BIFURCATED AXIAL FLOW FANS

HIGH PERFORMANCE, LOW MAINTENANCE, 'MOTOR OUT OF AIRSTREAM' FOR COMPLETE PEACE OF MIND.

ecosmart
OPTIONS AVAILABLE

BENEFITS

HIGH TEMPERATURE PERFORMANCE
The standard bifurcated unit is suitable for temperatures up 90°C. High temperature options available up to 230°C.

WIDE RANGE
The widest range of 'standard' bifurcated axials available. A fan to match every application ensures maximum efficiency saving costly energy.

LOW MAINTENANCE
Motor out of airstream ensures the unit is not effected by contaminents yet is easily accessible.

LONG LIFE HEAVY GAUGE GALVANISED STEEL CONSTRUCTION
Ensures strength, durability and protection from damage during installation and will be corrosion resistant.

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.

COMPREHENSIVE ANCILLARIES
Including attenuators, frequency inverters, Ecosmart controls and mounting ancillaries all pre-selected for the individual fan to ensure a perfect match and eliminate any on-site fitting problems.

FAN OPTIONS
Options within the bifurcated axus range, Two speed – operation half and full, Flameproof motors to EExd IIBT4 for operation in systems with in duct ambient temp up to 230°C.

STOCK AVAILABILITY
Stock range available on 'next day' delivery. Standard products available, to give peace of mind when designing those 'rapid turnaround' projects. Contact Nuaire for details.

WARRANTY
Bifurcated fans have a 3 year warranty. Ecosmart Bifurcated fans have a 5 year warranty.

ANCILLARIES FOR BIFURCATED AXIAL FANS

Mounting Brackets (pair)
Typical Code: CMB31

Matching Flange (single)
Typical Code: CMF31

Flexible Connector (Single)
Typical Code: CFC31

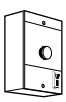
Anti-Vibration Mounts (for fan only)
Codes: See Tables

Attenuator (standard, long and podded options). Typical Code: CA31S

Guard
Typical Code: CGD31

Inlet Cone
Typical Code: CIC31

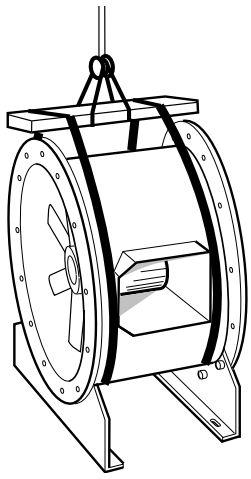
Backdraught Damper
Typical Code: CBD31



Inverters
Refer to end of Axial section

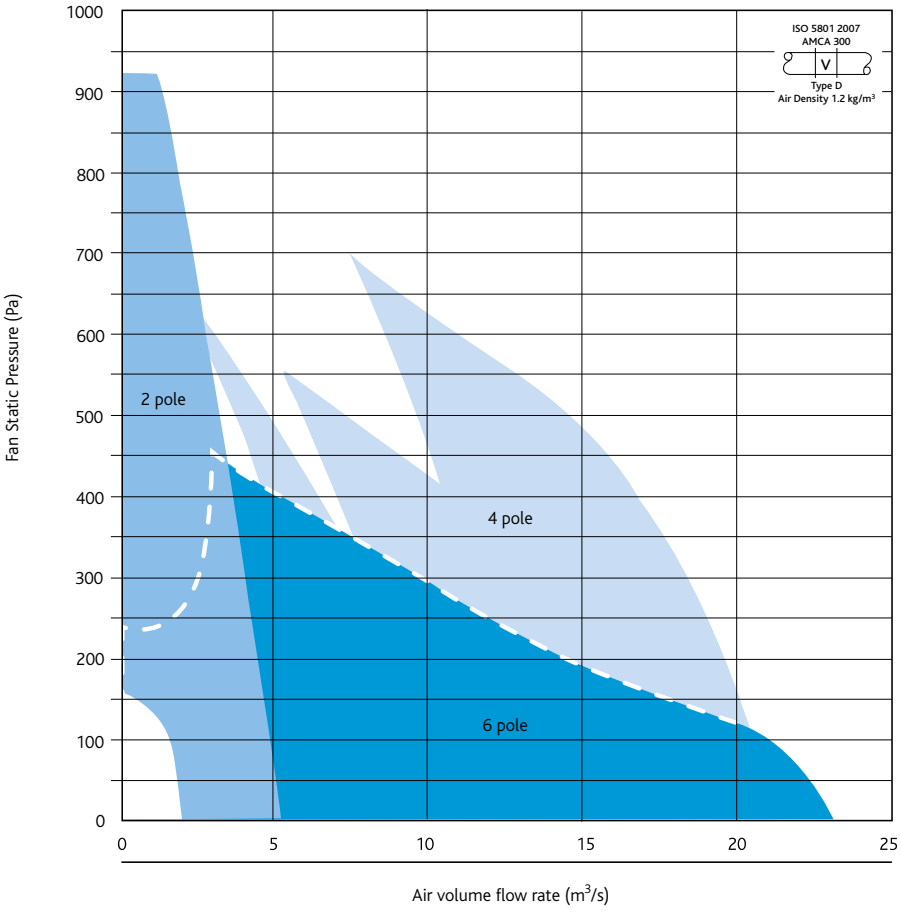
Note: individual ancillary code numbers for each fan size are included on page 310.

Correct method of lifting using a spreader.

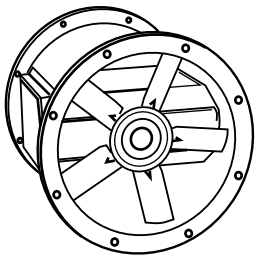


DUTY RANGE - BIFURCATED AXIAL FLOW UNITS

Below is an indication of the overall duty range, a selection of which is covered in this brochure. Please contact Nuaire (029) 20 858 200 for any duty outside the range indicated.



Casing



Code descriptions

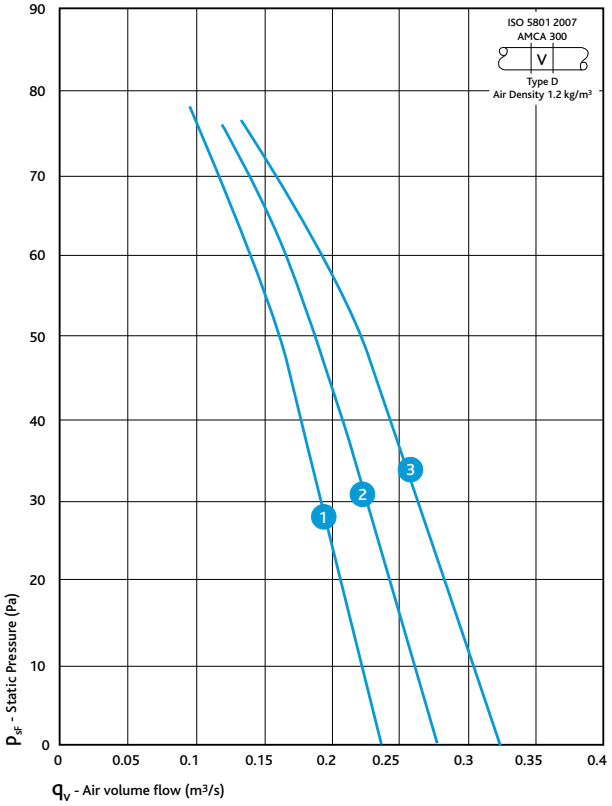
AXB 100 Z - 4 1 3 A T ES B C

1 2 3 4 5 6 7 8 9 10 11

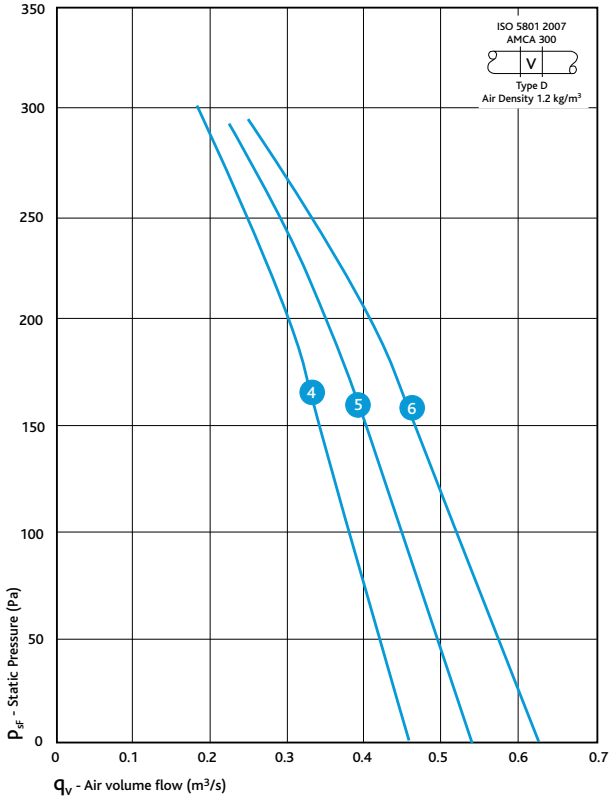
1. Bifurcated AXUS Long cased axial
2. Case diameter in cms
3. Impeller specification reference
4. Motor speed in poles
5. Impeller blade angle reference
6. Electrical supply in Phases
   1 = 230V, 50Hz
   3 = 400V, 50Hz
7. Impeller material
   No letter = standard GRP
   A = Optional aluminium alloy
8. Other options (combinations possible)
   T = Two speed (full and half)
   F = Flameproof (EExd 11BT4)
   2 = 90°C operation
   Z = Access door
9. ES = Full Ecosmart controls.
   BMS interfaces and commissioning controls (as 2 & 3 below) full compatibility with Ecosmart sensors.
10. B = BMS interfaces 0-10V, volt free run and fail indication.
    Commissioning/speed control built in.
    Adjustable trickle and boost if required.
11. C = Commissioning/speed control built in.
    Adjustable trickle and boost if required.
    All the above control options are pre-programmed with a soft start function.
    The above control options are provided in a purpose made module mounted remote from the unit. Other controls to be specified separately see selection table.

PERFORMANCE - BIFURCATED AXIAL FLOW UNITS - 315MM Ø

315mm Ø 4 Pole/1440 rpm



315mm Ø 2 Pole/2800 rpm



ELECTRICAL & SOUND

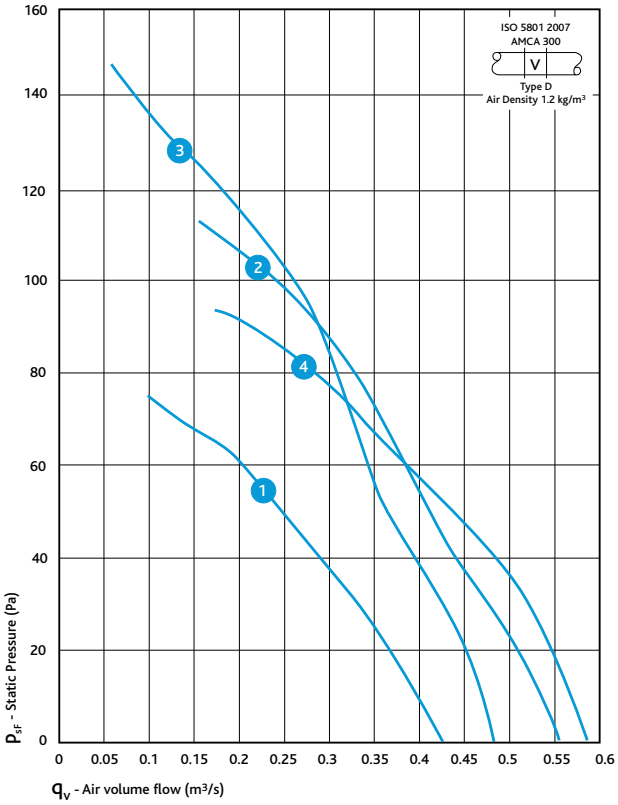
Curve No	Unit Code	Blade Angle°	Speed RPM	Unit kg	A.V. Set	Motor frame size	1 Phase (230V-50Hz) Motor kW	FLC amps	SC amps	3 Phase (400V-50Hz) Motor kW	FLC amps	SC amps	In-duct inlet sound power levels dB re 1pW Octave band mid frequency Hz 125	250	500	1K	2K	4K	8K	Breakout dBA@3m
315mm Ø - 4 Pole/1440rpm																				
1	AXB31B-41*A	25°	1430	22	NAV1	71	0.37	2.9	11.6	0.37	1.06	3.5	67	72	66	63	59	51	46	43
2	AXB31B-42*A	30°	1430	22	NAV1	71	0.37	2.9	11.6	0.37	1.06	3.5	71	76	69	67	62	55	50	46
3	AXB31B-43*A	35°	1430	22	NAV1	71	0.37	2.9	11.6	0.37	1.06	3.5	74	79	72	70	66	58	53	49
315mm Ø - 2 Pole/2800rpm																				
4	AXB31B-21*A	25°	2810	27	NAV1	80	0.55	3.8	17.1	0.55	1.36	5.8	72	81	78	78	74	66	61	55
5	AXB31B-22*A	30°	2810	22	NAV1	80	0.55	3.8	17.1	0.55	1.36	5.8	76	85	81	82	77	70	65	58
6	AXB31B-23*A	35°	2810	22	NAV1	80	0.55	3.8	17.1	0.55	1.36	5.8	79	88	84	85	81	73	68	61

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 DOL other than for motors of 4kW and above which are Star Delta (T).
*Insert number for correct phase. 1 = 1 phase, 3 = 3 phase.

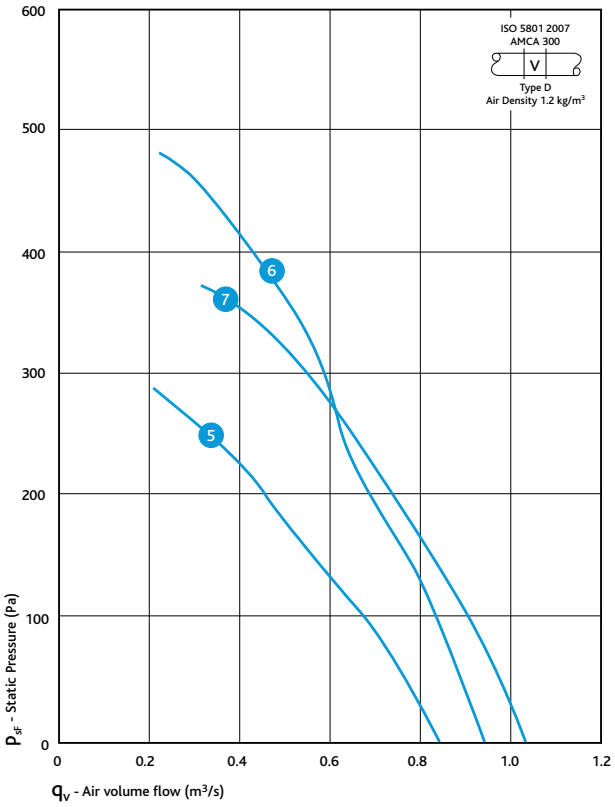
For ancillaries please refer to page 310.

PERFORMANCE - BIFURCATED AXIAL FLOW UNITS - 350MM Ø

350mm Ø 4 Pole/1440 rpm



350mm Ø 2 Pole/2800 rpm



ELECTRICAL & SOUND

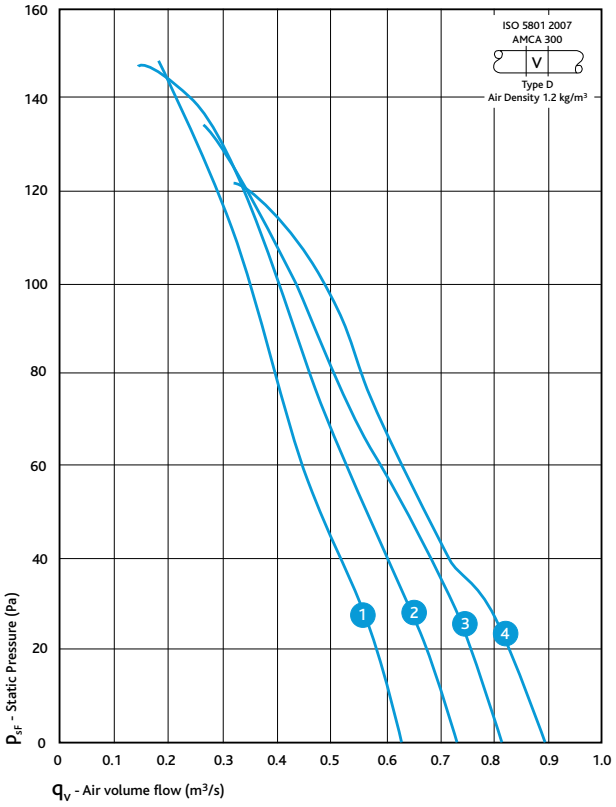
Curve No	Unit Code	Blade Angle°	Speed RPM	Unit kg	A.V. Set	Motor frame size	1 Phase (230V-50Hz) Motor kW	FLC amps	SC amps	3 Phase (400V-50Hz) Motor kW	FLC amps	SC amps	In-duct inlet sound power levels dB re 1pW Octave band mid frequency Hz 125	250	500	1K	2K	4K	8K	Breakout dBA@3m
350mm Ø - 4 Pole/1440rpm																				
1	AXB35A-41*A	25°	1430	25	NAV2	71	0.37	2.9	11.6	0.37	1.06	3.5	78	67	66	65	61	54	48	43
2	AXB35D-41*A	25°	1430	25	NAV2	71	0.37	2.9	11.6	0.37	1.06	3.5	74	75	70	71	67	58	50	48
3	AXB35D-42*A	30°	1430	25	NAV2	71	0.37	2.9	11.6	0.37	1.06	3.5	84	79	74	72	68	60	51	48
4	AXB35M-45*A	35°	1430	25	NAV2	71	0.37	2.9	11.6	0.37	1.06	3.5	92	75	75	74	69	63	56	48
350mm Ø - 2 Pole/2800rpm																				
5	AXB35A-21*A	25°	2810	25	NAV2	80	0.55	3.8	17.1	0.55	1.36	5.8	80	80	83	85	80	73	68	60
6	AXB35D-21*A	25°	2810	25	NAV2	80	0.55	3.8	17.1	0.55	1.36	5.8	82	84	91	87	84	77	70	65
7	AXB35B-22*A	30°	2810	25	NAV2	80	0.55	3.8	17.1	0.55	1.36	5.8	83	92	88	89	84	77	72	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 DOL other than for motors of 4kW and above which are Star Delta (T).
*Insert number for correct phase. 1 = 1 phase, 3 = 3 phase.

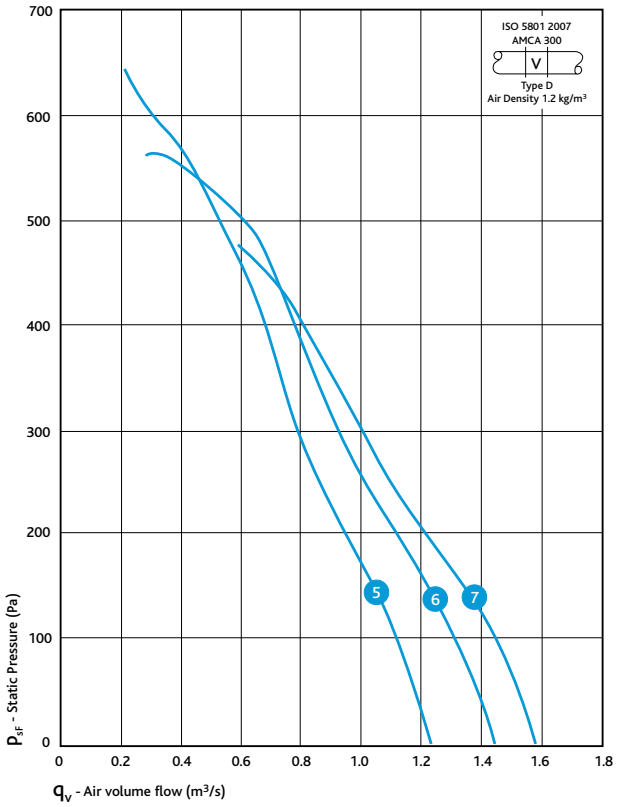
For ancillaries please refer to page 310.

PERFORMANCE - BIFURCATED AXIAL FLOW UNITS - 400MM Ø

400mm Ø 4 Pole/1440 rpm



400mm Ø 2 Pole/2800 rpm



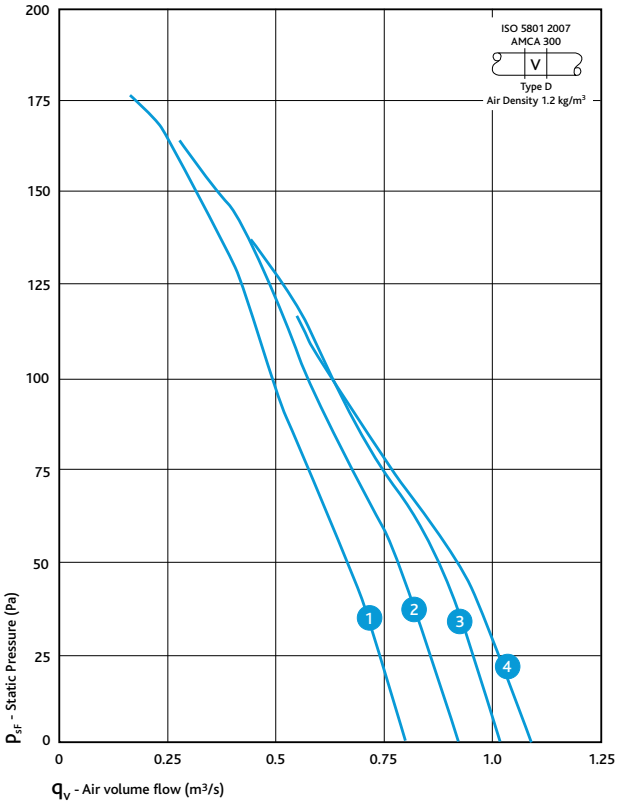
ELECTRICAL & SOUND

Curve No	Unit Code	Blade Angle°	Speed RPM	Unit kg	A.V. Set	Motor frame size	1 Phase (230V-50Hz) Motor kW	FLC amps	SC amps	3 Phase (400V-50Hz) Motor kW	FLC amps	SC amps	In-duct inlet sound power levels dB re 1pW Octave band mid frequency Hz 125	250	500	1K	2K	4K	8K	Breakout dBA@3m
400mm Ø - 4 Pole/1440rpm																				
1	AXB40M-41*A	20°	1410	28	NAV2	71	0.37	2.9	11.6	0.37	1.06	3.5	85	79	76	74	68	60	50	53
2	AXB40M-42*A	25°	1410	28	NAV2	71	0.37	2.9	11.6	0.37	1.06	3.5	85	81	75	75	70	61	52	53
3	AXB40M-43*A	30°	1410	28	NAV2	71	0.37	2.9	11.6	0.37	1.06	3.5	85	81	77	76	71	64	55	54
4	AXB40F-43*A	35°	1410	28	NAV2	71	0.37	2.9	11.6	0.37	1.06	3.5	85	83	78	76	71	63	56	55
400mm Ø - 2 Pole/2800rpm																				
5	AXB40M-21*A	20°	2700	31	NAV2	80	1.1	7.5	35	1.1	2.5	14	86	90	92	94	87	79	75	69
6	AXB40M-21*A	25°	2700	31	NAV2	80	1.1	7.5	35	1.1	2.5	14	87	96	93	93	87	80	74	69
7	AXB40M-22*A	30°	2700	31	NAV2	80	1.1	7.5	35	1.1	2.5	14	90	95	94	94	88	81	75	69

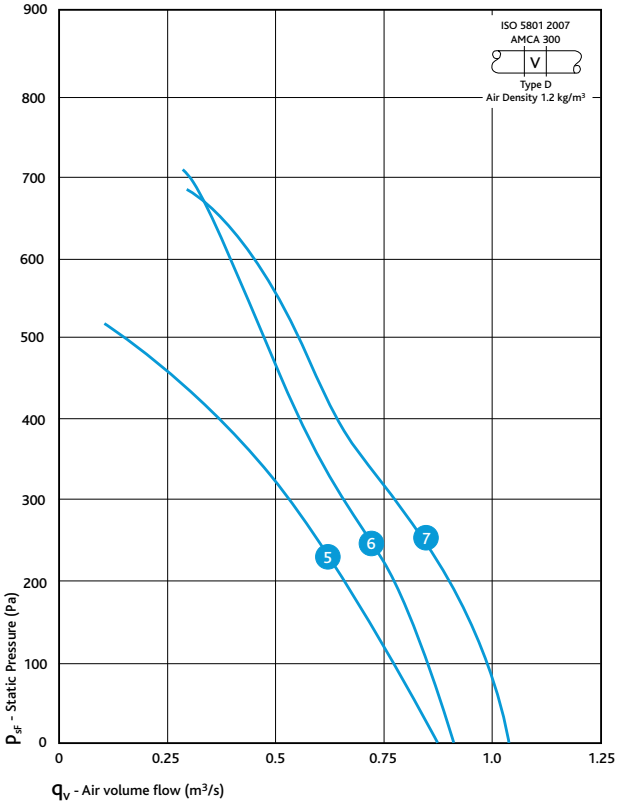
Notes relating to the table: The electrical and sound information in the table is nominal. Breakout dBA@3m is spherical, free field.
Start currents (sc) are DOL other than for motors of 4kW and above which are Star Delta (T).
*Insert number for correct phase. 1 = 1 phase, 3 = 3 phase.
For ancillaries please refer to page 310.

PERFORMANCE - BIFURCATED AXIAL FLOW UNITS - 450MM Ø

450mm Ø 4 Pole/1440 rpm



450mm Ø 2 Pole/2800 rpm



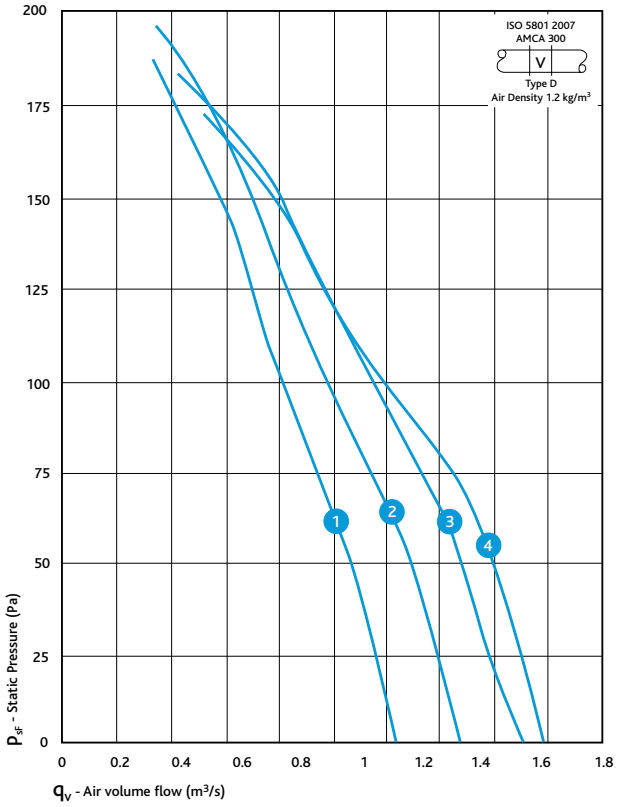
ELECTRICAL & SOUND

Curve No	Unit Code	Blade Angle°	Speed RPM	Unit kg	A.V. Set	Motor frame size	1 Phase (230V-50Hz) Motor kW	amps	FLC amps	3 Phase (400V-50Hz) SC kW	Motor amps	FLC amps	In-duct inlet sound power levels dB re 1pW Octave band mid frequency Hz SC 125	250	500	1K	2K	4K	8K	Breakout dBA@3m
450mm Ø - 4 Pole/1440rpm																				
1	AXB45M-41*A	20°	1410	32	NAV2	71	0.37	2.9	11.6	0.37	1.06	3.5	89	82	81	78	71	64	55	57
2	AXB45M-42*A	25°	1410	32	NAV2	71	0.37	2.9	11.6	0.37	1.06	3.5	87	82	79	78	73	66	58	56
3	AXB45M-43*A	30°	1410	32	NAV2	71	0.37	2.9	11.6	0.37	1.06	3.5	90	81	80	80	75	69	61	57
4	AXB45M-45*A	35°	1410	32	NAV2	71	0.37	2.9	11.6	0.37	1.06	3.5	95	83	81	81	75	70	63	60
450mm Ø - 2 Pole/2800rpm																				
5	AXB45C-21*A	25°	2700	38	NAV2	80	1.1	7.5	35	1.1	2.5	14	86	97	90	93	87	80	74	69
6	AXB45M-21*A	20°	2700	38	NAV2	80	1.1	7.5	35	1.1	2.5	14	88	95	95	97	89	83	77	72
7	AXB45M-22*A	25°	2800	38	NAV2	90	-	-	-	1.5	3.25	17.8	89	82	81	78	71	64	55	72

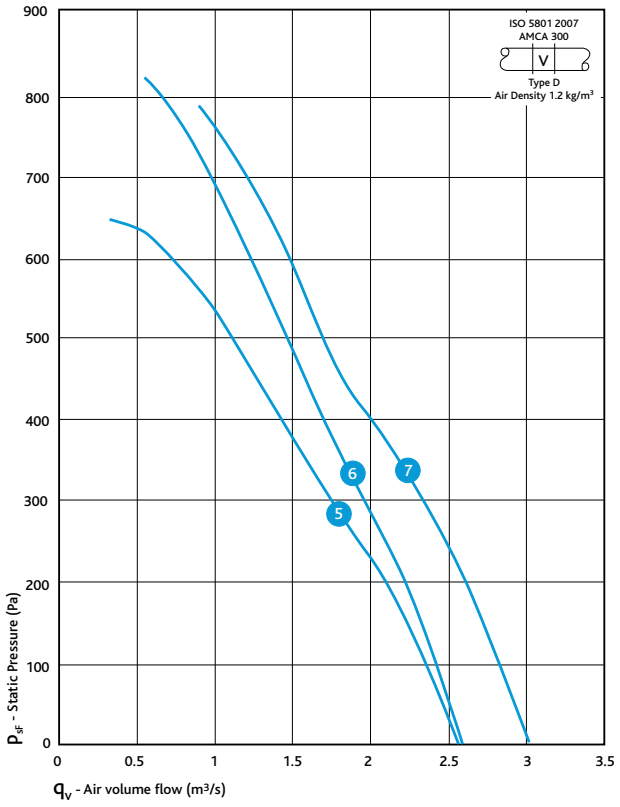
Notes relating to the table: The electrical and sound information in the table is nominal. Breakout dBA@3m is spherical, free field.
Start currents (sc) are DOL other than for motors of 4kW and above which are Star Delta (T).
*Insert number for correct phase. 1 = 1 phase, 3 = 3 phase.
For ancillaries please refer to page 310.

PERFORMANCE - BIFURCATED AXIAL FLOW UNITS - 500MM Ø

500mm Ø 4 Pole/1440 rpm



500mm Ø 2 Pole/2800 rpm



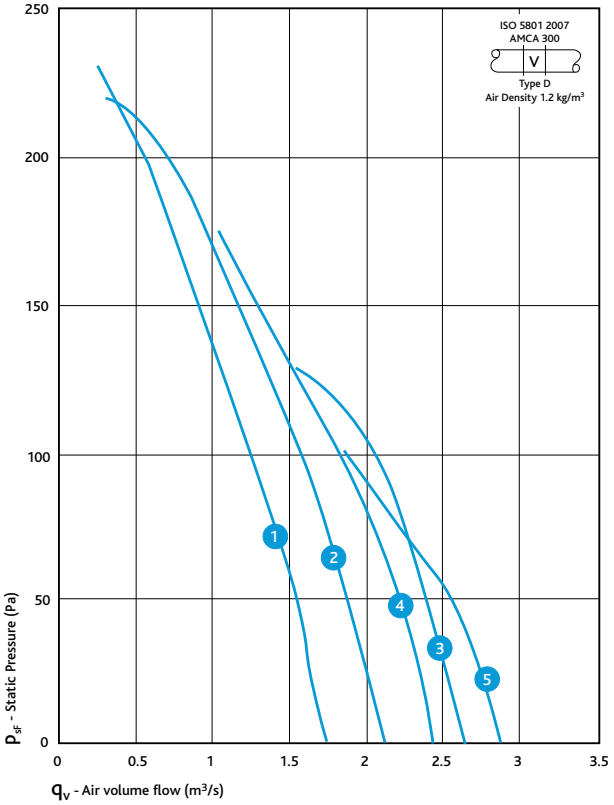
ELECTRICAL & SOUND

Curve No	Unit Code	Blade Angle°	Speed RPM	Unit kg	A.V. Set	Motor frame size	1 Phase (230V-50Hz) Motor kW	FLC amps	SC amps	3 Phase (400V-50Hz) Motor kW	FLC amps	SC amps	In-duct inlet sound power levels dB re 1pW Octave band mid frequency Hz 125	250	500	1K	2K	4K	8K	Breakout dBA3m
500mm Ø - 4 Pole/1440rpm																				
1	AXB50M-41*A	20°	1350	43	NAV2	80	0.75	5.7	19.8	0.75	2	9	89	81	80	81	76	68	60	57
2	AXB50M-42*A	25°	1350	43	NAV2	80	0.75	5.7	19.8	0.75	2	9	84	81	80	81	76	70	62	57
3	AXB50M-43*A	30°	1350	43	NAV2	80	0.75	5.7	19.8	0.75	2	9	99	84	82	83	78	71	65	62
4	AXB50M-45*A	35°	1350	43	NAV2	80	0.75	5.7	21.5	0.75	2	9	97	88	83	84	79	74	70	62
500mm Ø - 2 Pole/2800rpm																				
5	AXB50E-213A	30°	2857	49	NAV2	90	-	-	-	2.2	4.3	32	86	93	97	99	93	85	79	74
6	AXB50M-213A	20°	2857	49	NAV2	90	-	-	-	2.2	4.3	32	86	93	96	100	93	86	81	74
7	AXB50M-223A	25°	2857	49	NAV2	90	-	-	-	2.2	4.3	32	89	96	98	100	92	86	82	75

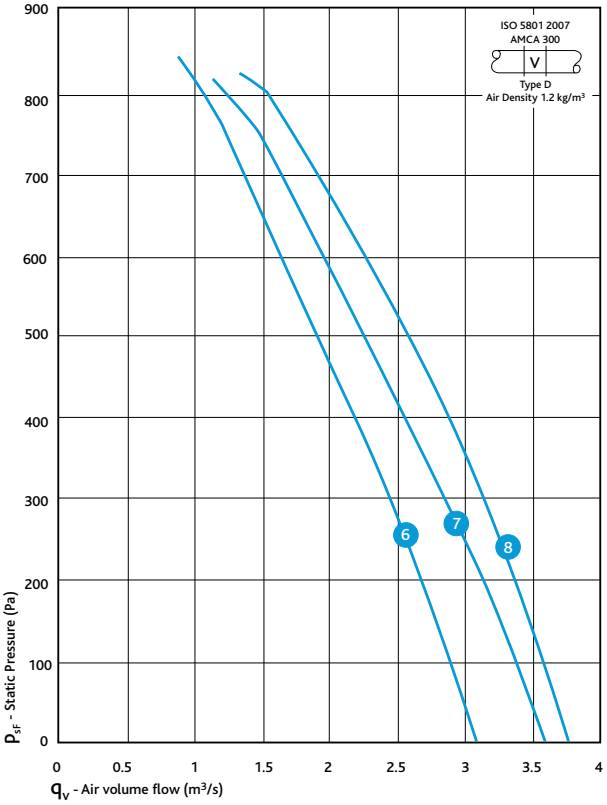
Notes relating to the table: The electrical and sound information in the table is nominal. Breakout dBA@3m is spherical, free field.
Start currents (sc) are DOL other than for motors of 4kW and above which are Star Delta (T).
*Insert number for correct phase. 1 = 1 phase, 3 = 3 phase.
For ancillaries please refer to page 310.

PERFORMANCE - BIFURCATED AXIAL FLOW UNITS - 560MM Ø

560mm Ø 4 Pole/1440 rpm



560mm Ø 2 Pole/2800 rpm



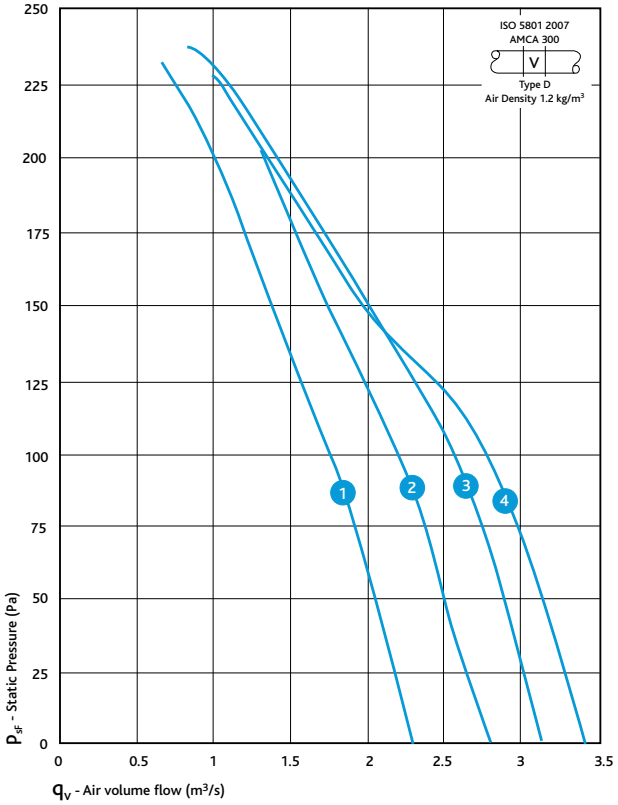
ELECTRICAL & SOUND

Curve No	Unit Code	Blade Angle°	Speed RPM	Unit kg	A.V. Set	Motor frame size	1 Phase (230V-50Hz) Motor kW	FLC amps	SC amps	3 Phase (400V-50Hz) Motor kW	FLC amps	SC amps	In-duct inlet sound power levels dB re 1pW Octave band mid frequency Hz 125	250	500	1K	2K	4K	8K	Breakout dBA@3m
560mm Ø - 4 Pole/1440rpm																				
1	AXB56M-41*A	20°	1350	43	NAV2	80	0.75	5.5	19.8	0.75	2	9	76	79	91	91	83	79	69	66
2	AXB56M-42*A	25°	1350	43	NAV2	80	0.75	5.5	19.8	0.75	2	9	84	75	85	86	83	80	72	61
3	AXB56M-43*A	30°	1350	43	NAV2	80	0.75	5.5	19.8	0.75	2	9	79	73	85	87	82	80	74	62
4	AXB56M-45*A	35°	1350	43	NAV2	80	0.75	5.5	19.8	0.75	2	9	79	77	86	89	83	81	78	63
5	AXB56D-45*A	45°	1350	43	NAV2	80	0.75	5.8	19.8	0.75	2	9	83	76	87	89	84	81	77	64
560mm Ø - 2 Pole - 2800rpm																				
6	AXB56M-213A	20°	2880	55	NAV2	100	-	-	-	3	6.7	50	91	96	101	103	96	89	84	78
7	AXB56M-223A	25°	2880	55	NAV2	100	-	-	-	3	6.7	50	86	94	106	114	102	98	95	87
8	AXB56H-223A	30°	2890	55	NAV2	112	-	-	-	4	8	T23	92	96	102	103	97	92	86	78

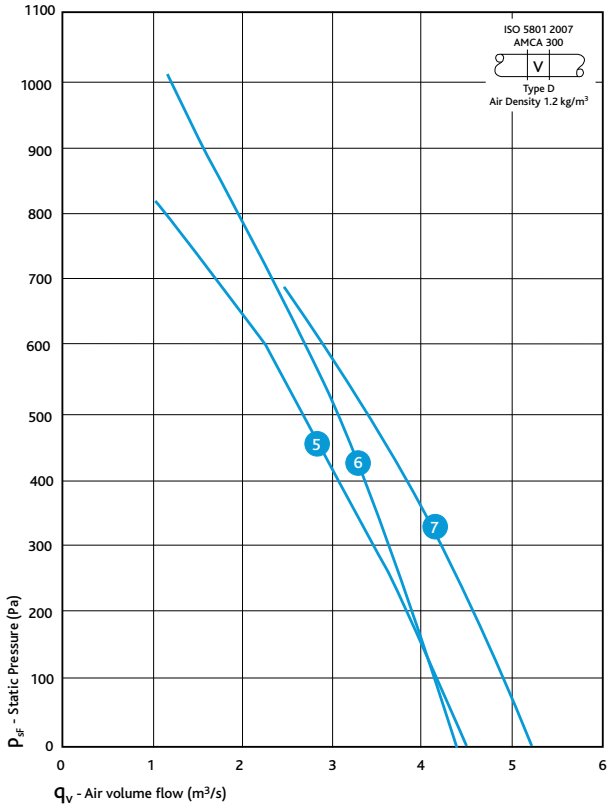
Notes relating to the table: The electrical and sound information in the table is nominal. Breakout dBA@3m is spherical, free field.
Start currents (sc) are DOL other than for motors of 4kW and above which are Star Delta (T).
*Insert number for correct phase. 1 = 1 phase, 3 = 3 phase.
For ancillaries please refer to page 310.

PERFORMANCE - BIFURCATED AXIAL FLOW UNITS - 630MM Ø

630mm Ø 4 Pole/1440 rpm



630mm Ø 2 Pole/2800 rpm



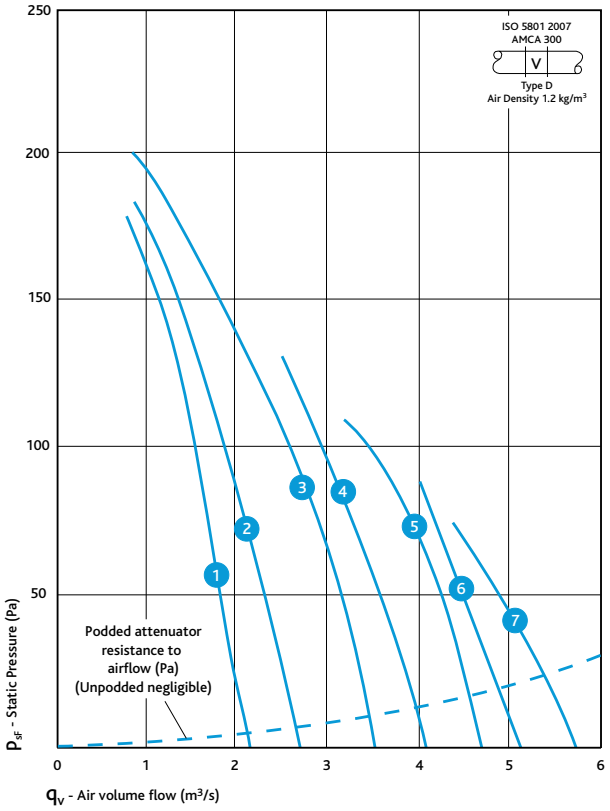
ELECTRICAL & SOUND

Curve No	Unit Code	Blade Angle°	Speed RPM	Unit kg	A.V. Set	Motor frame size	1 Phase (230V-50Hz) Motor kW	FLC amps	SC amps	3 Phase (400V-50Hz) Motor kW	FLC amps	SC amps	In-duct inlet sound power levels dB re 1pW Octave band mid frequency Hz 125	250	500	1K	2K	4K	8K	Breakout dBA@3m
630mm Ø - 4 Pole/1440rpm																				
1	AXB63M-41*A	20°	1437	80	NAV2	90	1.1	9	30	1.1	2.5	12	86	85	86	87	80	74	65	62
2	AXB63M-42*A	25°	1437	80	NAV2	90	1.1	9	30	1.1	2.5	12	90	85	86	86	80	76	69	62
3	AXB63M-43*A	30°	1437	80	NAV2	90	1.1	9	30	1.1	2.5	12	93	85	88	88	81	77	71	64
4	AXB63M-45*A	35°	1437	80	NAV2	90	1.1	9	30	1.1	2.5	12	95	89	90	89	82	78	73	66
630mm Ø - 2 Pole/2800rpm																				
5	AXB63G-213	25°	2880	100	NAV5	100	-	-	-	3	6.7	50	91	103	98	102	99	93	86	77
6	AXB63M-213	20°	2859	105	NAV5	112	-	-	-	4	8.4	T24	95	102	101	102	99	92	87	78
7	AXB63G-223	30°	2859	105	NAV5	112	-	-	-	4	8.4	T24	91	103	100	104	100	94	88	79

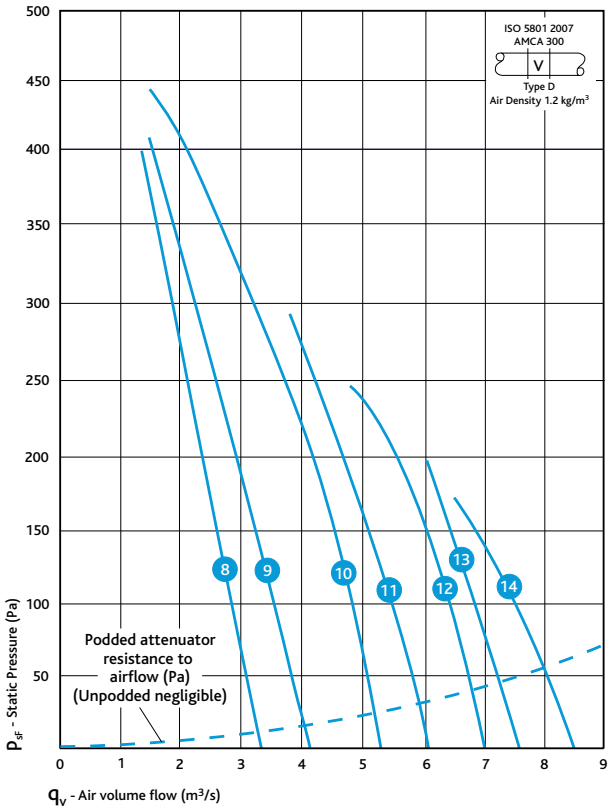
Notes relating to the table: The electrical and sound information in the table is nominal. Breakout dBA@3m is spherical, free field.
Start currents (sc) are DOL other than for motors of 4kW and above which are Star Delta (T).
*Insert number for correct phase. 1 = 1 phase, 3 = 3 phase.
For ancillaries please refer to page 310.

PERFORMANCE - BIFURCATED AXIAL FLOW UNITS - 710MM Ø

710mm Ø 6 Pole/960 rpm



710mm Ø 4 Pole/1440 rpm



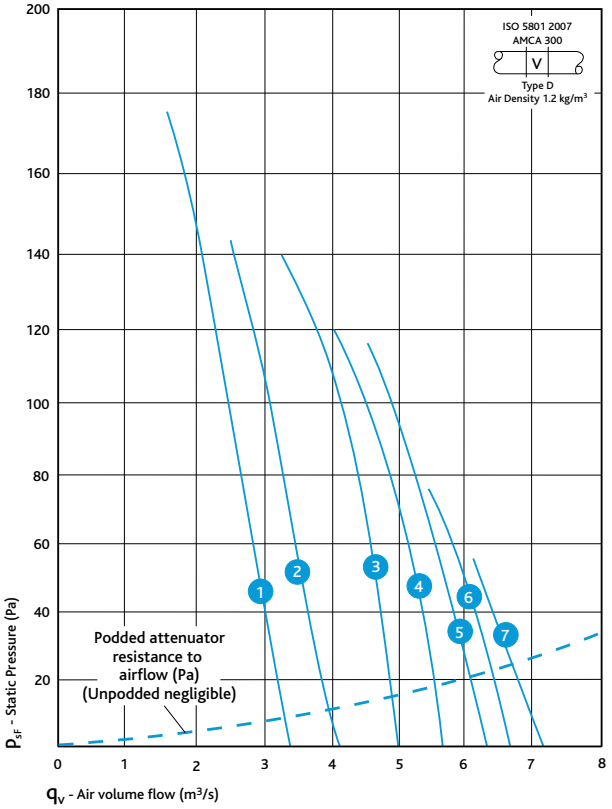
ELECTRICAL & SOUND

Curve No	Unit Code	Blade Angle°	Speed RPM	Unit kg	A.V. Set	Motor frame size	1 Phase (230V-50Hz) Motor kW	FLC amps	SC amps	3 Phase (400V-50Hz) Motor kW	FLC amps	SC amps	In-duct inlet sound power levels dB re 1pW Octave band mid frequency Hz 125	250	500	1K	2K	4K	8K	Breakout dBA@3m
710mm Ø - 6 Pole/960rpm																				
1	AXB71LF-611	10°	960	103	NAV5	80	0.37	2.9	11.6	-	-	-	73	82	83	84	80	75	66	59
2	AXB71LF-623	15°	960	107	NAV5	90	-	-	-	0.75	2.4	9	75	85	84	83	79	75	67	60
3	AXB71LF-633	20°	960	107	NAV5	90	-	-	-	0.75	2.4	9	77	89	84	83	79	76	68	61
4	AXB71LF-643	25°	960	110	NAV5	90	-	-	-	1.1	4.3	11.6	80	88	85	83	79	76	68	61
5	AXB71LF-653	30°	960	110	NAV5	90	-	-	-	1.1	4.3	11.6	84	87	87	84	79	75	69	62
6	AXB71LF-663	35°	960	124	NAV5	112	-	-	-	2.2	5.9	23.6	86	89	87	85	80	76	71	63
7	AXB71LF-673	40°	960	124	NAV5	112	-	-	-	2.2	5.9	23.6	88	91	88	86	80	77	72	64
710mm Ø - 4 Pole/1440rpm																				
8	AXB71LF-413	10°	1420	110	NAV5	90	-	-	-	1.5	3.6	18.9	83	92	93	93	89	84	75	69
9	AXB71LF-423	15°	1420	112	NAV5	100	-	-	-	2.2	4.9	27	84	95	93	93	89	85	76	69
10	AXB71LF-433	20°	1420	112	NAV5	100	-	-	-	2.2	4.9	27	86	98	93	92	88	85	77	70
11	AXB71LF-443	25°	1420	112	NAV5	112	-	-	-	4	8.4	T18.5	89	97	94	93	89	86	78	70
12	AXB71LF-453	30°	1420	112	NAV5	112	-	-	-	4	8.4	T18.5	93	97	96	94	89	86	79	71
13	AXB71LF-463	35°	1440	153	NAV3	132	-	-	-	5.5	11.3	T27.1	95	98	97	95	89	86	81	72
14	AXB71LF-473	40°	1440	153	NAV3	132	-	-	-	5.5	11.3	T27.1	98	100	97	95	90	86	82	73

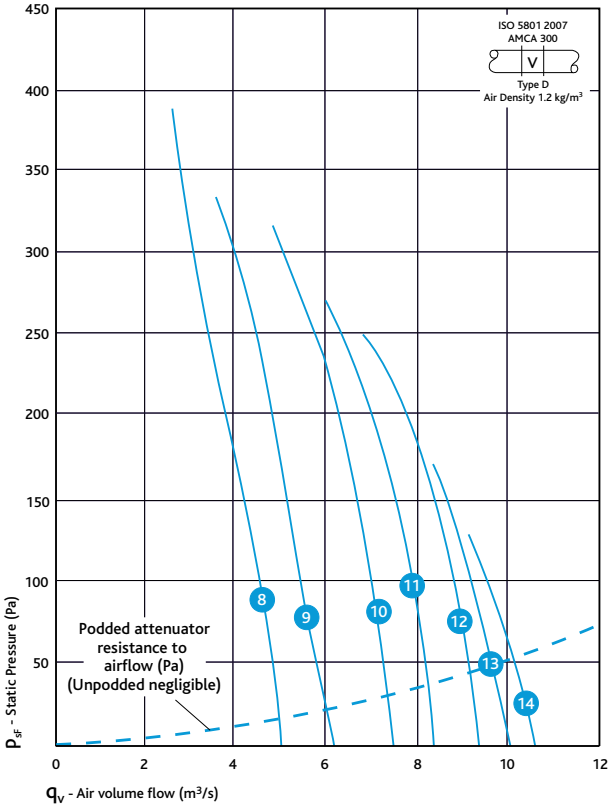
Notes relating to the table: The electrical and sound information in the table is nominal. Breakout dBA@3m is spherical, free field.
Start currents (sc) are DOL other than for motors of 4kW and above which are Star Delta (T).
For ancillaries please refer to page 310.

PERFORMANCE - BIFURCATED AXIAL FLOW UNITS - 800MM Ø

800mm Ø 6 Pole/960 rpm



800mm Ø 4 Pole/1440 rpm



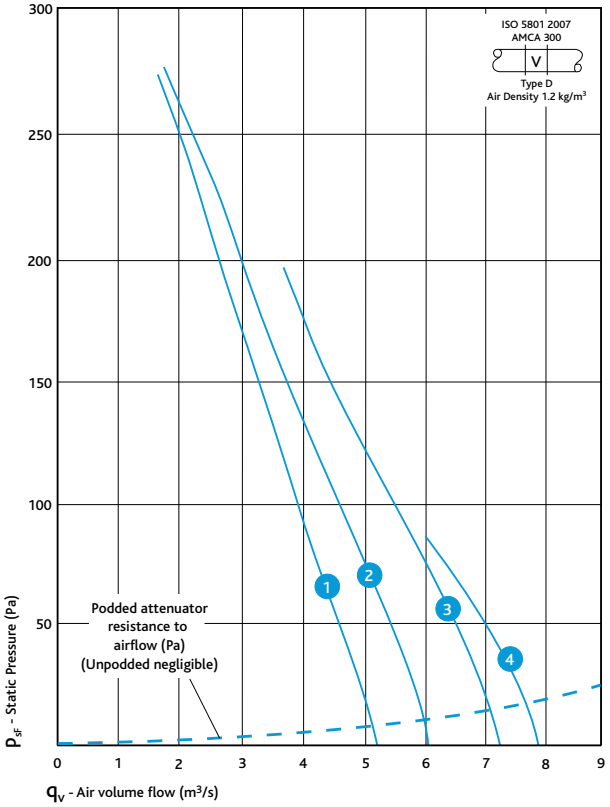
ELECTRICAL & SOUND

Curve No	Unit Code	Blade Angle°	Speed RPM	Unit kg	A.V. Set	Motor frame size	1 Phase (230V-50Hz) Motor kW	FLC amps	SC amps	3 Phase (400V-50Hz) Motor kW	FLC amps	SC amps	In-duct inlet sound power levels dB re 1pW Octave band mid frequency Hz 125	250	500	1K	2K	4K	8K	Breakout dBA@3m
800mm Ø - 6 Pole/960rpm																				
1	AXB80LF-611A	10°	960	143	NAV3 80	0.37	2.9	11.6	-	-	-	73	82	83	84	80	75	66	63
2	AXB80LF-623A	15°	960	147	NAV3 90	-	-	-	1.1	4.3	11.6	75	85	84	83	79	75	67	62
3	AXB80LF-633A	20°	960	147	NAV3 90	-	-	-	1.1	4.3	11.6	77	89	84	83	79	76	68	62
4	AXB80LF-643A	25°	960	152	NAV3 112	-	-	-	2.2	5.9	23.6	80	88	85	83	79	76	68	63
5	AXB80LF-653A	30°	960	152	NAV3 112	-	-	-	2.2	5.9	23.6	84	87	87	84	79	75	69	64
6	AXB80LF-663A	35°	960	193	NAV4 132	-	-	-	3	6.4	35.2	86	89	87	85	80	76	71	65
7	AXB80LF-673A	40°	960	193	NAV4 132	-	-	-	3	6.4	35.2	88	91	88	86	80	77	72	66
800mm Ø - 4 Pole/1440rpm																				
8	AXB80LF-413A	10°	1420	147	NAV3 90	-	-	-	1.5	3.6	18.9	86	92	97	96	92	87	80	72
9	AXB80LF-423A	15°	1430	152	NAV3 100	-	-	-	3	6.8	42.8	86	92	97	95	92	88	81	72
10	AXB80LF-433A	20°	1420	164	NAV3 112	-	-	-	4	8.4	T18.5	87	92	97	94	91	88	82	71
11	AXB80LF-443A	25°	1440	193	NAV4 132	-	-	-	5.5	10.7	T25.7	91	95	98	95	91	88	83	72
12	AXB80LF-453A	30°	1440	205	NAV4 132	-	-	-	7.5	14.5	T34.8	94	98	98	96	91	88	84	73
13	AXB80LF-463A	35°	1460	257	NAV4 160	-	-	-	11	20	T40.0	100	100	99	97	93	89	86	74
14	AXB80LF-473A	40°	1460	257	NAV4 160	-	-	-	11	20	T40.0	105	102	100	98	94	90	89	76

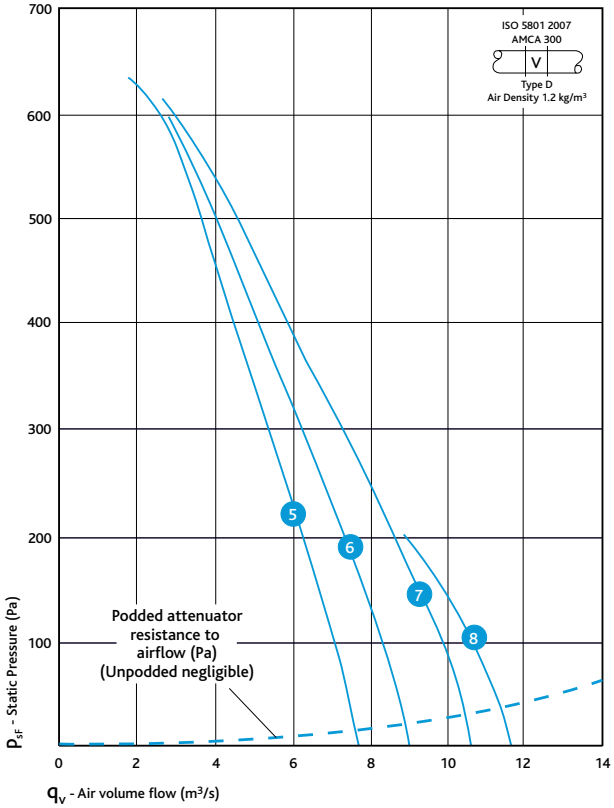
Notes relating to the table: The electrical and sound information in the table is nominal. Breakout dBA@3m is spherical, free field.
Start currents (sc) are DOL other than for motors of 4kW and above which are Star Delta (T).
For ancillaries please refer to page 310.

PERFORMANCE - BIFURCATED AXIAL FLOW UNITS - 900MM Ø

900mm Ø 6 Pole/920 rpm



900mm Ø 4 Pole/1440 rpm



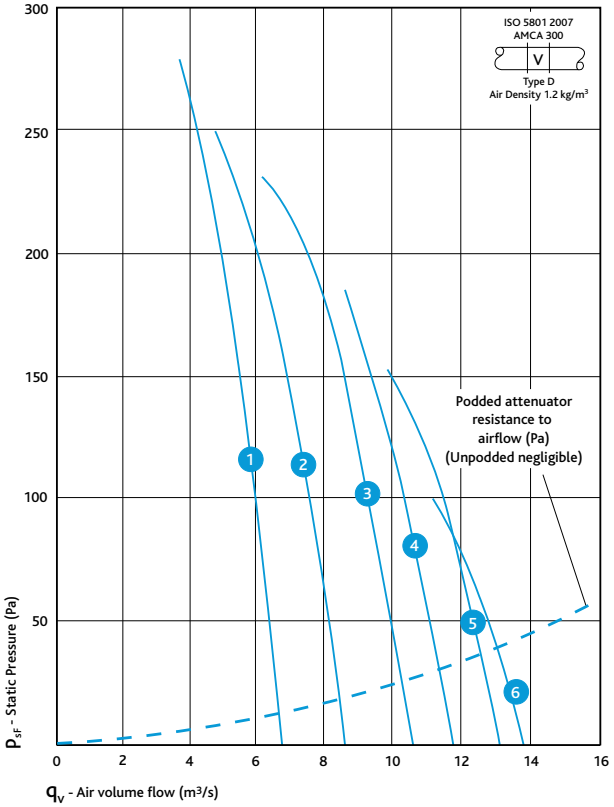
ELECTRICAL & SOUND

Curve No	Unit Code	Blade Angle°	Speed RPM	Unit kg	A.V. Set	Motor frame size	3 Phase (400V-50Hz) Motor kW	FLC amps	SC amps	In-duct inlet sound power levels dB re 1pW Octave band mid frequency Hz 125	250	500	1K	2K	4K	8K	Breakout dBA@3m
900mm Ø - 6 Pole/920rpm																	
1	AXB90LF-613A	10°	920	200	NAV4	90	1.1	4.3	11.6	83	90	91	91	86	84	81	67
2	AXB90LF-623A	15°	945	214	NAV4	112	2.2	5.9	23.6	86	92	93	92	87	84	81	68
3	AXB90LF-633A	20°	945	214	NAV4	112	2.2	5.9	T23.6	88	94	96	93	87	85	82	71
4	AXB90LF-653A	30°	960	255	NAV4	132	4	9	T16.2	93	96	95	93	86	82	79	70
900mm Ø - 4 Pole/1440rpm																	
5	AXB90LF-413A	10°	1420	214	NAV4	112	4	8.4	T18.5	93	99	100	100	96	94	91	76
6	AXB90LF-423A	15°	1440	243	NAV4	132	5.5	10.7	T25.7	95	102	103	101	96	94	91	78
7	AXB90LF-433A	20°	1440	255	NAV4	132	7.5	14.5	T34.8	97	104	105	103	97	94	91	80
8	AXB90LF-453A	30°	1460	307	NAV6	160	11	20	T40.0	103	105	104	102	95	92	88	79

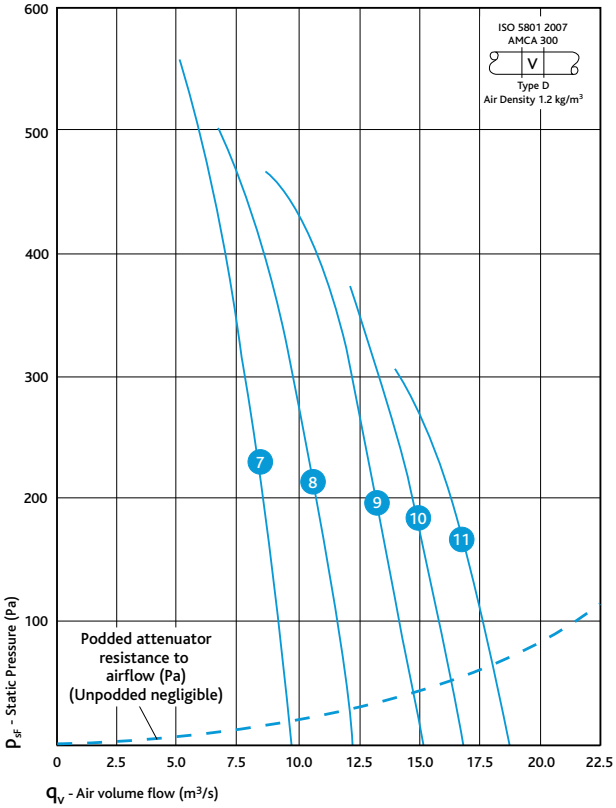
Notes relating to the table: The electrical and sound information in the table is nominal. Breakout dBA@3m is spherical, free field.
Start currents (sc) are DOL other than for motors of 4kW and above which are Star Delta (T).
For ancillaries please refer to page 310.

PERFORMANCE - BIFURCATED AXIAL FLOW UNITS - 1000MM Ø

1000mm Ø 6 Pole/920 rpm



1000mm Ø 4 Pole/1440 rpm

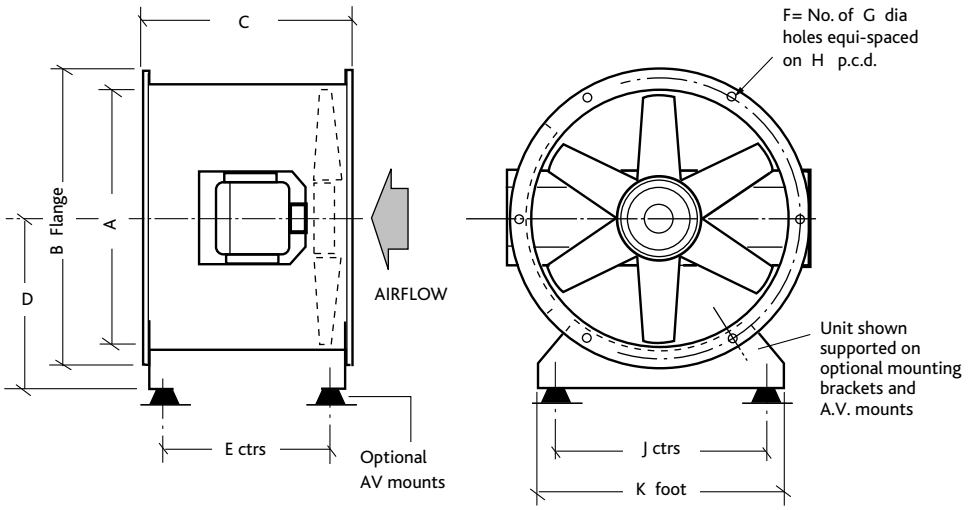


ELECTRICAL & SOUND

Curve No	Unit Code	Blade Angle°	Speed RPM	Unit kg	A.V. Set	Motor frame size	3 Phase (400V-50Hz) Motor kW	FLC amps	SC amps	In-duct inlet sound power levels dB re 1pW Octave band mid frequency Hz 125	250	500	1K	2K	4K	8K	Breakout dBA3m
1000mm Ø - 6 Pole/920rpm																	
1	AXB100LF-613A	10°	945	258	NAV4	112	2.2	5.9	23.6	85	89	92	92	89	86	77	68
2	AXB100LF-623A	15°	950	287	NAV6	132	3	6.6	39.6	86	92	92	90	87	84	75	67
3	AXB100LF-633A	20°	960	299	NAV6	132	4	9	T16.2	87	94	93	89	85	83	72	68
4	AXB100LF-643A	25°	950	299	NAV6	132	5.5	12.3	T21.5	91	95	93	90	86	84	76	68
5	AXB100LF-653A	30°	970	371	NAV49	160	7.5	16	T36.8	95	95	94	91	87	85	79	69
6	AXB100LF-663A	35°	970	371	NAV49	160	7.5	16	T36.8	102	98	95	93	89	86	80	71
1000mm Ø - 4 Pole/1440rpm																	
7	AXB100LF-413A	10°	1440	299	NAV6	132	7.5	14.5	T34.8	94	98	101	101	98	95	87	77
8	AXB100LF-423A	15°	1460	351	NAV49	160	11	20	T40.0	95	101	101	99	96	94	84	77
9	AXB100LF-433A	20°	1460	351	NAV49	160	11	20	T40.0	96	103	102	98	94	92	81	77
10	AXB100LF-443A	25°	1465	371	NAV49	160	15	27	T65.0	100	104	103	99	95	93	85	78
11	AXB100LF-453A	30°	1465	414	NAV50	180	18.5	34	T71.4	104	105	103	100	96	94	88	79

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 DOL other than for motors of 4kW and above which are Star Delta (T).
For ancillaries please refer to page 310.

DIMENSIONS - AXUS BIFURCATED AXIAL FAN



DIMENSIONS (mm) & WEIGHTS

Code	A	B	C	D	E	F	G	H	J	K	Max. Weight Kg
AXB31	315	400	500	210	420	8	12	355	220	270	22
AXB35	350	430	500	240	420	8	12	395	250	300	25
AXB40	400	490	530	270	450	8	12	450	290	340	31
AXB45	450	540	530	300	450	8	12	500	330	380	38
AXB50	500	608	605	340	525	12	12	560	380	430	49
AXB56	560	670	605	370	525	12	12	620	420	470	55
AXB63	630	740	630	430	550	12	12	690	500	550	84
AXB71	710	795	700	470	620	16	12	770	540	600	153
AXB80	800	885	950	540	870	16	12	860	590	650	257
AXB90	900	1000	950	600	870	16	15	970	670	750	307
AXB100	1000	1100	950	670	840	16	15	1070	770	850	414

CONSULTANTS SPECIFICATION

FAN 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 AXUS Bifurcated (AXB) axial flow fan as manufactured by Nuaire, with motor out of the airstream. The units shall be manufactured from galvanised steel to BS EN10142 1991. Wiring must be direct to the motor terminal box by the contractor.

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 and shall be foot mounted TEFV type with IP55 enclosures and class F insulation in accordance with BS4999 part 20. They shall have sealed for life ball bearings. 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 airstream temperatures up to 90°C. Optional high temperature versions are suitable in airstream temperatures of up to 230°C.

The impeller blades shall be of special aero-foil section giving excellent performance and low noise characteristic manufactured from cast aluminium alloy. 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 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.

CONTROL SPECIFICATION

The fan unit shall be supplied with one of the following control options (only available for three phase fan units):-

1. ECOSMART CONTROLS

The compact Ecosmart control system complete with all necessary controls to facilitate the operation of the ventilation system. It shall be come complete with an integral factory fitted Ecosmart PCB which will control the fan unit within the desired design parameters and provide the interface between all external control devices and the unit itself.

The fan unit shall have the following energy saving components integrally mounted, pre-wired to interface with the purpose made PCB, all components pre-wired, configured and factory fitted by the manufacturer: -

- Integral Frequency inverter/speed controller.
- Integral maximum and minimum speed adjustment for commissioning.
- Integral adjustable run on timer.
- Integral BMS interfaces – 0-10V speed adjustment.
- Integral BMS interfaces – Volt free failure and status indication.
- Integral background ventilation switch (trickle switch).
- Multiple IDC sockets for interconnection of sensors or fans using pre-plugged 4-core low voltage cable.

ECOSMART SYSTEM OPERATION

The Ecosmart controls will enable the unit to automatically vary its speed as it receives signals from one of the interconnected sensors. When the signal is received the fan shall either increase speed gradually until the required level is achieved or it will work on a trickle and boost principle. This will then move the fan duty point from trickle/background ventilation rate to the required boost ventilation rate. Both the trickle and boost rates are infinitely variable, easy to adjust and remove the need of a main balancing damper.

2. BMS INTERFACES

The fan unit shall be provided with the following integrated BMS interfaces.

- 0 - 10 volt contacts to provide a full BMS interface. This will enable the following functions:-
  Switch the unit on/off.
  Switch from low speed to high speed.
  Full speed control facility.

- 2 No. Volt free contacts to provide fan run and failure indication to provide system status.

- An integrated commissioning/speed control to accurately commission the system, with minimum and maximum speeds easily adjusted via a miniature dial, as recommended in Part L. This will enable the unit to be configured to run between set parameters thus saving motor power and limiting noise.

3. COMMISSIONING SET UP

The fan unit shall be provided with an integrated commissioning/speed control to accurately commission the system, as recommended in Part L, minimum and maximum speeds easily adjusted via miniature dial. The commissioning set up facility directly controls the integrated speed control/frequency inverter.

4. STANDARD CONTROLS

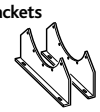
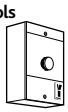
The unit shall be provided with a standard speed control or starter in accordance with the manufacturer's recommendations.

Bifurcated fans have a 3 year warranty.
Ecosmart Bifurcated fans have a 5 year warranty.

All equipment shall be as manufactured by Nuaire Ltd.

ANCILLARIES

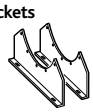
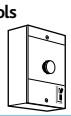
AXUS AXIAL FANS

Ancillary	Code (mm)	AX25 250	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														
Mounting Brackets 	Mounting brackets supplied as pair. manufactured from heavy gauge steel.	CMB25	CMB31	CMB35	CMB40	CMB45	CMB50	CMB56	CMB63	CMB71	CMB80	CMB90	CMB100	CMB112	CMB125
Matching Flange 	Flange supplied as single. Manufactured from galvanised steel.	CMF25	CMF31	CMF35	CMF40	CMF45	CMF50	CMF56	CMF63	CMF71	CMF80	CMF90	CMF100	CMF112	CMF125
Flexible Connector 	Circular without flange. Flexible duct material is flameproof and heat resistant up to 132°C. The material is airtight and waterproof.	CFC25	CFC31	CFC35	CFC40	CFC45	CFC50	CFC56	CFC63	CFC71	CFC80	CMC90	CMC100	CMC112	CMC125
Anti-vibration Mounts 	Resiliant rubber, for fan only.	**For further details on AV Mounts please contact Nuaire**													
Acoustic Jacket 	Acoustic material laminated with 25mm foam. Complete with straps/buckles for security.	**For further details on Acoustic Jackets please contact Nuaire**													
Attenuator 	Standard, Long, podded & long podded options.	CA25S CA25L CA25P CA25LP	CA31S CA31L CA31P CA31LP	CA35S CA35L CA35P CA35LP	CA40S CA40L CA40P CA40LP	CA45S CA45L CA45P CA45LP	CA50S CA50L CA50P CA50LP	CA56S CA56L CA56P CA56LP	CA63S CA63L CA63P CA63LP	CA71S CA71L CA71P CA71LP	CA80S CA80L CA80P CA80LP	CA90S CA90L CA90P CA90LP	CA100S CA100L CA100P CA100LP	CA112S CA112L CA112P CA112LP	CA125S CA125L CA125P CA125LP
Guard 	Manufactured in heavy gauge galvanised steel with acid zinc plated steel mesh.	CDG25	CDG31	CDG35	CDG40	CDG45	CDG50	CDG56	CDG63	CDG71	CDG80	CDG90	CDG100	CDG112	CDG125
Inlet Cone 	manufactured in heavy gauge galvanised steel with a single bolted flange.	CIC25	CIC31	CIC35	CIC40	CIC45	CIC50	CIC56	CIC63	CIC71	CIC80	CIC90	CIC100	CIC112	CIC125
Backdraft Damper 	Gravity operated damper manufactured from heavy gauge galvanised steel with pair of bolted flanges.	CBD25	CBD31	CBD35	CBD40	CBD45	CBD50	CBD56	CBD63	CBD71	CBD80	CBD90	CBD100	CBD112	CBD125
Controls 	Choice of Inverter, electronic or transformer speed controls available.	**For further details on Controls please contact Nuaire**													

See page 310 for ancillaries

ANCILLARIES

BIFURCATED AXIAL FANS

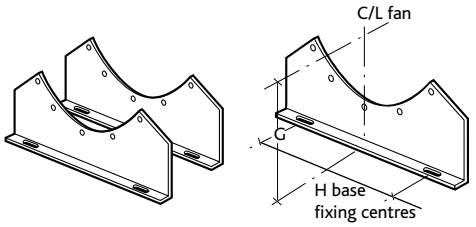
Ancillary	Code (mm)	AXB31 315	AXB35 350	AXB40 400	AXB45 450	AXB50 500	AXB56 560	AXB63 630	AXB71 710	AXB80 800	AXB90 900	AXB100 1000
	Description											
Mounting Brackets 	Mounting brackets supplied as pair. manufactured from heavy gauge steel.	CMB31	CMB35	CMB40	CMB45	CMB50	CMB56	CMB63	CMB71	CMB80	CMB90	CMB100
Matching Flange 	Flange supplied as single. Manufactured from galvanised steel.	CMF31	CMF35	CMF40	CMF45	CMF50	CMF56	CMF63	CMF71	CMF80	CMF90	CMF100
Flexible Connector 	Circular without flange. Flexible duct material is flameproof and heat resistant up to 132°C. The material is airtight and waterproof.	CFC31	CFC35	CFC40	CFC45	CFC50	CFC56	CFC63	CFC71	CFC80	CFC90	CFC100
Anti-vibration Mounts 	Resiliant rubber, for fan only.	For further details on AV Mounts please contact Nuaire										
Attenuator 	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
Guard 	Manufactured in heavy gauge galvanised steel with acid zinc plated steel mesh.	CDG31	CDG35	CDG40	CDG45	CDG50	CDG56	CDG63	CDG71	CDG80	CDG90	CDG100
Inlet Cone 	manufactured in heavy gauge galvanised steel with a single bolted flange.	CIC31	CIC35	CIC40	CIC45	CIC50	CIC56	CIC63	CIC71	CIC80	CIC90	CIC100
Backdraft Damper 	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
Controls 	Choice of Inverter.	For further details on Controls please contact Nuaire										

See page 310 for ancillaries

ANCILLARIES FOR AXIAL FANS - DETAILS

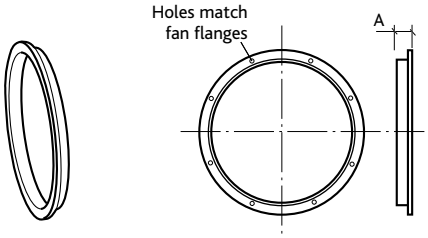
Mounting Brackets

The AXUS mounting brackets are manufactured from heavy gauge galvanised steel and are supplied in pairs. (See table 1 for dimensions).
Typical Code: CMB100 (100 = fan diameter in cm).



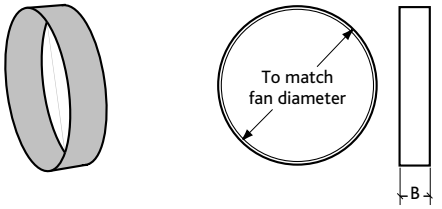
Matching Flange (Single)

Manufactured from galvanised steel matching flanges are supplied individually. (See table 1 for dimensions and weights).
Typical code: CMF100 (100 = fan diameter in cm).



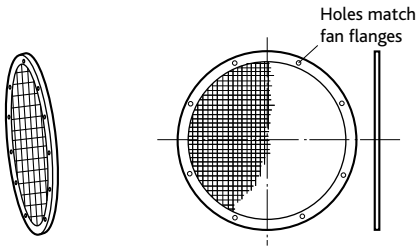
Flexible Connector (Single)

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.
(See table 1 for dimensions and weights).
(Supplied complete with fixing straps).
Typical Code: CFC100 (100 = fan diameter in cm) - 132°C.
CFCH100 (100 = fan diameter in cm) - 400°C.



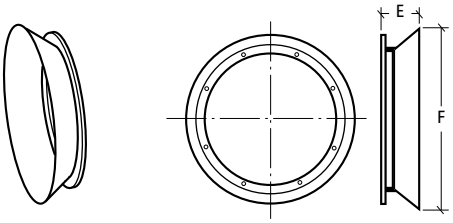
Guard (Single)

Manufactured from heavy gauge galvanised steel and acid zinc plated steel mesh.
(See table 1 for dimensions and weights). Standard Accessory Losses (k).
Flat type • Finger guard 0.4.
Typical Code: CGD100 (100 = fan diameter in cm)
Pressure Drop (Pa) = 0.6 x k x Velocity (m/s).



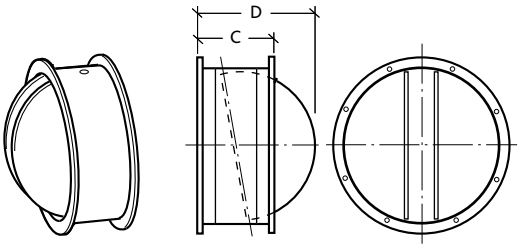
Inlet Cone (Single)

Manufactured in heavy gauge galvanised steel with a single bolted flange.
(See table 1 for dimensions and weights).
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.
(See table 1 for dimensions and weights).
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).



ANCILLARIES FOR AXIAL FANS - DETAILS CONT.

TABLE 1 DIMENSIONS (mm) & WEIGHTS

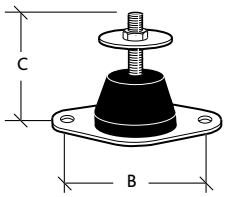
Fan Ø	A	B	C	D	E	F	G	H	Inlet Guard Weight Kg	B/draught cone Weight Kg	Damper Weight Kg
250mm	65	150	350	350	85	355	170	150	0.4	1.5	6
310mm	65	150	350	350	85	405	210	220	0.5	2	7.5
350mm	65	150	350	350	90	460	240	250	1	2	9
400mm	65	150	350	350	90	520	270	290	1.5	3	11
450mm	65	150	350	350	90	580	300	330	1.7	4	14
500mm	65	150	350	350	100	650	340	380	2.3	5	16.5
560mm	65	150	350	360	100	700	370	420	2.8	6	20
630mm	65	150	350	400	130	830	430	500	3.2	9	22.5
710mm	65	150	350	440	170	920	470	540	3.7	11	27.5
800mm	65	150	350	470	200	1050	540	590	4	13	35
900mm	65	150	350	520	220	1180	600	670	7	20	55
1000mm	65	150	350	580	230	1300	670	770	7	23	66.5
1120mm	65	150	350	920	260	1450	750	870	8	32	80
1250mm	65	150	350	985	300	1600	830	920	8	40	88

Anti Vibration Mountings

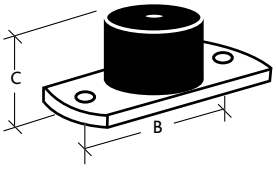
Supplied as a set of 4. To select match isolated assembly weight to max Supporting weight shown on right.
Typical code: NAV1 - Resilient Rubber NAV49 - Spring type.

DIMENSIONS (mm) & WEIGHTS

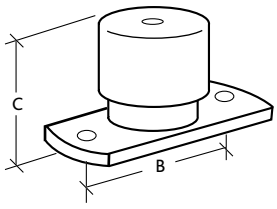
Code	Type	B	C	Max Supporting Weight Kg
NAV1	Rubber	30	50	20.0
NAV2	Rubber	40	75	80.0
NAV3	Rubber	40	75	180.0
NAV4	Rubber	40	75	260.0
NAV5	Rubber	40	75	130.0
NAV6	Rubber	50	100	320.0
NAV49	Spring	77	76	400.0
NAV50	Spring	77	76	480.0
NAV51	Spring	77	76	520.0
NAV52	Spring	87	127	600.0
NAV53	Spring	87	127	700.0
NAV54	Spring	87	127	800.0
NAV55	Spring	87	127	950.0
NAV56	Spring	87	127	1110.0
NAV57	Spring	87	127	1270.0
NAV58	Spring	87	127	1430.0



NAV1-5
Resilient Rubber

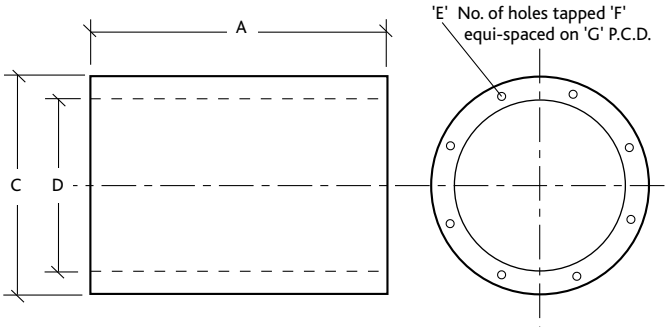


NAV6
Resilient Rubber



NAV49-58
Spring

IN-LINE CIRCULAR ATTENUATORS



Attenuators and 'Pods' (when fitted) 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-hydroscopic and vermin resistant.

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

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

Note: Podded attenuators with higher acoustic performance and other specifications are available. Please contact Nuaire Technical for details.

Standard Un-podded

PERFORMANCE, DIMENSIONS (mm) & WEIGHTS

			Dynamic Attenuation Octave band mid frequency (Hz)							Dimensions & Weights						
Dia.	Unit Code	Type	125	250	500	1K	2K	4K	8K	A	C	D	E	F	G	Weight Kg
250mm	CA25S	Standard Un-podded	-1	-2	-4	-7	-9	-7	-5	250	450	250	4	M8	300	6.0
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.

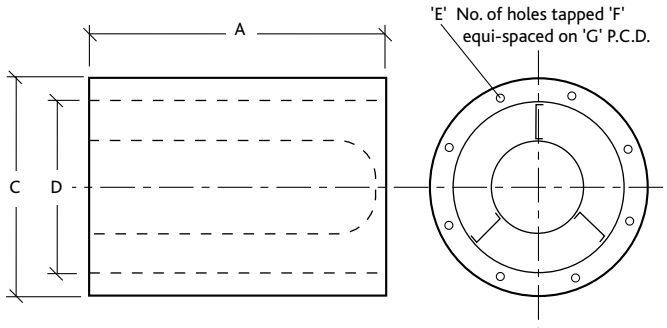
Long Un-podded

PERFORMANCE, DIMENSIONS (mm) & WEIGHTS

			Dynamic Attenuation Octave band mid frequency (Hz)							Dimensions & Weights						
Dia.	Unit Code	Type	125	250	500	1K	2K	4K	8K	A	C	D	E	F	G	Weight Kg
250mm	CA25L	Long - Un-podded	-2	-3	-6	-12	-15	-13	-9	500	450	250	4	M8	300	11.0
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.

CIRCULAR ATTENUATORS



Standard Podded

PERFORMANCE, DIMENSIONS (mm) & WEIGHTS

			Dynamic Attenuation Octave band mid frequency (Hz)							Dimensions & Weights						
Dia.	Unit Code	Type	125	250	500	1K	2K	4K	8K	A	C	D	E	F	G	Weight Kg	Z
250mm	CA25SP	Standard - Podded	-2	-5	-13	-16	-17	-11	-8	250	450	250	4	M8	300	8.0	82
315mm	CA31SP	Standard - Podded	-3	-6	-14	-16	-17	-11	-8	315	515	315	8	M8	355	12.0	26.6
350mm	CA35SP	Standard - Podded	-3	-6	-14	-17	-17	-11	-8	355	555	355	8	M8	395	17.0	19.7
400mm	CA40SP	Standard - Podded	-3	-7	-14	-18	-16	-11	-8	400	600	400	8	M10	450	23.0	8.2
450mm	CA45SP	Standard - Podded	-4	-7	-15	-18	-16	-11	-8	450	650	450	8	M10	500	30.0	6.2
500mm	CA50SP	Standard - Podded	-4	-8	-15	-19	-15	-11	-8	500	700	500	12	M10	560	33.0	4.0
560mm	CA56SP	Standard - Podded	-5	-8	-16	-21	-14	-11	-8	560	760	560	12	M10	620	37.0	2.7
630mm	CA63SP	Standard - Podded	-5	-8	-16	-21	-14	-11	-8	630	830	630	12	M10	690	44.0	1.5
710mm	CA71SP	Standard - Podded	-6	-9	-17	-20	-14	-11	-9	710	910	710	16	M10	770	50.0	0.9
800mm	CA80SP	Standard - Podded	-6	-9	-18	-18	-14	-11	-9	800	1000	800	16	M10	860	105.0	0.55
900mm	CA90SP	Standard - Podded	-7	-10	-19	-17	-15	-11	-10	900	1100	900	16	M12	970	132.0	0.31
1000mm	CA100SP	Standard - Podded	-7	-11	-19	-17	-14	-11	-10	1000	1200	1000	16	M12	1070	160.0	0.22
1120mm	CA112SP	Standard - Podded	-8	-12	-20	-17	-13	-11	-10	1120	1320	1120	20	M12	1190	206.0	0.13
1250mm	CA125SP	Standard - Podded	-8	-12	-20	-17	-13	-11	-10	1250	1450	1250	20	M12	1320	269.0	0.08

Long Podded

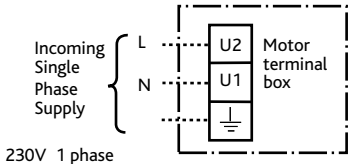
PERFORMANCE, DIMENSIONS (mm) & WEIGHTS

			Dynamic Attenuation Octave band mid frequency (Hz)							Dimensions & Weights						
Dia.	Unit Code	Type	125	250	500	1K	2K	4K	8K	A	C	D	E	F	G	Weight Kg	Z
250mm	CA25LP	Long - Podded	-4	-10	-21	-27	-29	-19	-12	500	450	250	4	M8	300	16.0	82
315mm	CA31LP	Long - Podded	-5	-10	-23	-27	-29	-19	-13	630	515	315	8	M8	355	22.0	26.6
350mm	CA35LP	Long - Podded	-5	-11	-23	-28	-29	-20	-14	710	555	355	8	M8	395	31.0	19.7
400mm	CA40LP	Long - Podded	-6	-11	-24	-29	-27	-20	-15	800	600	400	8	M10	450	43.0	8.2
450mm	CA45LP	Long - Podded	-6	-12	-24	-30	-27	-21	-15	900	650	450	8	M10	500	55.0	6.2
500mm	CA50LP	Long - Podded	-7	-12	-25	-32	-26	-21	-17	1000	700	500	12	M10	560	61.0	4.0
560mm	CA56LP	Long - Podded	-8	-13	-26	-34	-25	-22	-18	1120	760	560	12	M10	620	68.0	2.7
630mm	CA63LP	Long - Podded	-8	-13	-26	-34	-25	-22	-18	1260	830	630	12	M10	690	80.0	1.5
710mm	CA71LP	Long - Podded	-9	-14	-27	-32	-25	-21	-18	1420	910	710	16	M10	770	91.0	0.9
800mm	CA80LP	Long - Podded	-10	-15	-29	-30	-25	-20	-17	1600	1000	800	16	M10	860	191.0	0.55
900mm	CA90LP	Long - Podded	-11	-16	-31	-29	-25	-20	-17	1800	1100	900	16	M12	970	241.0	0.31
1000mm	CA100LP	Long - Podded	-12	-17	-32	-29	-23	-19	-17	2000	1200	1000	16	M12	1070	291.0	0.22
1120mm	CA112LP	Long - Podded	-14	-18	-33	-29	-22	-18	-16	2240	1320	1120	20	M12	1190	373.0	0.13
1250mm	CA125LP	Long - Podded	-14	-18	-33	-29	-22	-18	-16	2500	1450	1250	20	M12	1320	490.0	0.081

Note: Air pressure drop of attenuator (Pa) = Z x Q^2 where Z = Factor listed in table above Q = air volume flow rate (m^3/s).

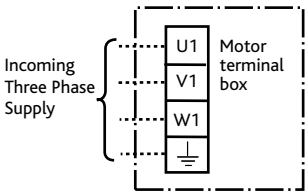
BIFURCATED WIRING

Single Speed 1 phase



230V 1 phase
50Hz supply
(Not speed controllable)

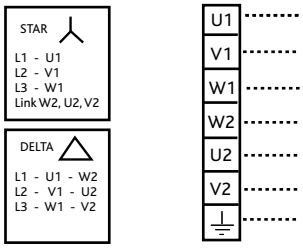
Single Speed 3 phase (below 4kW)



400V 3 phase 50HZ supply

3 phase for STAR /DELTA STARTING (4kW and above)

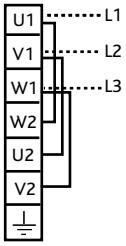
400V 3 phase 50Hz supply



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

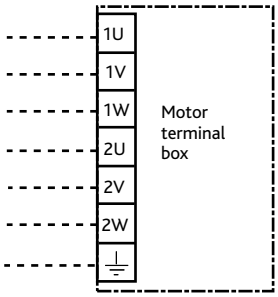
3 phase for DOL STARTING (4kW and above)

400V 3 phase 50Hz supply



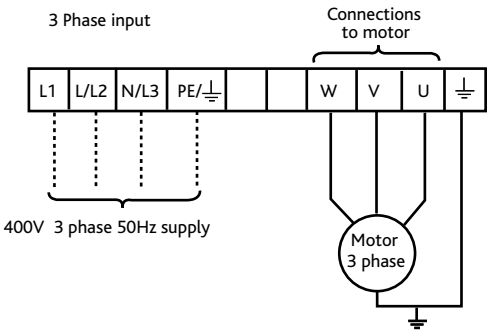
2 Speed TAP/PAM Wound Motor (D.O.L.starting both speeds)

Note: individual wiring instructions are included with each unit



400V 3 phase 50HZ supply

Matched Nuaire Inverter Speed Control



SPEED CONTROLS TABLES

	Unit Code	Electronic Speed Control		Unit Code	Electronic Speed Control
1	AX31X-461	NSC1-3A	21	AX45S-481	NSC1-6A
2	AX31F-441	NSC1-3A	22	AX45P-471	NSC1-6A
3	AX31F-451	NSC1-3A	23	AX45P-481	NSC1-6A
4	AX31B-451	NSC1-3A	24	AX45D-451	NSC1-6A
5	AX35D-411	NSC1-3A	25	AX50C-411	NSC1-3A
6	AX35X-421	NSC1-3A	26	AX50D-411	NSC1-6A
7	AX35F-431	NSC1-3A	27	AX50P-411	NSC1-6A
8	AX35F-441	NSC1-3A	28	AX50P-421	NSC1-6A
9	AX35F-451	NSC1-3A	29	AX50S-45*	NSC1-10A
10	AX40D-411	NSC1-3A	30	AX56B-411	NSC1-3A
11	AX40I-411	NSC1-3A	31	AX56F-411	NSC1-6A
12	AX40I-421	NSC1-3A	32	AX56S-42*	NSC1-10A
13	AX40I-431	NSC1-6A	33	AX63F-411	NSC1-6A
14	AX40I-441	NSC1-6A	34	AX710-611	NSC1-6A
15	AX40I-451	NSC1-6A	35	AX710-621	NSC1-6A
16	AX45S-411	NSC1-3A	36	AX71P-621	NSC1-6A
17	AX45P-411	NSC1-3A	37	AX71AA-621	NSC1-6A
18	AX45S-431	NSC1-6A	38	AX80O-611	NSC1-6A
19	AX45S-451	NSC1-6A	39	AX80O-621	NSC1-6A
20	AX45S-471	NSC1-6A	40	AX80P-621	NSC1-6A

* refers to code 1 or 3 phase.

CONTROLS

DIMENSIONS (mm) & WEIGHTS

Fan code	A	B	C	Weight Kg	Drill D mm	Pattern E mm
ES-ISC1.2A	230	325	410	6	340	298
ES-ISC2.4A	230	325	410	6	340	298
ES-ISC3.3A	230	325	410	6	340	298
ES-ISC4.1A	230	325	410	6	340	298
ES-ISC5.6A	290	390	455	14	470	373
ES-ISC7.3A	290	390	455	14	470	373
ES-ISC8.8A	290	390	455	14	470	373
ES-ISC12.5A	290	390	455	20	470	373
ES-ISC15.6A	290	390	455	20	470	373
ES-ISC23.1A	290	390	455	20	470	373
ES-ISC38.0A	355	525	805	40	710	510

The Ecosmart Energy Saving Speed Control is designed to control selected Nuaire fans and to match the range of integrated Ecosmart control systems. The control is only available for three phase electrical supply.

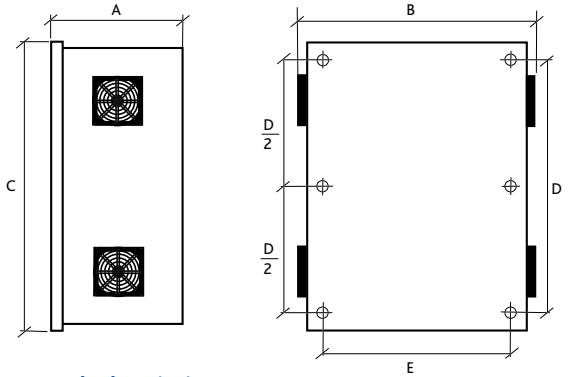
The case material is of Aluzinc corrosion resistant steel, incorporates a frequency inverter, Ecosmart control board and is directly compatible with the Ecosmart range of user controls, time clocks, 'stats and sensors.

Internal mounting

Please note:

- Select a control by matching the unit full load current with the control code i.e. control code ES-ISC3.3A is suitable for a fan with a maximum full load current of 3.3A. The Inverter overload is pre-set at the rating plate value, if a lower setting is required fit an appropriately sized overload relay or adjust inverter settings.
- The mains power supply to the controller must be appropriately sized and installed via a local isolation switch (by others).

DIMENSIONS



Code descriptions

ES - ISC 2.4A

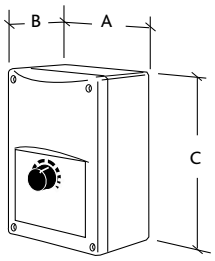
1 2 3

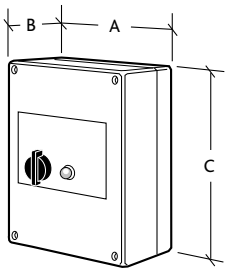
1. ES = Ecosmart
2. Inverter Speed Control
3. Output Current Rating

The isolator must also accommodate the 230V switched live (if used). The mains supply from the Ecosmart controller to the fan must be appropriately sized, not exceeding 30 metres and must be a screened power cable, earthed at both ends.
A four point glanding plate is formed from the base of the control and in order to main EMC compliance, EMC glanding kit is supplied.

- Not suitable for contra rotating/run and standby axial units.
- All integrated sensors plug directly into the control panel.
- Refer to product datasheet No. 671432 for further information.

CONTROLS CONT.





ELECTRONIC SPEED CONTROL (mm)

Dimensions (mm)

Unit Code	A	B	C	Weight Kg
NSC1-3A	83	88	180	0.5
NSC1-6A	115	95	195	0.7
NSC1-10A	115	95	195	0.7

The electronic speed controllers provide infinitely variable speed control from preset minimum to maximum. All models feature a boost start function, which applies maximum power to the motor for a few seconds to prevent motor stalling before returning to selected speed. Wiring to the motor can be either 2-wires or 3-wires control depending on the motor design. The enclosures for ESC1-3A and ESC1-6A are rated to IP45 with the ESC1-10A rated at IP54. All controllers meet LVD and EMC directives for safety and electromagnetic compatibility.

TRANSFORMER SPEED CONTROL (mm)

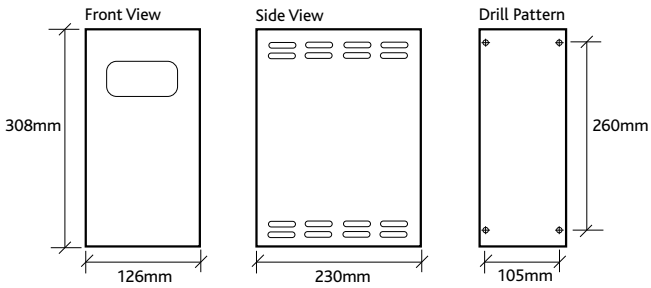
Single Phase

Unit Code	A	B	C	Weight Kg
SPCON1.5	115	85	180	1.7
SPCON3.5	200	140	280	3.6
SPCON7.5	200	140	280	6.0

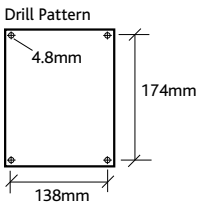
Autotransformers having class 'F' insulation are used to provide discrete voltage steps. All models are fitted with suitable fuses for short-circuit protection. The controller casing is manufactured from plastic pre-coated steel or impact resistant polycarbonate. All models are suitable for indoor installations only. All controllers meet LVD and EMC directives for safety and electromagnetic compatibility. Transformer speed controls produce a pure sine wave output resulting in quiet motor operation. Transformer controls are therefore preferred for noise sensitive applications.

DIMENSIONS (MM)

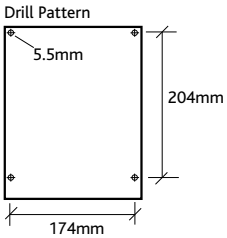
Frame size A inverter and Drill Pattern



Frame size B Drill Pattern



Frame size C Drill Pattern



Frame size A inverters codes	
3ISC1.2A	(image shown)
3ISC1.6A	(image shown)
3ISC2.1A	(image shown)
3ISC3.0A	(image shown)
3ISC4.0A	(image shown)
Frame size B inverters codes	
3ISC5.9A	
3ISC7.7A	
3ISC10.2A	
Frame size C inverters codes	
3ISC13.2A	
3ISC15.8A	
3ISC18.4A	
3ISC26.0A	

All inverters are supplied complete with integral class A filters to suppress EMC emissions.
Note: Frame size A inverters are pre assembled into metal enclosures.

Code descriptions

3 ISC 1.2A

1 2 3

1. 3 Phase
2. Inverter Speed Control
3. Output Current Rating