673A7	45°	970	214	NAV47	160	11	23.3	107	100	91	86	83	79	78	75	62	
1000 Ø - 4 Pole/1440 rpm																		
7	AX100AD-413A7	25°	1455	103	NAV44	132	5.5	10.8	81	84	97	94	100	96	91	86	71	
8	AX100AD-423A7	25°	1455	129	NAV46	160	11	21.2	163	96	98	103	103	98	92	87	74	
9	AX100CX-413A7	30°	1455	179	NAV47	160	11	21.2	163	97	96	97	93	89	88	81	69	
10	AX100CX-423A7	35°	1456	187	NAV47	160	15	28.8	202	102	98	97	94	90	88	83	70	
11	AX100CX-443A7	35°	1456	221	NAV47	180	22	41.7	329	100	100	98	95	91	90	87	71	
12	AX100CX-463A7	40°	1460	319	NAV49	200	30	56	372	101	101	100	97	93	92	89	73	
13	AX100CX-473A7	45°	1468	359	NAV49	225	37	69	433	103	101	100	98	95	95	93	73	

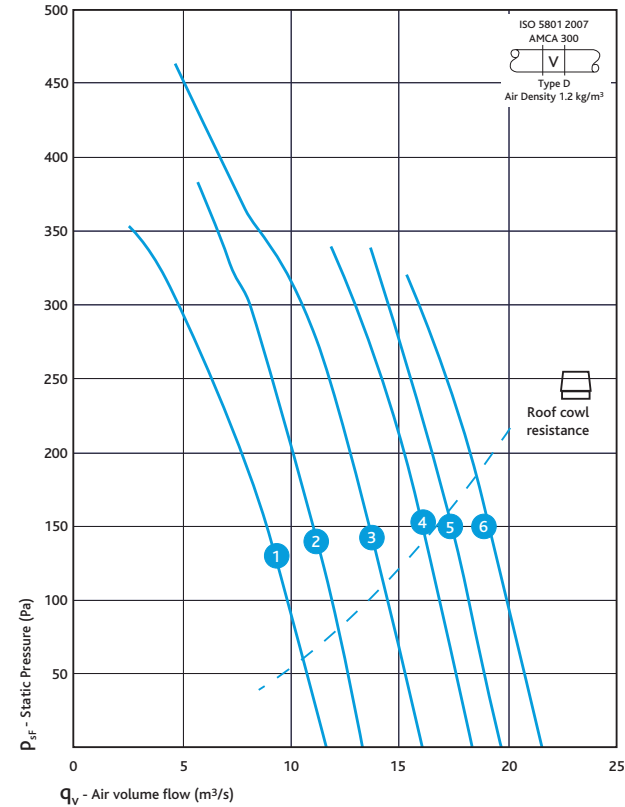
**Notes relating to the table:** The electrical and sound information in the table is **nominal**. Breakout dBA@3m is spherical, free field. Start currents (sc.) are for DOL starting.

See page 360 for further details on ancillaries.

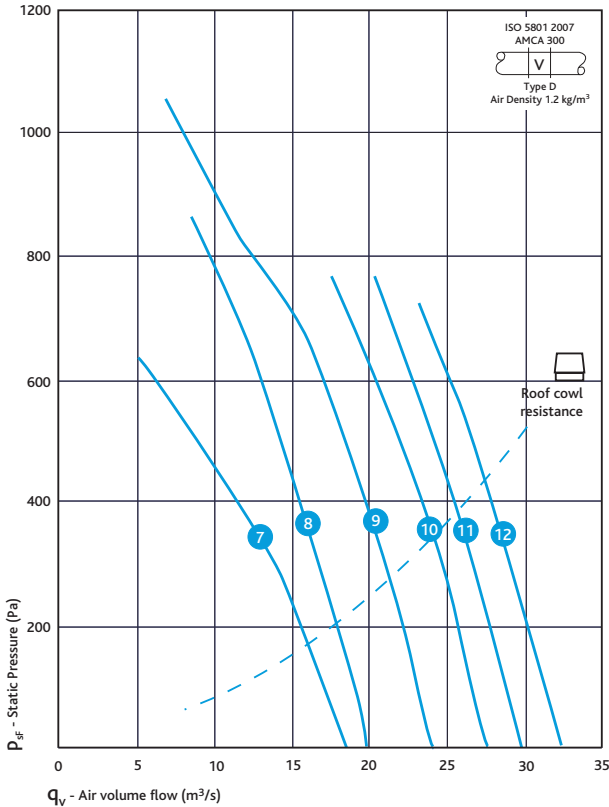


PERFORMANCE - AXUS LONG CASED AXIAL UNITS - 1120MM Ø (300°C FOR 2 HOURS)

1120mm Ø 6 Pole/960 RPM



1120mm Ø 4 Pole/1400 RPM



**NOTE:** THE CURVES ABOVE ARE INDICATIVE OF THE RANGE, A MORE COMPREHENSIVE SELECTION IS AVAILABLE, PLEASE CONTACT NUAIRE TECHNICAL, OR OBTAIN A COPY OF OUR FAN SELECTOR PROGRAMME VIA OUR WEBSITE.

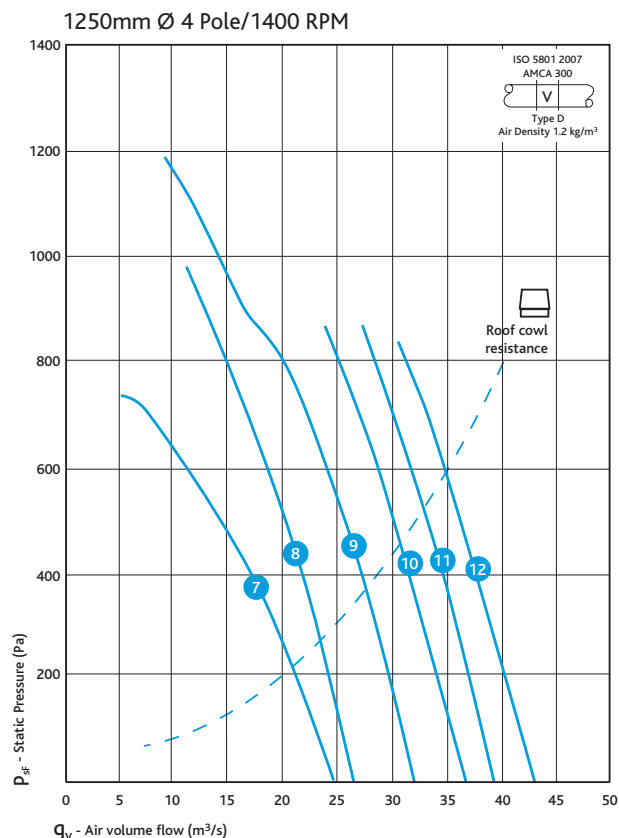
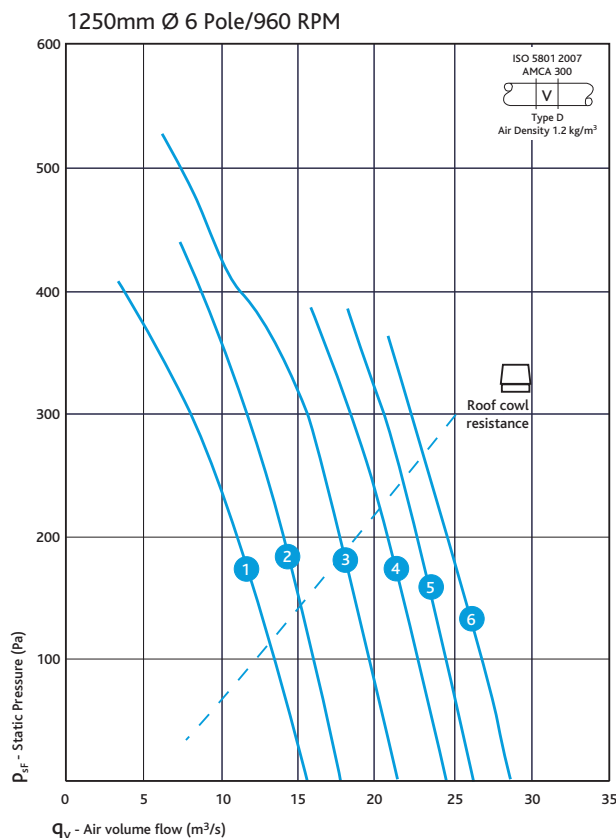
ELECTRICAL & SOUND

Curve No	Unit Code	Blade Angle <sup>o</sup>	Speed RPM	Unit kg	A.V. Set	Motor frame size	3 Phase (400V)			In-duct inlet sound power levels dB re 1pW							Breakout dBA @ 3m
							Motor kW	FLC amps	SC amps	Octave band mid frequency Hz							
							125	250	500	1K	2K	4K	8K				
1120 Ø - 6 Pole/960 rpm																	
1	AX112CW-613A7	25 <sup>o</sup>	945	196	NAV47	132	3	7	43	91	95	94	95	88	83	74	69
2	AX112CX-613A7	25 <sup>o</sup>	950	212	NAV47	132	5.5	12.7	72	94	93	88	85	81	80	82	67
3	AX112CX-623A7	30 <sup>o</sup>	970	228	NAV47	160	7.5	16.1	76	98	94	89	86	83	80	79	68
4	AX112CX-643A7	35 <sup>o</sup>	970	252	NAV48	160	11	23.3	107	99	96	91	87	85	83	79	69
5	AX112CX-663A7	40 <sup>o</sup>	970	252	NAV48	160	11	23.3	107	101	98	94	89	87	86	83	72
6	AX112CX-673A7	45 <sup>o</sup>	970	293	NAV48	180	15	30.1	205	104	100	95	91	89	88	86	73
1120 Ø - 4 Pole/1440 rpm																	
7	AX112CW-413A7	25 <sup>o</sup>	1455	222	NAV47	160	11	21.2	163	95	101	105	104	98	92	85	77
8	AX112CX-413A7	25 <sup>o</sup>	1455	233	NAV47	160	15	28.8	202	98	99	99	94	92	88	93	75
9	AX112CX-423A7	30 <sup>o</sup>	1455	270	NAV48	180	22	41.7	329	102	100	100	95	94	89	90	76
10	AX112CX-443A7	35 <sup>o</sup>	1460	323	NAV49	200	30	56.3	372	103	102	102	96	95	92	90	77
11	AX112CX-463A7	40 <sup>o</sup>	1470	369	NAV49	225	37	69	433	105	104	105	98	98	95	94	80
12	AX112CX-473A7	45 <sup>o</sup>	1480	531	NAV51	250	55	101	707	108	106	106	100	100	97	97	81

**Notes relating to the table:** The electrical and sound information in the table is **nominal**. Breakout dBA@3m is spherical, free field. Start currents (sc.) are for DOL starting.

See page 360 for further details on ancillaries.

## PERFORMANCE - AXUS LONG CASED AXIAL UNITS - 1250MM Ø (300°C FOR 2 HOURS)



**NOTE:** THE CURVES ABOVE ARE INDICATIVE OF THE RANGE, A MORE COMPREHENSIVE SELECTION IS AVAILABLE, PLEASE CONTACT NUAIRE TECHNICAL, OR OBTAIN A COPY OF OUR FAN SELECTOR PROGRAMME VIA OUR WEBSITE.

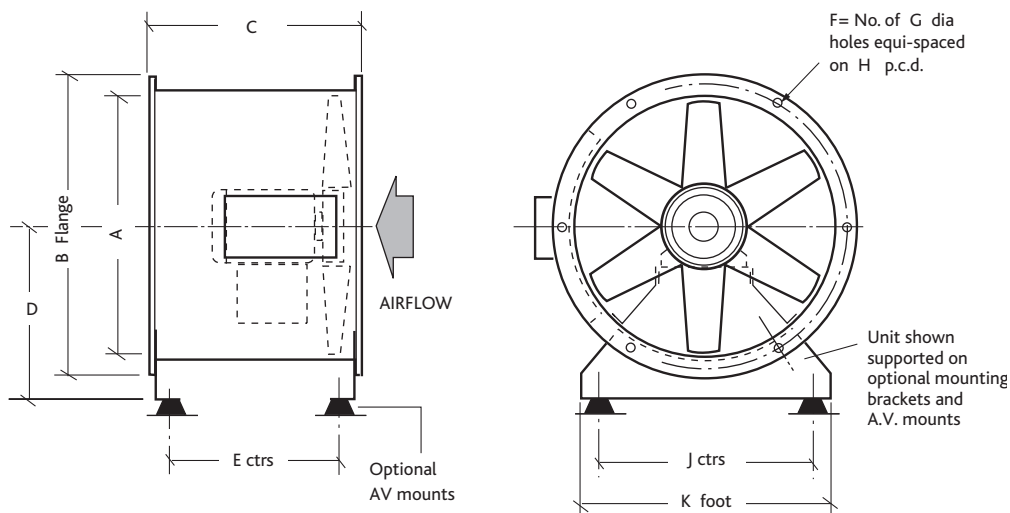
## ELECTRICAL &amp; SOUND

Curve No	Unit Code	Blade Angle <sup>o</sup>	Speed RPM	Unit kg	A.V. Set	Motor frame size	3 Phase (400V)			In-duct inlet sound power levels dB re 1pW								Breakout dBA @ 3m
							Motor kW	FLC amps	SC amps	Octave band mid frequency Hz								
										125	250	500	1K	2K	4K	8K		
1250 Ø - 6 Pole/960 rpm																		
1	AX125CW-613A7	25 <sup>o</sup>	945	245	NAV48	132	4	9.3	52	95	99	100	99	9487	80	73	73	
2	AX125CX-613A7	25 <sup>o</sup>	970	257	NAV48	160	7.5	16.1	76	95	96	91	88	84	83	85	70	
3	AX125CX-623A7	30 <sup>o</sup>	970	281	NAV48	160	11	23.3	107	99	97	92	89	86	83	82	71	
4	AX125CX-643A7	35 <sup>o</sup>	970	311	NAV48	180	15	30.1	205	100	99	94	90	88	86	82	72	
5	AX125CX-663A7	40 <sup>o</sup>	970	347	NAV49	200	18.5	37	237	102	101	97	92	90	89	86	75	
6	AX125CX-673A7	45 <sup>o</sup>	970	377	NAV49	200	22	43.6	262	105	103	98	94	92	91	89	76	
1250 Ø - 4 Pole/1440 rpm																		
7	AX125CW-413A7	25 <sup>o</sup>	1460	245	NAV48	160	15	28.8	202	99	105	109	108	102	96	89	81	
8	AX125CX-413A7	25 <sup>o</sup>	1460	289	NAV48	180	22	41.7	329	99	102	100	97	93	91	94	78	
9	AX125CX-423A7	30 <sup>o</sup>	1460	353	NAV49	200	30	56	372	103	103	101	98	95	92	91	79	
10	AX125CX-443A7	35 <sup>o</sup>	1470	423	NAV50	225	45	83	525	104	105	103	99	96	95	91	80	
11	AX125CX-463A7	40 <sup>o</sup>	1480	619	NAV53	250	55	101	707	106	107	106	101	99	98	95	83	
12	AX125CX-473A7	45 <sup>o</sup>	1480	724	NAV54	280	75	137	986	109	109	107	103	101	100	98	84	

**Notes relating to the table:** The electrical and sound information in the table is **nominal**. Breakout dBA@3m is spherical, free field. Start currents (sc.) are for DOL starting.

See page 360 for further details on ancillaries.

DIMENSIONS






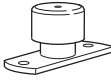





DIMENSIONS (mm) & WEIGHTS

Code	Frame	A	B	C	D	E	F	G	H	J	K	Max. Weight Kg
AX31	80	315	400	365	210	270	8	12	355	220	270	23
AX35	90	350	430	380	240	270	8	12	395	250	300	26
AX40	90-100	400	490	440	270	370	8	12	450	290	340	44
AX45	90-112	450	540	450	300	360	8	12	500	330	380	65
AX45	132	450	540	600	300	520	8	12	500	330	380	65
AX50	90-112	500	608	465	340	360	12	12	560	380	430	88
AX50	132	500	608	615	340	520	12	12	560	380	430	88
AX56	90-100	560	670	440	370	360	12	12	620	420	470	104
AX56	132	560	670	615	370	520	12	12	620	420	470	104
AX63	90-112	630	740	480	430	360	12	12	690	500	550	209
AX63	132-180	630	740	600	430	520	12	12	690	500	550	209
AX63	160-180	630	740	800	430	300	12	12	690	500	550	209
AX71	80-112	710	814	455	470	360	16	12	770	540	600	124
AX71	132	710	814	700	470	620	16	12	770	540	600	124
AX80	90-112	800	910	440	540	360	16	12	860	590	650	142
AX80	132-160	800	910	840	540	620	16	12	860	590	650	142
AX90	112-180	900	1016	740	600	660	16	15	970	670	750	203
AX100	112-180	1000	1128	740	670	630	16	15	1070	770	850	324
AX100	200	1000	1128	850		740	16	15	1070	770	850	324
AX112	132-160	1120	1240	730	750	620	20	15	1190	870	950	551
AX112	180-200	1120	1240	865	750	755	20	15	1190	870	950	551
AX112	225-250	1120	1240	1010	750	900	20	15	1190	870	950	551
AX125	132-200	1250	1365	865	830	755	20	15	1320	920	1000	729
AX125	225-280	1250	1365	1010	830	900	20	15	1320	920	1000	729

Please call Nuaire on (029) 2085 8200 if you require further details.  
See page 360 for further details on ancillaries.

## ANCILLARIES

### AXUS HIGH TEMPERATURE AXIAL FANS

Ancillary	Code (mm)	AX31 315	AX35 350	AX40 400	AX45 450	AX50 500	AX56 560	AX63 630	AX71 710	AX80 800	AX90 900	AX100 1000	AX112 1120	AX125 1250
	Description													
<b>Mounting Brackets</b> 	Mounting brackets supplied as pair. manufactured from heavy gauge steel.	CMB31	CMB35	CMB40	CMB45	CMB50	CMB56	CMB63	CMB71	CMB80	CMB90	CMB100	CMB112	CMB125
<b>Matching Flange</b> 	Flange supplied as single. Manufactured from galvanised steel.	CMF31	CMF35	CMF40	CMF45	CMF50	CMF56	CMF63	CMF71	CMF80	CMF90	CMF100	CMF112	CMF125
<b>Flexible Connector</b> 	Circular without flange. Flexible duct material is flameproof and heat resistant up to 132°C. The material is airtight and waterproof.	CFCH31	CFCH35	CFCH40	CFCH45	CFCH50	CFCH56	CFCH63	CFCH71	CFCH80	CFCH90	CFCH100	CFCH112	CFCH125
<b>Anti-vibration Mounts</b> 	Resilient rubber, for fan only.	For further details on AV Mounts please contact Nuaire												
<b>Attenuator</b> 	Standard, Long, podded & long podded options. CA31LP	CA31S CA31L CA31P CA35LP	CA35S CA35L CA35P CA40LP	CA40S CA40L CA40P CA45LP	CA45S CA45L CA45P CA50LP	CA50S CA50L CA50P CA56LP	CA56S CA56L CA56P CA63LP	CA63S CA63L CA63P CA71LP	CA71S CA71L CA71P CA80LP	CA80S CA80L CA80P CA90LP	CA90S CA90L CA90P CA100LP	CA100S CA100L CA100P CA112LP	CA112S CA112L CA112P CA125LP	CA125S CA125L CA125P
<b>Guard</b> 	Manufactured in heavy gauge galvanised steel with acid zinc plated steel mesh.	CDG31	CDG35	CDG40	CDG45	CDG50	CDG56	CDG63	CDG71	CDG80	CDG90	CDG100	CDG112	CDG125
<b>Inlet Cone</b> 	manufactured in heavy gauge galvanised steel with a single bolted flange.	CIC31	CIC35	CIC40	CIC45	CIC50	CIC56	CIC63	CIC71	CIC80	CIC90	CIC100	CIC112	CIC125
<b>Backdraft Damper</b> 	Gravity operated damper manufactured from heavy gauge galvanised steel with pair of bolted flanges.	CBD31	CBD35	CBD40	CBD45	CBD50	CBD56	CBD63	CBD71	CBD80	CBD90	CBD100	CBD112	CBD125
<b>Roof Cowl</b> 	Manufactured from Aluzinc designed to use with high temperature Axial Fans.	-	-	ARC56	ARC56	ARC71	ARC71	ARC71	ARC100	ARC100	ARC125	ARC125	ARC125	ARC125

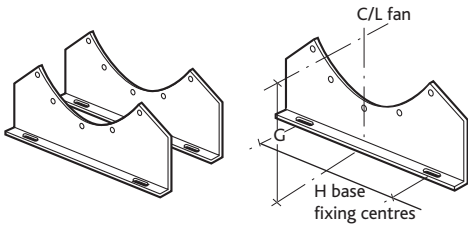
See page 360 for further details on ancillaries.

ANCILLARIES FOR AXIAL FANS - DETAILS

Mounting Brackets

The AXUS mounting brackets are manufactured from heavy gauge galvanised steel and are supplied in pairs.

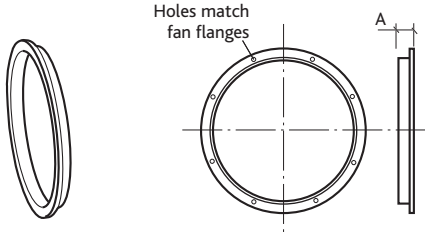
**Typical Code: CMB100** (100 = fan diameter in cm).



Matching Flange (Single)

Manufactured from galvanised steel matching flanges are supplied individually.

**Typical code: CMF100** (100 = fan diameter in cm).

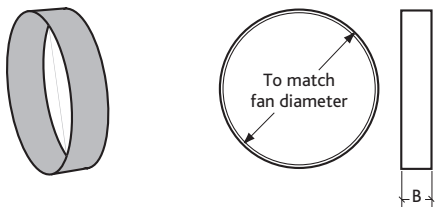


Flexible Connector (Single)

Circular without flanges. Flexible duct material is flameproof and resistant to heat up to 132°C/400°C, chemicals, ozone, oil and grease. The material is airtight, waterproof and tested to BS476 Part 7.

(Supplied complete with fixing straps).

**CFCH100** (100 = fan diameter in cm) - 400°C.



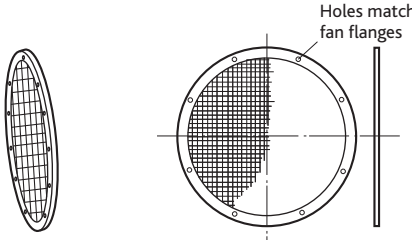
Guard (Single)

Manufactured from heavy gauge galvanised steel and acid zinc plated steel mesh.

Flat type • Finger guard 0.75.

**Typical Code: CGD100** (100 = fan diameter in cm)

Pressure Drop (Pa) = 0.6 x k x Velocity (m/s).



Inlet Cone (Single)

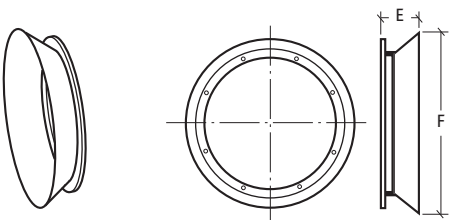
Manufactured in heavy gauge galvanised steel with a single bolted flange.

Standard Accessory Losses (k).

Low loss • inlet cone 0.38.

**Typical Code: CIC100** (100 = fan diameter in cm)

Pressure Drop (Pa) = 0.6 x k x Velocity (m/s).



Backdraught Damper (Single)

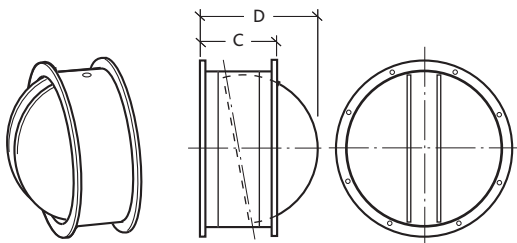
Gravity operated backdraught damper, manufactured from heavy gauge galvanised steel with a pair of bolted flanges.

Standard Accessory Losses (k) (Air stream operated) 0.4

**Typical Code: CBD100** (100 = fan diameter in cm) - 132°C

(For horizontal mounting only).

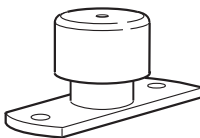
Pressure Drop (Pa) = 0.6 x k x Velocity (m/s).



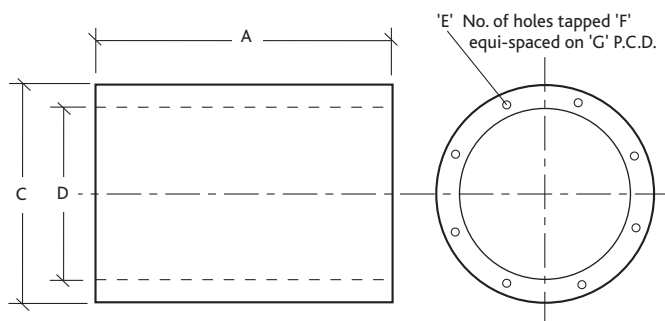
AV Mounts Spring Type

Supplied as a set of 4.

**Typical Code: NAV49**



### In-line Circular Attenuators



Attenuators shall be rigidly constructed from galvanised steel, internally lined with sound absorbing material not less than 100mm thick retained by galvanised steel perforated sheet.

Attenuator 'end faces' shall be drilled and tapped to match the flange details of the associated fan. Attenuator 'sound absorbing material' shall be chemically inert, non combustible, non-hygroscopic and vermin resistant.

Attenuator shall be tested in accordance with BS4718 :1971 ASTM E 477.

All attenuators shall be suitable for internal and external use at any installed angle.

**Standard - Typical code:** CA100S.

**Long - Typical code:** CA100L

For podded silencer information please refer to Axial section.

### Standard Un-podded

#### PERFORMANCE, DIMENSIONS (mm) & WEIGHTS

Dia.	Unit Code	Type	Dynamic Attenuation								Dimensions & Weights						Weight Kg
			Octave band mid frequency (Hz)								A	C	D	E	F	G	
315mm	CA31S	Standard Un-podded	-1	-2	-4	-7	-9	-7	-5		315	515	315	8	M8	355	8.0
350mm	CA35S	Standard Un-podded	-1	-2	-4	-7	-9	-7	-5		355	555	355	8	M8	395	11.0
400mm	CA40S	Standard Un-podded	-2	-3	-5	-7	-9	-6	-5		400	600	400	8	M10	450	16.0
450mm	CA45S	Standard Un-podded	-2	-3	-6	-7	-8	-6	-5		450	650	450	8	M10	500	20.0
500mm	CA50S	Standard Un-podded	-2	-3	-6	-8	-8	-6	-4		500	700	500	12	M10	560	23.0
560mm	CA56S	Standard Un-podded	-2	-4	-7	-8	-8	-5	-4		560	760	560	12	M10	620	25.0
630mm	CA63S	Standard Un-podded	-2	-4	-8	-9	-8	-5	-4		630	830	630	12	M10	690	30.0
710mm	CA71S	Standard Un-podded	-3	-5	-8	-9	-7	-5	-4		710	910	710	16	M10	770	34.0
800mm	CA80S	Standard Un-podded	-3	-5	-9	-8	-7	-4	-3		800	1000	800	16	M10	860	73.0
900mm	CA90S	Standard Un-podded	-3	-6	-9	-8	-6	-4	-2		900	1100	900	16	M12	970	92.0
1000mm	CA100S	Standard Un-podded	-3	-6	-9	-8	-6	-4	-2		1000	1200	1000	16	M12	1070	111.0
1120mm	CA112S	Standard Un-podded	-4	-6	-9	-7	-6	-3	-2		1120	1320	1120	20	M12	1190	143.0
1250mm	CA125S	Standard Un-podded	-4	-7	-9	-7	-5	-3	-2		1250	1450	1250	20	M12	1320	188.0

Note: Pressure drop negligible.

### Long Un-podded

#### PERFORMANCE, DIMENSIONS (mm) & WEIGHTS

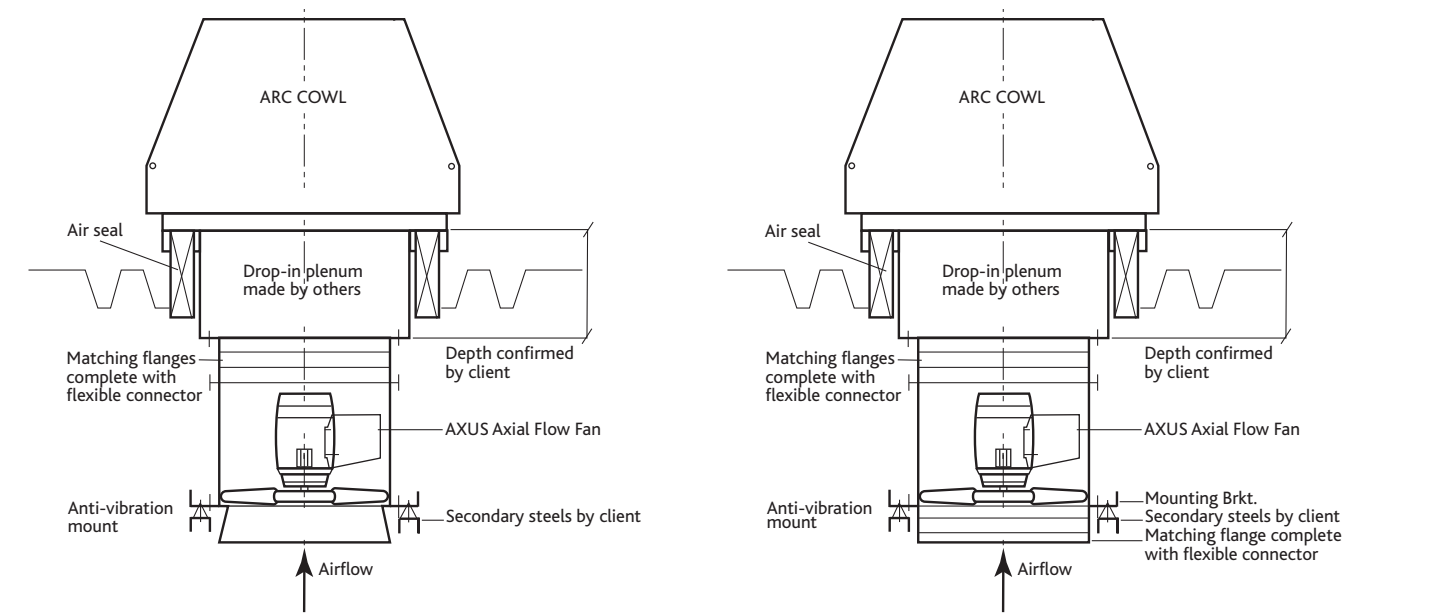
Dia.	Unit Code	Type	Dynamic Attenuation								Dimensions & Weights						Weight Kg
			Octave band mid frequency (Hz)								A	C	D	E	F	G	
315mm	CA31L	Long - Un-podded	-2	-3	-6	-12	-15	-13	-9		630	515	315	8	M8	355	15.0
350mm	CA35L	Long - Un-podded	-2	-3	-6	-12	-15	-12	-8		710	555	355	8	M8	395	21.0
400mm	CA40L	Long - Un-podded	-3	-3	-7	-13	-14	-12	-8		800	600	400	8	M10	450	30.0
450mm	CA45L	Long - Un-podded	-3	-4	-8	-13	-14	-11	-7		900	650	450	8	M10	500	38.0
500mm	CA50L	Long - Un-podded	-3	-4	-10	-14	-13	-10	-7		1000	700	500	12	M10	560	42.0
560mm	CA56L	Long - Un-podded	-3	-5	-12	-14	-13	-10	-7		1120	760	560	12	M10	620	47.0
630mm	CA63L	Long - Un-podded	-3	-6	-13	-15	-13	-9	-6		1260	830	630	12	M10	690	56.0
710mm	CA71L	Long - Un-podded	-4	-6	-13	-15	-12	-9	-6		1420	910	710	16	M10	770	63.0
800mm	CA80L	Long - Un-podded	-4	-8	-14	-14	-11	-8	-5		1600	1000	800	16	M10	860	133.0
900mm	CA90L	Long - Un-podded	-5	-10	-15	-14	-10	-6	-3		1800	1100	900	16	M12	970	166.0
1000mm	CA100L	Long - Un-podded	-6	-11	-15	-14	-10	-6	-3		2000	1200	1000	16	M12	1070	203.0
1120mm	CA112L	Long - Un-podded	-6	-11	-15	-13	-10	-6	-3		2240	1320	1120	20	M12	1190	261.0
1250mm	CA125L	Long - Un-podded	-6	-12	-15	-12	-9	-5	-3		2500	1450	1250	20	M12	1320	343.0

Note: Pressure drop negligible.

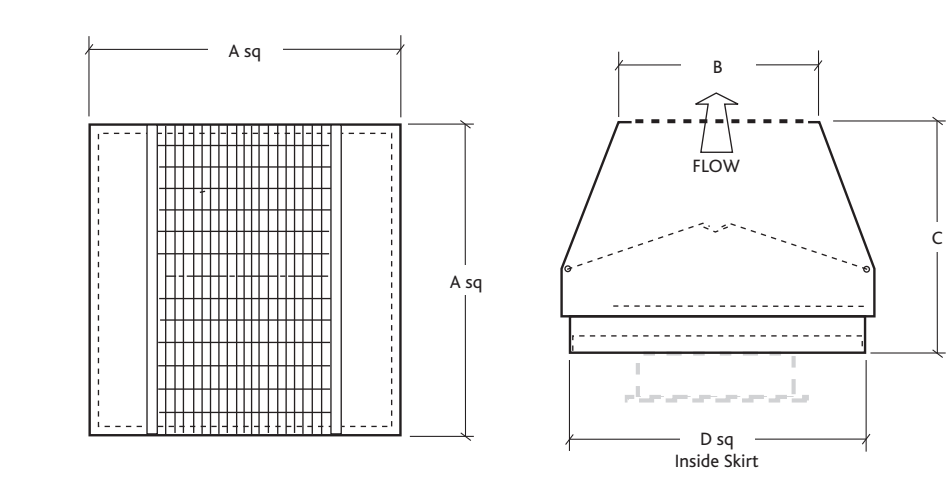


ANCILLARIES FOR AXIAL FANS - DETAILS CONT.

Vertical Discharge Cowl



VERTICAL DISCHARGE COWL - DIMENSIONS



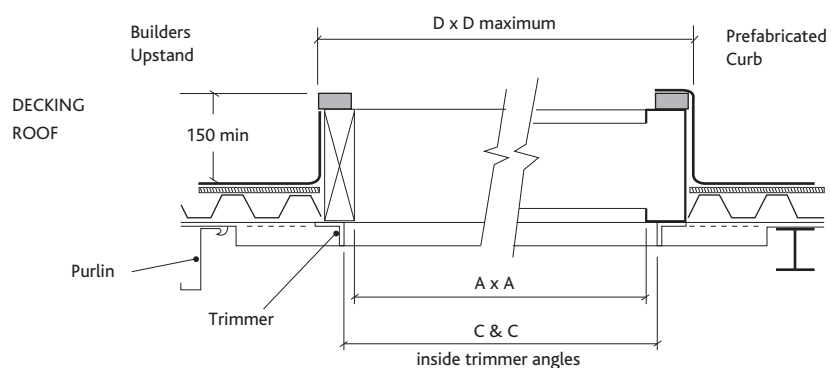
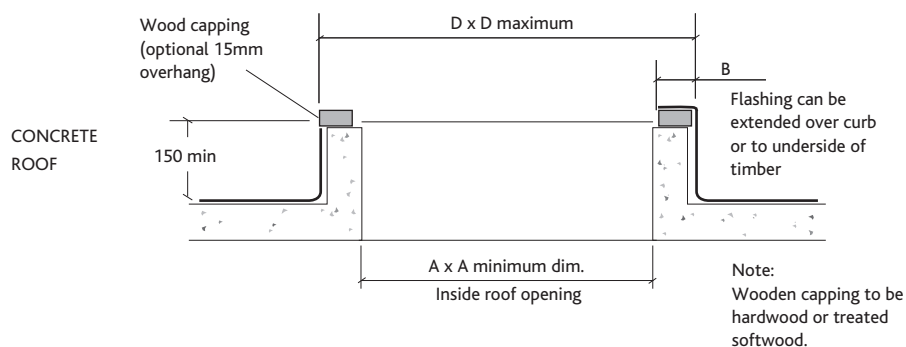
DIMENSIONS (mm) & WEIGHTS					
Code	A	B	C	D	Max Weight Kg
ARC56	845	570	535	786	22
ARC71	1100	770	760	1045	37
ARC100	1295	1000	880	1234	79
ARC125	1795	1300	1160	1738	213

For further assistance, please contact Nuaire Technical on (029) 2085 8200.  
Fans and Cowls are supplied separately.

## CURB DIMENSIONS

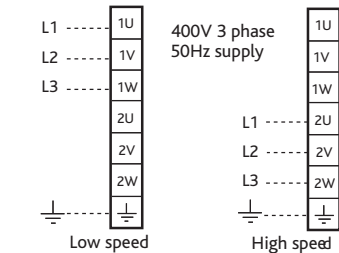
### CURB DIMENSIONS (mm) (300°C/400°C UNITS)

Code	A	B	C	D
ARC56	600	75	675	746
ARC71	800	100	875	1016
ARC100	1000	100	1100	1198
ARC125	1500	100	1600	1700



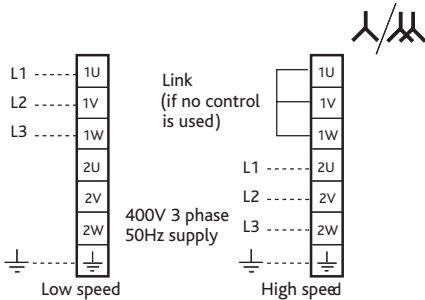
WIRING - AXUS AXIAL FANS

2 Speed 3 phase Dual Wound Motors  
(D.O.L. starting both speeds)



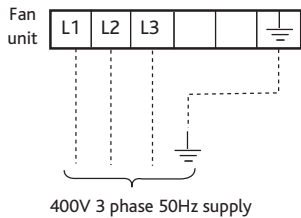
NOTE:  
If a two speed starter is used it must have TWO contactors.  
Individual wiring diagrams are included with each unit.

2 Speed 3 phase TAP/PAM Wound Motors  
(D.O.L. starting both speeds)




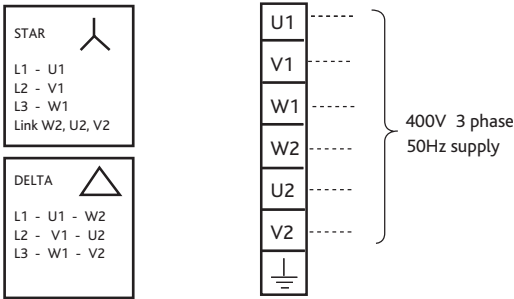
NOTE: If a two speed starter is used it must have THREE contactors.  
Individual wiring diagrams are included with each unit.

Single Speed 3 Phase (Below 4kW)



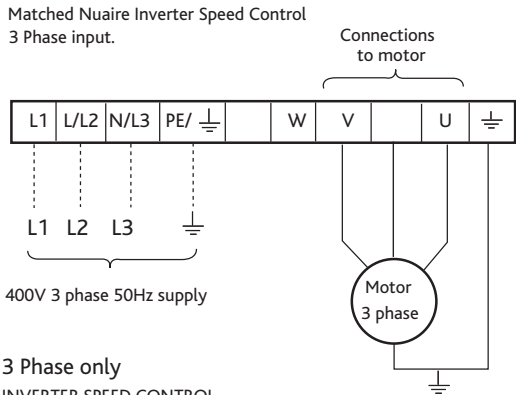
3 phase for Star/Delta Starting (4kW and above)

Note:  
For D.O.L. (Direct On Line) operation or Inverter type Speed Control wire in DELTA 



Note: individual wiring instructions are included with all units.

3 Phase input Matched Nuaire Inverter Speed Control



3 Phase only

INVERTER SPEED CONTROL

Notes:  
Motors should be fitted with PTC Termistors. Refer to Inverter installation sheet for instructions on connection and programming.  
Total length of motor leads should not exceed 50 metres.  
If a screened motor cable is used, maximum length should be 25 metres. Consult our Technical Department if you wish to use longer leads. Inverters are configured to suit specific fans and control applications as described on the Customer Order free of charge.

**Important: when the unit is operated in emergency mode, smoke extract operation, all controls must be bypassed.**

## CONSULTANTS SPECIFICATION

### FAN SPECIFICATION - SMOKE EXTRACT

The ventilation fan Unit shall be configured and arranged as detailed on the drawings and in accordance with the schedule of equipment and shall be of the High Temperature AXUS axial flow fan as manufactured by Nuaire. The units shall be manufactured heavy gauge galvanised corrosion resistant steel to BS EN10142 1991. The case shall be fitted with an external terminal box to IP55. The fan impeller and motor shall be direct drive with IE2 high efficiency motors to BS5000 as standard and shall be foot mounted TENV type with IP55 enclosures and class H insulation in accordance with BS4999 part 20. The bearing type shall either:

- a) Sealed for life (below 160 frame).
- b) Regreasable (160 frame and above).

Motors shall be pre-wired to an external electrical terminal box through weatherproof flexible conduit to IP55.

The units shall be suitable for operation in ambient temperatures up to 60°C and a one off operation of 300°C for 2 hours to class F300/120 minutes or 400°C for 2 hours to class F400/120 minutes.

The unit shall be certified to EN12101-3. The unit has been independently tested for high temperature operation by BSRIA and certified by BSI. The unit is suitable for operating in smoke reservoir and non smoke reservoir applications. A two speed version of the unit to be provided where specified and controlled in accordance with the specification and manufacturers recommendations.

The unit shall be supplied with all necessary ancillaries as recommended by the manufacturer and in accordance with the equipment schedule.

The contractor shall allow for all necessary ductwork transformations to and from the fan unit and any associated components in accordance with the manufacturers recommendations, DW 144 and general good practice.

The impeller blades shall be of special aero-foil section giving excellent performance and low noise characteristic manufactured from cast aluminium alloy (300°C). All units shall be suitable for internal and external operation and can be installed any angle.

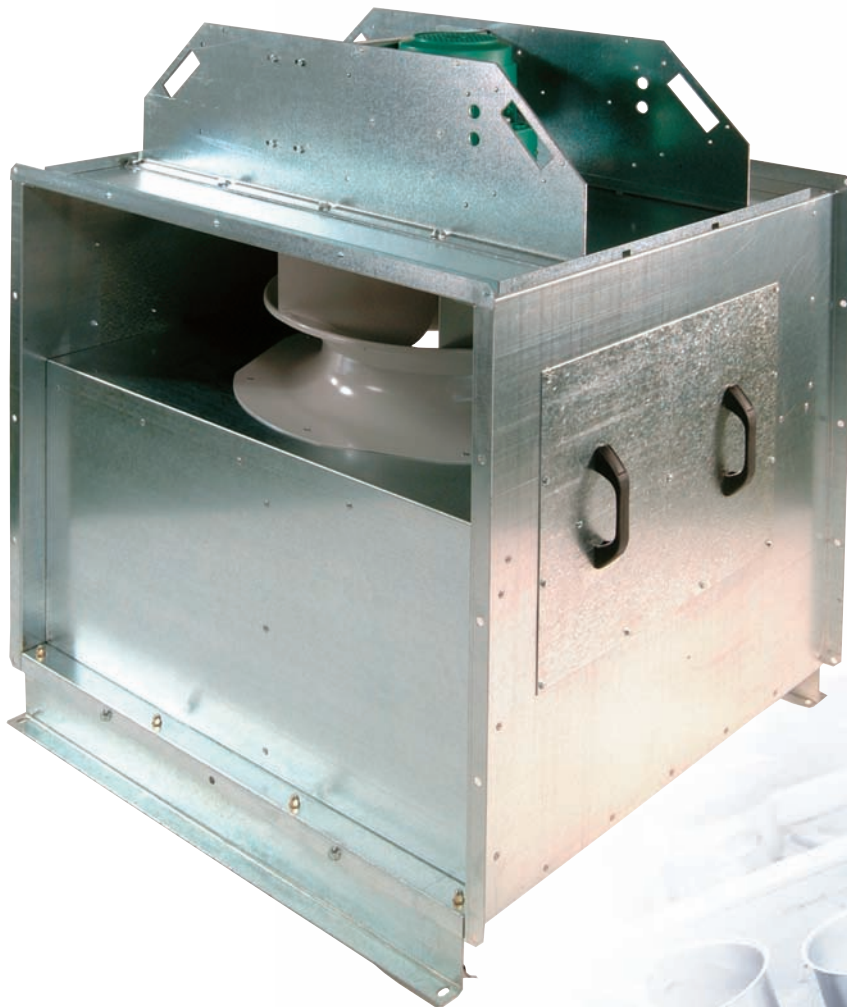
The units will be provided complete with matching flanges, flexible connections, anti vibration mounts and all other necessary components to complete the installation and shall be in accordance with the manufacturer's specification.

The unit and ancillaries shall be supplied with a 3 year warranty.

The unit shall be of the High Temperature AXUS type as manufactured by Nuaire Ltd.

## SQUIF HIGH TEMPERATURE FANS

HIGH TEMPERATURE CENTRIFUGAL SQUIF FOR SMOKE EXTRACT  
CERTIFIED TO EN12101-3-2002.



## BENEFITS

### HIGH TEMPERATURE APPLICATION

Capable of running continuously at 90°C, ideal for kitchen canopy applications with a one off 400°C for 2 hours.

### QUIET OPERATION

One of the quietest solutions for motor unit out of airstream applications.

### EASY MAINTENANCE

'Out of air stream' allows for quick and easy access and lower maintenance costs.

### IDEAL FOR HIGH RESISTANCES

High pressure development suitable for ducted systems.

### FLEXIBLE SOLUTION

Can be mounted internally, externally, vertically or horizontally.

### FAN TO SUIT ALL APPLICATIONS

2-speed motors available for day to day extract and smoke extract.

### SAFETY TESTED

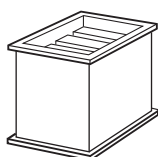
Fans are tested to comply to EN12101-3 2002.

### WARRANTY

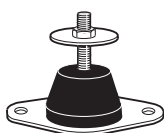
High temperature Squif has a 3 year warranty.

**Note: only suitable for outside smoke reservoir applications.**

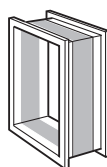
## SQUIF ANCILLARIES



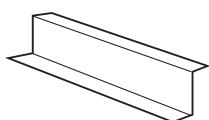
Splitter Attenuator.



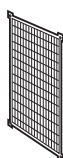
AV Mounts.



Flexible Connector.

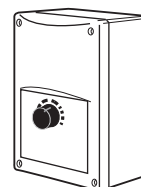


Feet built in.

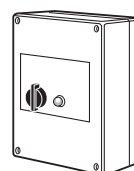


Guard for square units.

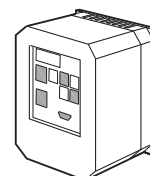
## CONTROLS



Electronic Speed Control.



Transformer Speed Control.

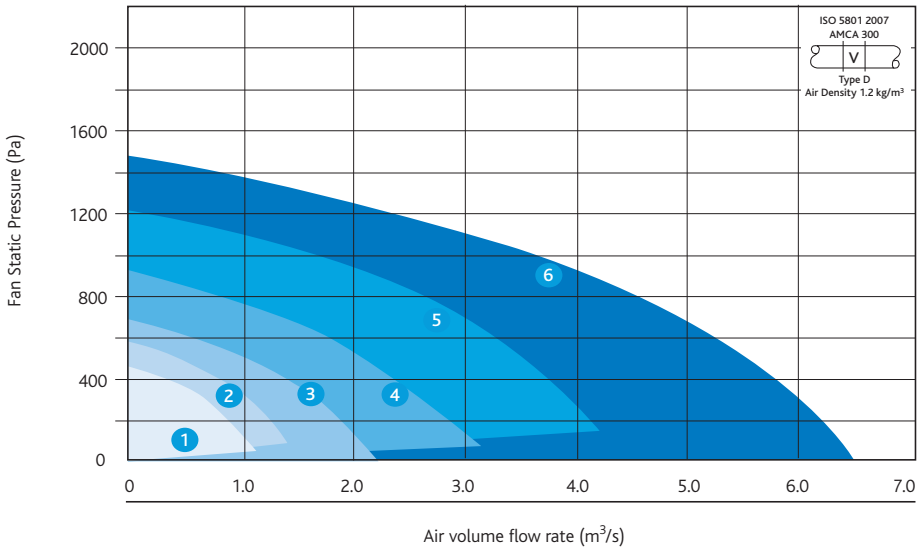


Inverter Speed Control.

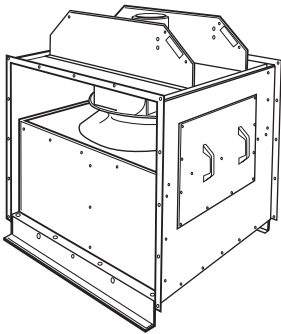


PERFORMANCE - SQUIF HIGH TEMPERATURE FANS

Squif - 4 pole



Casing



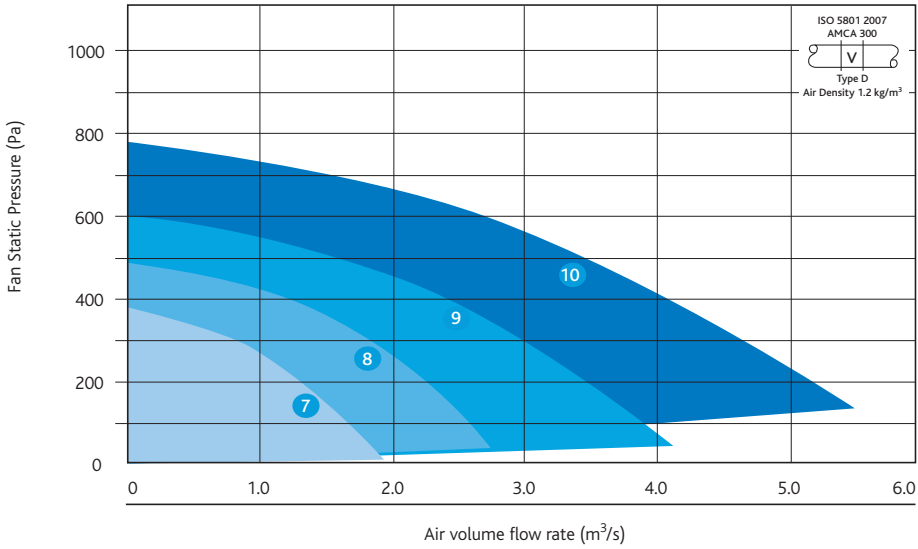
Code descriptions

SQF 4 1 - 3

1 2 3 4

- 1. Squif range
- 2. Pole (4 or 6)
- 3. Curve No.
- 4. Phase (1 or 3)

Squif - 6 pole



## SQUIF

### ELECTRICAL & SOUND

Curve	Code	Phase	RPM	Motor Power (kW)	FLC (amps)	SC (amps)	SC ★/▲	Data Type	Sound Power Levels (dB re 1pW) Octave band mid frequency (Hz)							dBA @ 3m
									125	250	500	1K	2K	4K	8K	
1	SQF 41-3	3	1450	0.37	1.1	5.2	-	I	90	79	70	70	70	69	62	50
	SQF 41-1	1	1410	0.37	2.8	11.2		O	91	74	68	74	75	70	64	
2	SQF 42-3	3	1450	0.75	2	9.0	-	I	92	82	77	74	76	75	67	53
3	SQF 43-3	3	1450	1.1	2.5	12	-	I	95	83	79	77	78	78	71	56
	SQF 43-1	1	1420	1.1	7	35		O	96	79	77	82	83	79	73	
4	SQF 44	3	1450	2.2	4.8	12	-	I	93	89	82	77	80	80	71	58
								O	87	86	87	81	82	82	68	
5	SQF 45	3	1450	4	8.3	45	15	I	99	87	85	85	84	83	81	62
								O	100	83	82	89	89	84	83	
6	SQF 46	3	1450	7.5	15.2	108	36	I	103	92	86	86	85	86	83	63
								O	92	90	91	89	87	87	81	
7	SQF 61	3	960	0.75	2.1	8.82	-	I	89	84	75	70	73	73	64	47
								O	83	81	80	74	75	75	61	
8	SQF 62	3	960	1.1	3	13.2	-	I	96	83	78	76	75	74	72	56
								O	97	78	76	80	79	75	74	
9	SQF 63	3	960	2.2	5.9	28.9	-	I	100	87	79	76	76	77	73	59
								O	101	82	77	80	80	78	75	
10	SQF 64	3	960	4	9.4	63	20.4	I	103	91	82	79	77	77	74	62
								O	104	86	80	83	82	78	76	

The electrical and sound information in the table is nominal. Breakout dBA@3m is spherical, free field.  
Start currents (sc) are DOL 1 = 1 phase (230 Volt, 50Hz) 3 = 3 phase (400 Volt, 50Hz).  
SC★/▲ = star delta starting current.

## QUICK SELECTION GUIDE

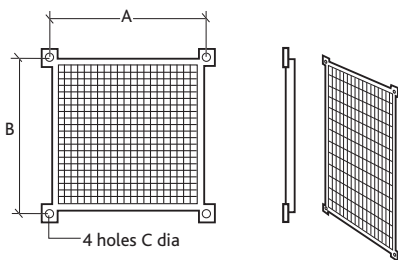
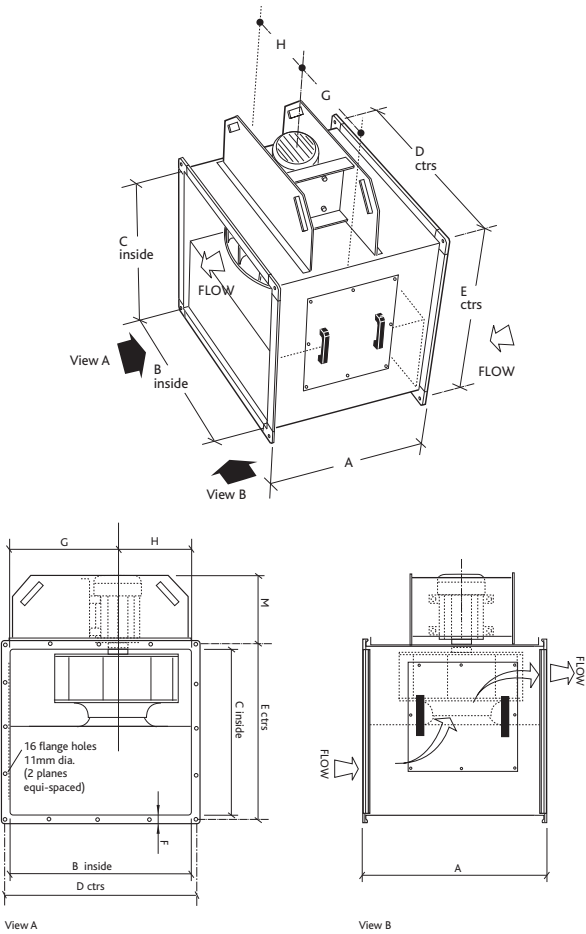
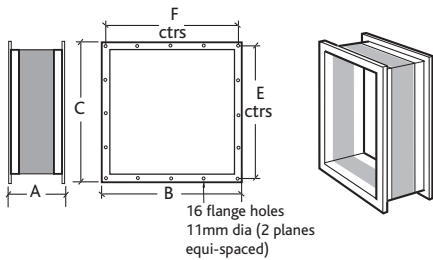
### SQUIF HIGH TEMPERATURE

Fan unit	Standard silencers	Long silencers	Flexible Connectors	Fan Guards	AV Mounts
SQF41-3	SQFS1S	SQFS1L	SQFF1	SQFGD1	NAV2
SQF41-1	SQFS1S	SQFS1L	SQFF1	SQFGD1	NAV2
SQF42-3	SQFS2S	SQFS2L	SQFF2	SQFGD2	NAV2
SQF43-3	SQFS3S	SQFS3L	SQFF3	SQFGD3	NAV2
SQF43-1	SQFS3S	SQFS3L	SQFF3	SQFGD3	NAV2
SQF44	SQFS4S	SQFS4L	SQFF4	SQFGD4	NAV5
SQF45	SQFS4S	SQFS4L	SQFF5	SQFGD5	NAV5
SQF46	SQFS5S	SQFS5L	SQFF6	SQFGD6	NAV3
SQF61	SQFS5S	SQFS5L	SQFF4	SQFGD4	NAV3
SQF62	SQFS6S	SQFS6L	SQFF5	SQFGD5	NAV4
SQF63	SQFS7S	SQFS7L	SQFF6	SQFGD6	NAV4
SQF64	SQFS8S	SQFS8L	SQFF7	SQFGD7	NAV6

DIMENSIONS

SQUIF DIMENSIONS (mm) & WEIGHTS

Table with 11 columns: Unit size, A, B, C, D, E, F, G, H, M, Weight (Kg). It lists dimensions and weights for various SQUIF models from SQF 41-3 to SQF 64.



ANCILLARIES FOR SQUIF UNITS

DOUBLE FLANGED FLEXIBLE CONNECTOR

Flexible duct material is flame proof. Heat resistance is 400°C with excellent resistance to chemicals, ozone, oil and grease. The connector is air-tight, waterproof and tested to BS476 Part 7.

Table with 7 columns: Code, Squif Fan, A, B, C, F, E. It lists dimensions for various Double Flanged Flexible Connector models from SQFF 1 to SQFF 7.

GUARD FOR SQUARE FANS

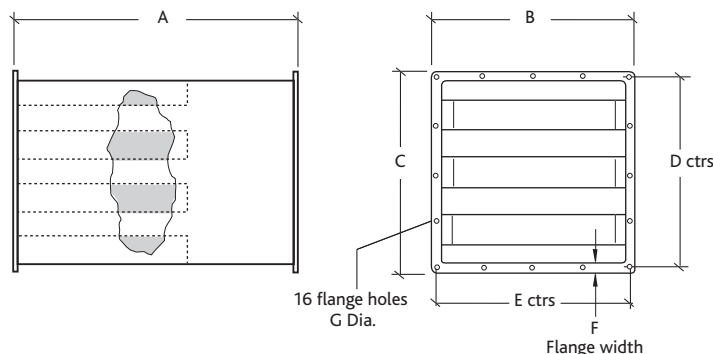
Manufactured from galvanised steel wire or polyester coated mild steel. Resistance to airflow is negligible.

Table with 5 columns: Dimensions (mm), Code, Squif Fan, A, B, C. It lists dimensions for various Guard for Square Fans models from SQFGD 1 to SQFGD 7.

For details on Melinex silencer's please contact Nuaire.

## ANCILLARIES FOR SQUIF HIGH TEMPERATURE UNITS CONT.

### Silencers



### LONG SILENCERS DIMENSIONS (mm) & WEIGHTS

Matching Unit	Attenuator Code	Airflow m <sup>3</sup> /s	Dynamic insertion loss (db)							Dimensions							Weight Kg	Z
			125	250	500	1K	2K	4K	8K	A	B	C	D	E	F	G		
SQF 41-3	SQFS1L	0-1.1	-8	-12	-32	-42	-33	-32	-18	1200	560	560	532	532	26.5	11	38	36.8
SQF 41-1	SQFS1L	0-1.1	-8	-12	-32	-42	-33	-32	-18	1200	560	560	532	532	26.5	11	38	36.8
SQF 42-3	SQFS2L	0-1.6	-8	-12	-32	-42	-33	-32	-18	1200	760	660	630	730	32	11	43	30.5
SQF 43-3	SQFS3L	0-2.2	-8	-12	-32	-42	-33	-32	-18	1200	810	710	680	780	32	11	46	30.5
SQF 43-1	SQFS3L	0-2.2	-8	-12	-32	-42	-33	-32	-18	1200	810	710	680	780	32	11	46	30.5
SQF 44	SQFS4L	0-3.1	-8	-12	-32	-42	-33	-32	-18	1200	860	760	730	830	32	11	60	10.9
SQF 61	SQFS4L	0-1.9	-8	-12	-32	-42	-33	-32	-18	1200	860	760	730	830	32	11	60	10.9
SQF 45	SQFS5L	0-4.3	-8	-12	-32	-42	-33	-32	-18	1200	980	880	830	930	32	12.5	91	5.47
SQF 62	SQFS5L	0-2.7	-8	-12	-32	-42	-33	-32	-18	1200	980	880	830	930	32	12.5	91	5.47
SQF 46	SQFS6L	0-6.5	-8	-12	-32	-42	-33	-32	-18	1200	1080	980	930	1030	32	12.5	98	5.47
SQF 63	SQFS7L	0-4.2	-8	-12	-32	-42	-33	-32	-18	1200	1080	980	930	1030	32	12.5	116	1.54
SQF 64	SQFS8L	0-6	-8	-12	-32	-42	-33	-32	-18	1200	1180	1080	1030	1130	32	12.5	122	1.54

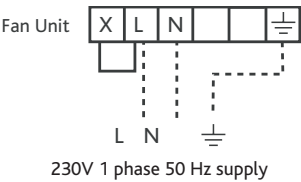
### SHORT SILENCERS DIMENSIONS (mm) & WEIGHTS

Matching Unit	Attenuator Code	Airflow m <sup>3</sup> /s	Dynamic insertion loss (db)							Dimensions							Weight Kg	Z
			125	250	500	1K	2K	4K	8K	A	B	C	D	E	F	G		
SQF 41-3	SQFS1S	0-1.1	-4	-8	-18	-24	-19	-16	-11	900	560	560	532	532	26.5	11	15	36.8
SQF 41-1	SQFS1S	0-1.1	-4	-8	-18	-24	-19	-16	-11	900	560	560	532	532	26.5	11	15	36.8
SQF 42-3	SQFS2S	0-1.6	-4	-8	-18	-24	-19	-16	-11	900	760	660	630	730	32	11	29	30.5
SQF 43-3	SQFS3S	0-2.2	-4	-8	-18	-24	-19	-16	-11	900	810	710	680	780	32	11	32	30.5
SQF 43-1	SQFS3S	0-2.2	-4	-8	-18	-24	-19	-16	-11	900	810	710	680	780	32	11	32	30.5
SQF 44	SQFS4S	0-3.1	-4	-8	-18	-24	-19	-16	-11	900	860	760	730	830	32	11	42	10.9
SQF 61	SQFS4S	0-1.9	-4	-8	-18	-24	-19	-16	-11	900	860	760	730	830	32	11	42	10.9
SQF 45	SQFS5S	0-4.3	-4	-8	-18	-24	-19	-16	-11	900	980	880	830	930	32	12.5	61	5.47
SQF 62	SQFS5S	0-2.7	-4	-8	-18	-24	-19	-16	-11	900	980	880	830	930	32	12.5	61	5.47
SQF 46	SQFS6S	0-6.5	-4	-8	-18	-24	-19	-16	-11	900	1080	980	930	1030	32	12.5	68	5.47
SQF 63	SQFS7S	0-4.2	-4	-8	-18	-24	-19	-16	-11	900	1080	980	930	1030	32	12.5	81	1.54
SQF 64	SQFS8S	0-6	-4	-8	-18	-24	-19	-16	-11	900	1180	1080	1030	1130	32	12.5	86	1.54

Note: Air Pressure Drop of Attenuator (Pa) = Z x Q<sup>2</sup> where Z = Factor listed in table above Q = Air Volume Flow Rate (m<sup>3</sup>/s).

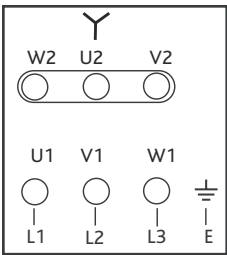
WIRING - SQUIF

Single phase single speed

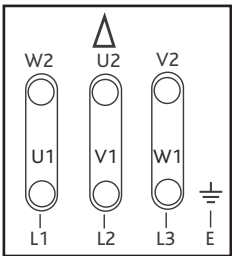


Three phase motors are connected directly to the Motor Terminal Box

3 phase units up to 3KW



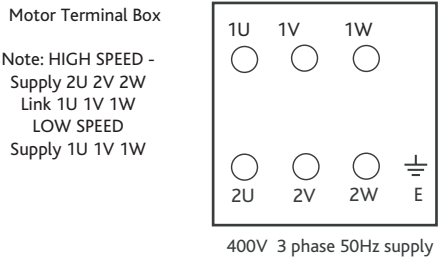
3 phase units 4KW and above



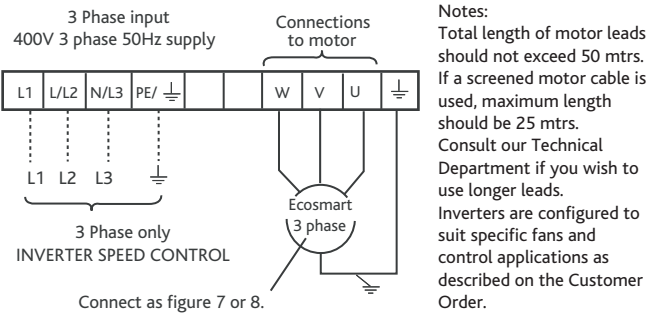
Important: when the unit is operated in emergency mode, smoke extract operation, all controls must be bypassed to comply with EN12101-3 certification of the unit.

Two speed motors DOL starting on both speeds

Observe the motor plate and connection details.  
3 phase two speed tap/pam wound motors require a three contactor control.  
3 phase Dual wound motors require a two contactor control.



3 phase units with matched frequency inverter



## CONSULTANTS SPECIFICATION

### SYSTEM SPECIFICATION

The SMOKE EXTRACT fan Unit shall be configured and arranged as detailed on the drawings and in accordance with the schedule of equipment and shall be of the SQUIF type as manufactured by Nuaire. The units shall be manufactured in heavy gauge Aluzinc corrosion resistant steel. The general construction is to class A leakage.

The fan impeller and motor shall be selected to provide the most energy efficient solution conforming to part L regulations and shall be direct drive with IE2 high efficiency motors to BS5000 as standard.

The fan impeller shall be a high efficiency backward curved centrifugal design, manufactured in galvanised steel and the motor shall be positioned outside the ventilation airflow path. It shall provide excellent in duct and breakout noise levels.

The unit shall be capable of continuous operation at 90°C and a one off operation at up to 400°C for a period of 2 hrs certified to EN12101-3. The unit has been independently tested for high temperature operation by BSRIA and certified by BSI. This shall be achieved using a standard non temperature rated motor. The unit is only suitable for non-smoke reservoir applications.

A two speed version of the unit to be provided where specified and controlled in accordance with the specification and manufacturers recommendations.

The unit shall be supplied with all necessary ancillaries as recommended by the manufacturer and in accordance with the equipment schedule.

The contractor shall allow for all necessary ductwork transformations to and from the fan unit and any associated components in accordance with the manufacturers recommendations, DW144 and general good practice.

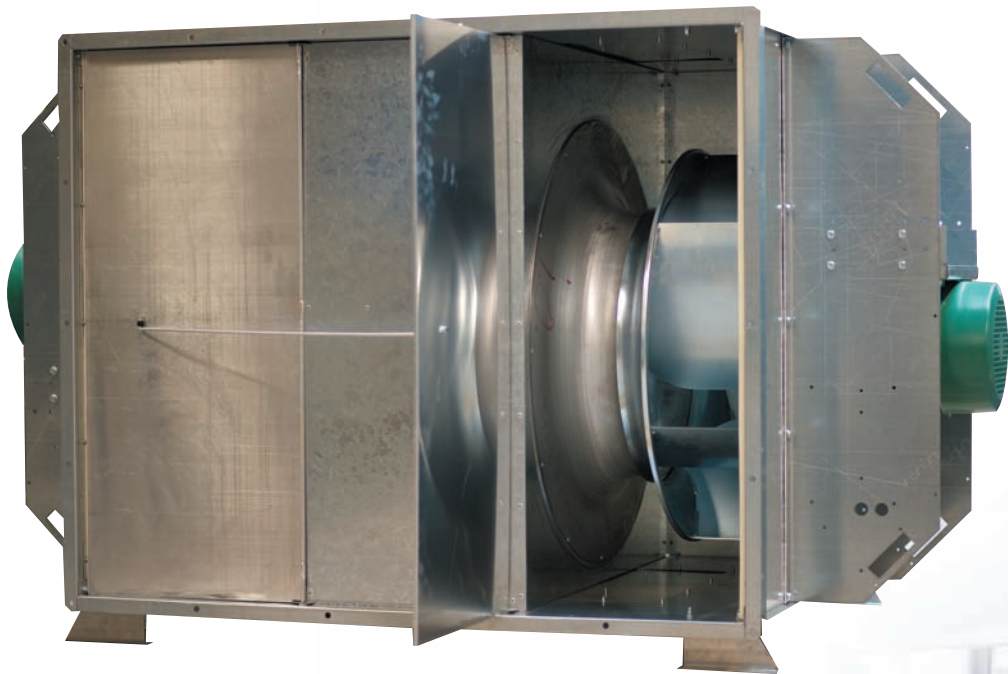
The unit and ancillaries shall be supplied with a 3 year warranty.

The unit shall be of the SQUIF type as manufactured by Nuaire Ltd.



HIGH TEMPERATURE TWIN SQUIF FANS

HIGH TEMPERATURE TWIN SQUIF FOR SMOKE EXTRACT  
CERTIFIED TO EN12101-3-2002.



## BENEFITS

### QUIET AND POWERFUL SOLUTIONS

High performance centrifugal motor/impeller combination providing a low noise solution.

### CLEANER

'Out of air stream' motors are ideal for dirty extract and greasy environments. Cleaner motor improves cooling and extends motor life.

### HIGH TEMPERATURE APPLICATION

Capable of running continuously at 90°C. Ideal for kitchen canopy applications with a one off 400°C for 2 hours.

### EASY MAINTENANCE

'Out of air stream' motors allow for quick and easy access. Inspection hatches allow the internal parts to be easily checked and cleaned.

### IDEAL FOR HIGH RESISTANCES

High efficiency centrifugal impellers provide high pressure development suitable for ducted systems and kitchen canopy with extreme filtration.

### PREVENTS INTERNAL RECIRCULATION

Backdraft dampers inbuilt.

### FLEXIBLE SOLUTION

Can be mounted internally, externally, vertically or horizontally. Mounting facilities included.

### FAILURE DETECTION

Inverter detects fan failure and Ecosmart control sends signal to 2nd fan.

### CONTROL BY OTHERS

### FAN TO SUIT ALL APPLICATIONS

2-speed motors available for day to day extract.

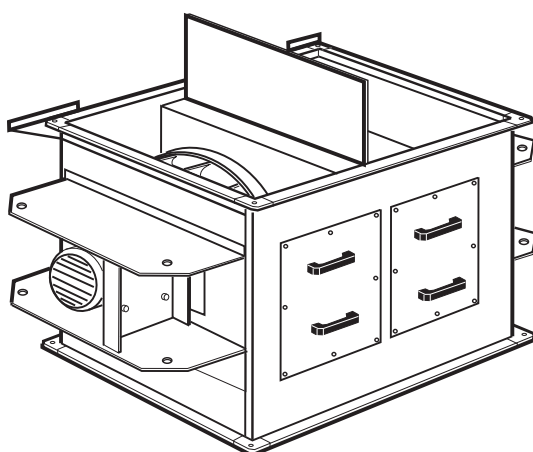
### WARRANTY

Twin Squif has a 3 year warranty.

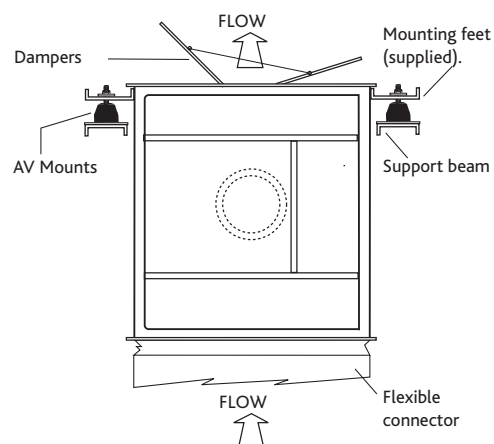
Note: Please contact Nuaire for high temperature enquiries.

Note: For information on Gas Interlock please refer to Single Fan section.

## TYPICAL INSTALLATIONS



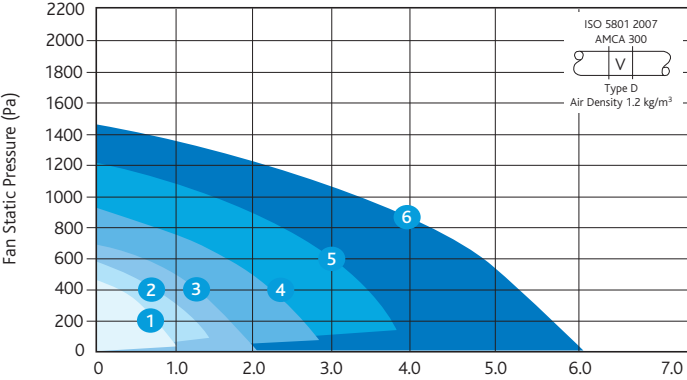
AV mounts fitted to unit mounting feet (supplied) in horizontal discharge mode.



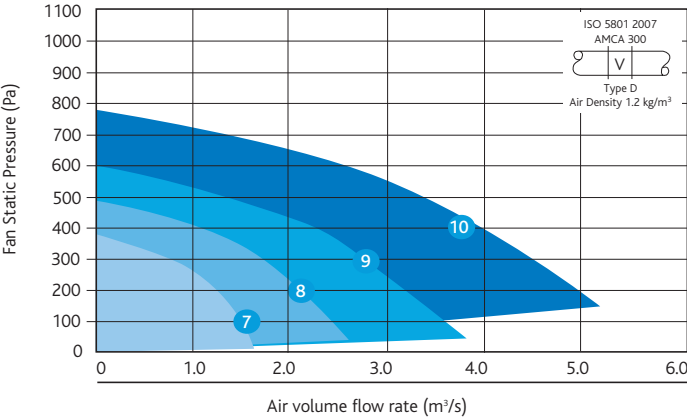
Unit in vertical discharge mode, mounted on support beam using AV mounts.

PERFORMANCE - HIGH TEMPERATURE TWIN SQUIF FANS

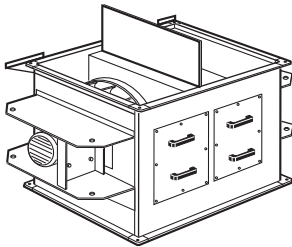
Twin Squif - 4 pole



Twin Squif - 6 pole



Casing



Code descriptions

SQFT 4 1 - 3

1 2 3 4

- 1. High Temperature Twin Squif
- 2. Pole (4 or 6)
- 3. Curve No.
- 4. Phase (1 or 3)

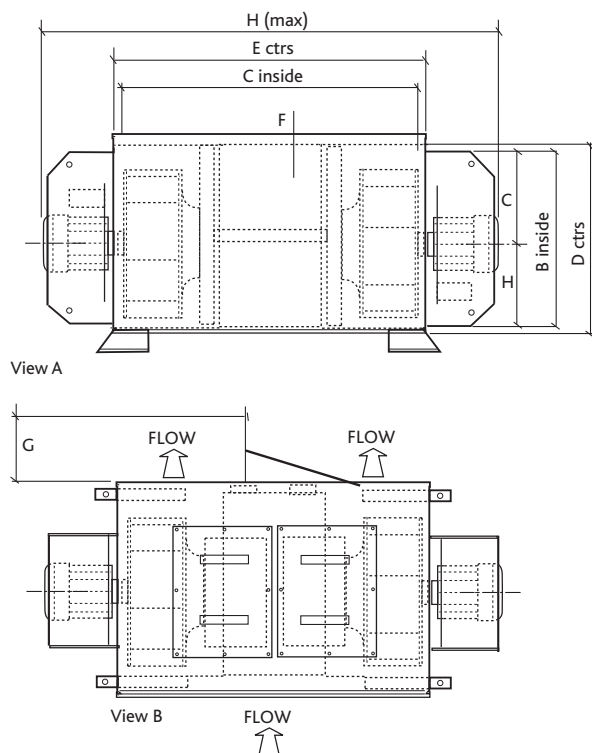
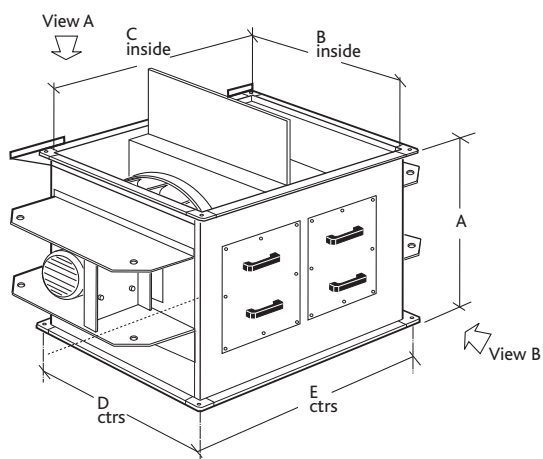
Note: curves include loss through idling fan.

PERFORMANCE - TWIN SQUIF EXTRACT FANS

ELECTRICAL & SOUND																
Curve	Code	Phase	RPM	Motor			Data Type	Induct inlet Sound Power levels dB re lpW								Breakout dBA@ 3m
				Power (kW)	FLC (amps)	SC (amps)		63	125	250	500	1K	2K	4K	8K	
1	SQFT41-1	1	1410	0.37	2.8	11.2	I	90	93	79	70	70	70	69	62	52
							O	87	94	74	68	74	75	70	64	
1	SQFT41-3	3	1450	0.37	1.06	5.2	I	90	93	79	70	70	70	69	62	52
							O	87	94	74	68	74	75	70	64	
2	SQFT42-3	3	1450	0.75	2.01	9.04	I	88	95	82	77	74	76	75	67	55
							O	85	96	78	74	78	80	77	69	
3	SQFT43-1	1	1420	1.1	7	35	I	92	98	83	79	77	78	78	71	58
							O	89	99	79	77	82	83	79	73	
3	SQFT43-3	3	1450	1.1	2.5	12	I	92	98	83	79	77	78	78	71	58
							O	89	99	79	77	82	83	79	73	
4	SQFT44	3	1450	2.2	4.8	28.8	I	86	96	89	82	77	80	80	71	58
							O	87	90	86	87	81	82	82	68	
5	SQFT45	3	1450	4	9	59	I	92	102	87	85	85	84	83	81	63
							O	90	103	83	82	89	89	84	83	
6	SQFT46	3	1450	7.5	15.2	108	I	92	106	92	86	86	85	86	83	64
							O	95	95	90	91	89	87	87	81	
7	SQFT61	3	960	0.75	2.1	8.82	I	84	92	84	75	70	73	73	64	48
							O	85	86	81	80	74	75	75	61	
8	SQFT62	3	960	1.1	3	13.2	I	90	99	83	78	76	75	74	72	58
							O	87	100	78	76	80	79	75	74	
9	SQFT63	3	960	2.2	5.9	28.9	I	90	103	87	79	76	76	77	73	61
							O	87	104	82	77	80	80	78	75	
10	SQFT64	3	960	4	9.4	61.2	I	91	106	91	82	79	77	77	74	64
							O	88	107	86	80	83	82	78	76	

Breakout dBA@3m is hemispherical free field. The electrical and sound information in the table are nominal figures.

**DIMENSIONS - TWIN SQUIF FANS**

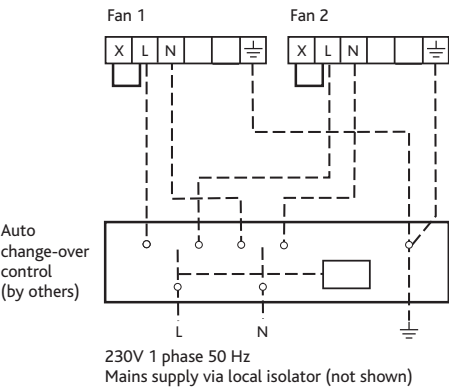


**DIMENSIONS (mm) & WEIGHT**

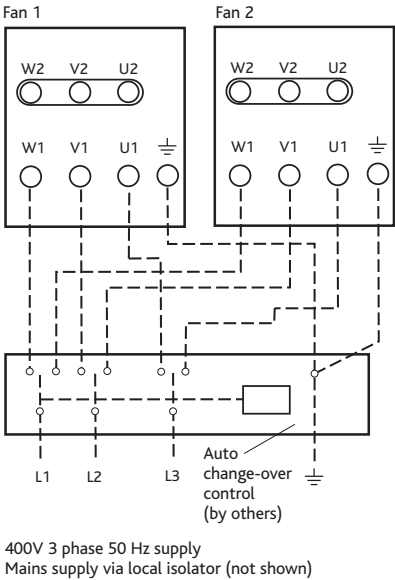
Unit Size	A	B	C	D	E	F	G	H	Motor (kW)	Total Fan Weight (Kg)	AV selection	Mounting Orientation
SQFT41-3	634	500	710	529	741	26.5	223.5	1110	0.37	52	NAV2	Horizontal discharge or vertically up discharge.
SQFT41-1	634	500	710	529	741	26.5	223.5	1110	0.37	52	NAV2	
SQFT41-3ES	634	500	710	529	741	26.5	223.5	1110	0.37	80	NAV2	
SQFT42-3	692	700	780	730	811	32	248	1220	0.75	77	NAV2	
SQFT42-3ES	692	700	780	730	811	32	248	1220	0.75	77	NAV3	
SQFT43-3	750	750	882	780	913	32	278	1382	11	102	NAV5	
SQFT43-1	750	750	882	780	913	32	278	1382	11	102	NAV5	
SQFT43-3ES	750	750	882	780	913	32	278	1382	11	102	NAV5	
SQFT44	820	800	970	830	1001	32	303	1550	2.2	100	NAV5	
SQFT61	820	800	970	830	1001	32	303	1550	0.75	111	NAV5	
SQFT44ES	820	800	970	830	1001	32	303	1550	2.2	100	NAV5	Horizontal discharge only.
SQFT61ES	820	800	970	830	1001	32	303	1550	0.75	111	NAV5	
SQFT45	901	900	1075	930	1106.5	32	333	1655	4.0	150	NAV3	
SQFT62	901	900	1075	930	1106.5	32	333	1655	1.1	141	NAV3	
SQFT45ES	901	900	1075	930	1106.5	32	333	1655	4.0	150	NAV3	
SQFT62ES	901	900	1075	930	1106.5	32	333	2070	1.1	141	NAV3	
SQFT46	994	1000	1230	1030	1261	32	383	2070	7.5	315	NAV6	
SQFT63	994	1000	1230	1030	1261	32	383	2070	2.2	180	NAV3	
SQFT46ES	994	1000	1230	1030	1261	32	383	2070	7.5	315	NAV6	
SQFT63ES	994	1000	1230	1030	1261	32	383	2070	2.2	180	NAV3	
SQFT64	1114	1100	1380	1130	1411	32	433	2220	4.0	580	NAV52	
SQFT64ES	1114	1100	1380	1130	1411	32	433	2220	4.0	580	NAV52	

WIRING - TWIN SQUIF FANS

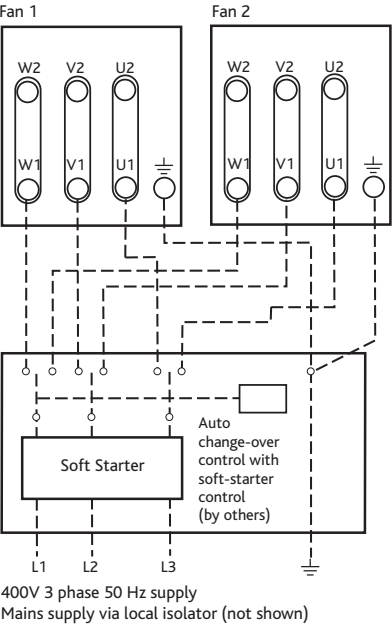
Single Phase Fans - Constant Speed



Three phase fans Single speed -  
motors up to 3kW inclusive



Single speed -  
motors 4kW or above



## CONSULTANTS SPECIFICATION

### SYSTEM SPECIFICATION

The ventilation fan Unit shall be configured and arranged as detailed on the drawings and in accordance with the schedule of equipment and shall be of the SQUIF type as manufactured by Nuaire. The units shall be manufactured heavy gauge Aluzinc corrosion resistant steel.

The general construction is to class A leakage.

### FAN SPECIFICATION

The fan impeller and motor shall be selected to provide the most energy efficient solution conforming to part L regulations and shall be direct drive with IE2 high efficiency motors to BS5000 as standard. The fan impeller shall be a high efficiency backward curved centrifugal design, manufactured in galvanised steel and the motor shall be positioned outside the ventilation airflow path.

The unit shall be capable of continuous operation at 90°C and a one off operation at up to 400°C for a period of 2 hrs certified to EN12101-3. The unit has been independently tested for high temperature operation by BSRIA and certified by BSI. This shall be achieved using a standard non-temperature rated motor. The unit is suitable for non-smoke reservoir applications.

Run and standby fan assemblies to incorporate fan impeller and motors selected to provide the most energy efficient solution conforming to part L regulations and shall be direct with IE2 high efficiency motors to EN60034-30 as standard, belt or direct drive with EN60034-30 motors fitted with "hall effect" air flow failure monitoring, units suitable for operation in ambient temperatures of 40°C.

The contractor shall allow for all necessary ductwork transformations to and from the fan unit and any associated components in accordance with the manufacturers recommendations, DW 144 and general good practice. The unit and ancillaries shall be of the SQFT type as manufactured by Nuaire Ltd.

### CONTROL

Auto change over and emergency operation controlled by others.

All equipment shall be as manufactured by Nuaire Ltd.

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FOR APARTMENTS



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FOR CAR PARKS



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