

Colourfan[®] *Twin Acoustic*

Duties up to 2.8 m³/s

- ▶ Independent Acoustic Testing to BS EN ISO 3744:2010
- ▶ Low noise to help meet acoustic requirements, including BB93
- ▶ Wide range of models for ceiling void, plantroom and external locations
- ▶ High efficiency EC fans with Low SFPs to achieve L2 Building Regulations
- ▶ BlueSense Intelligent Controls, with duty share for continuous ventilation



Colourfan Twin Acoustic Unit

Colourfan[®] *Twin Acoustic*
part of a complete range of innovative,
flexible products from the HVAC experts

Colourfan[®]
Twin Acoustic
**DUTIES UP
TO 2.8 m³/s**



The Colourfan *Twin Acoustic* high efficiency, low noise unit with duties up to 2.8 m³/s, low Specific Fan Power and low energy / high efficiency fans.

Refer to pages 6-27.

Also available...

Colourfan[®]
*Twin
Units*



Colourfan[®]
*Supply Acoustic
and Supply
Units*



Colourfan[®]
*Extract Acoustic
and Extract
Units*



Colourfan® *Twin Acoustic*

Why choose VES

VES has been supplying products for the HVAC industry for over 40 years, and have the in-depth knowledge and resources to provide solutions to all ventilation related requirements. We are a substantial British manufacturing company with over 250 employees, several factories plus a regional base in the north of England, and sales engineers located throughout the UK.

Complete range of products

The product range encompasses all types of ventilation products, including those required for commercial, industrial, public and domestic buildings. The emphasis is on low energy products and sophisticated controls to meet Building Regulation requirements. The range extends from a small bathroom extract fan up to large bespoke air handling units. There are specialist heat recovery units; high temperature fans for kitchen hood extract; duct, wall, ceiling and roof units; low noise products, silencers and fitted controls.

High quality, flexible solutions

VES operates a quality assurance system to ISO 9001, monitored by the BSI. The air movement products are tested in-house to BS EN ISO 5801:2008, BS 848-1:2007 and submitted for external testing and approval when necessary. VES specialise in bespoke designs for ventilation units. Whatever the issue, be it space, noise or temperature, VES can provide a design solution to meet the requirements of the project.

Superior customer service

From the moment we receive your enquiry, to delivery and beyond; we have the people in place to give excellent customer service. The VES after sales service covers the whole of the UK and is among the best in the industry.

Experience and expertise

VES employs a range of experts in disciplines including: air movement, noise control, air conditioning, controls, electrics and product refurbishment, and we have key staff who have worked at VES for many years.

Manufactured in the UK

VES has over 12000m² of manufacturing and stores space, and has state of the art sheet metalworking equipment, plus a large powder coating plant. VES also has a substantial controls department, and makes components such as dampers and electric heaters in-house. This not only provides employment for local people, but also many suppliers around the UK.

Colourfan® *Twin Acoustic*

Colourfan is a range of small air handling ventilation units from VES, including Supply, Extract and Twin Extract, designed around a single product platform, with unique and innovative benefits across the range. Installation and maintenance is simplified through quick change “Plug & Play” connectors or pre-wired fitted controls.

The Colourfan Twin Acoustic is suitable for many installations including schools, offices, libraries, hotels and retail establishments. Designed to fit any application, the units have been independently acoustically tested to BS EN ISO 3744:2010.



Colourfan® *Twin Acoustic* Features and Benefits

Optimum Performance

Our quietest twin air handling unit, meeting regulations and maximising performance.

Energy saving packages combine intelligent controls technology, products and services.

Simple Installation and Maintenance

Simple connection and pre-installed features save on site costs and reduce lead times. Carefully designed maintenance features minimise downtime and total cost of ownership.

Versatile Options

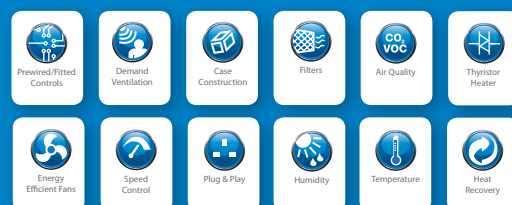
Versatile location, handling and access options meet the widest range of project requirements.

Robust Construction

Excellent build quality ensures minimal noise breakout, low SFPs and air tight performance.

Energy Saving

Intelligent controls enhance performance whilst saving energy and money.





Energy Efficient

Energy efficient units with low SFPs to help achieve L2 Building Regulations. Units are fully tested to BS EN ISO 5801:2008, BS 848-1:2007 (airside performance) and BS EN ISO 3744:2010 (acoustic performance).



Complete Ventilation Package

VES offer the expertise, products and services to provide a complete ventilation package including integrated controls and site assistance, providing peace of mind through reliable products and expert knowledge.



Noise Reduction

Our quietest twin extract air handling unit has been independently tested to BS EN ISO 3744:2010 and can help meet acoustic requirements for sensitive applications including BB93; Building Bulletin 93 - School Acoustics.



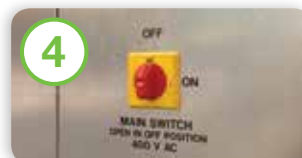
High Performance Fans

Backward curve EC Fans offering maximum efficiency, minimum energy consumption, fully controllable and ErP2015 compliant.



Easy Connections

Rectangular spigot connections are fitted with 30mm MEZ flange, avoiding the need for additional accessories.



Pre-wired Isolator & Controls

The unit can be pre-wired to an integral isolator or integral controls package to reduce on site wiring.



'Plug & Play' Fans

Fan motor assembly is internally anti-vibration isolated and fitted with a quick change plug connector for easy maintenance.



Duty Share

The CPF Twin Controls provide automatic changeover upon fan failure to ensure continuous extract ventilation, including a time dependent duty share function.



Multi Access

Plantroom units suitable for top or bottom access to fans, left or right access to controls. External units are top access only.



Adjustable Mounting Feet

Weatherproof units size 0-3 are supplied with adjustable feet for uneven surfaces and sizes 4-10 are supplied on channel bases. Plantroom units can be supplied with optional feet.



Versatile Handings

Handings can be left or right hand side to suit site and/or installation requirements.



Section Joins

External joining brackets for silencer connections for simple installation of unit and silencer.



Excellent Construction

Double skinned cases available in plantroom or weatherproof. All units constructed to BS EN 1886, with 50mm aluminium tubular frame and galvanised sheet steel panels, with high density resin bonded mineral wool slab infill.



Powdercoat Options

External units are powder coated Signal Grey to RAL7004 as standard, with many other colours available.

BlueSense Energy Saving Package



Colourfan Acoustic Unit with Integral Controls



EC fan - with full control



Sensor options

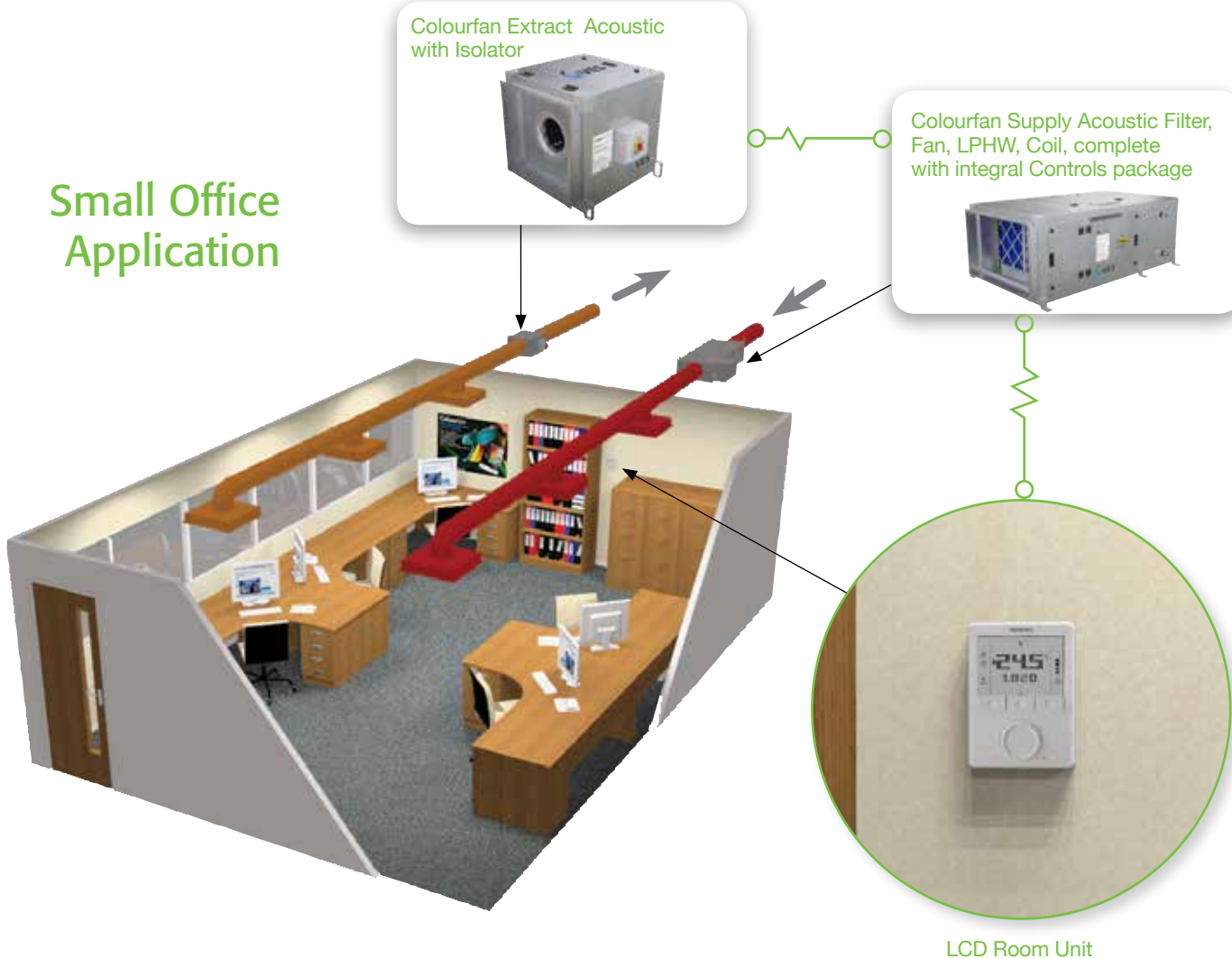


The sign of energy saving products, services and expertise

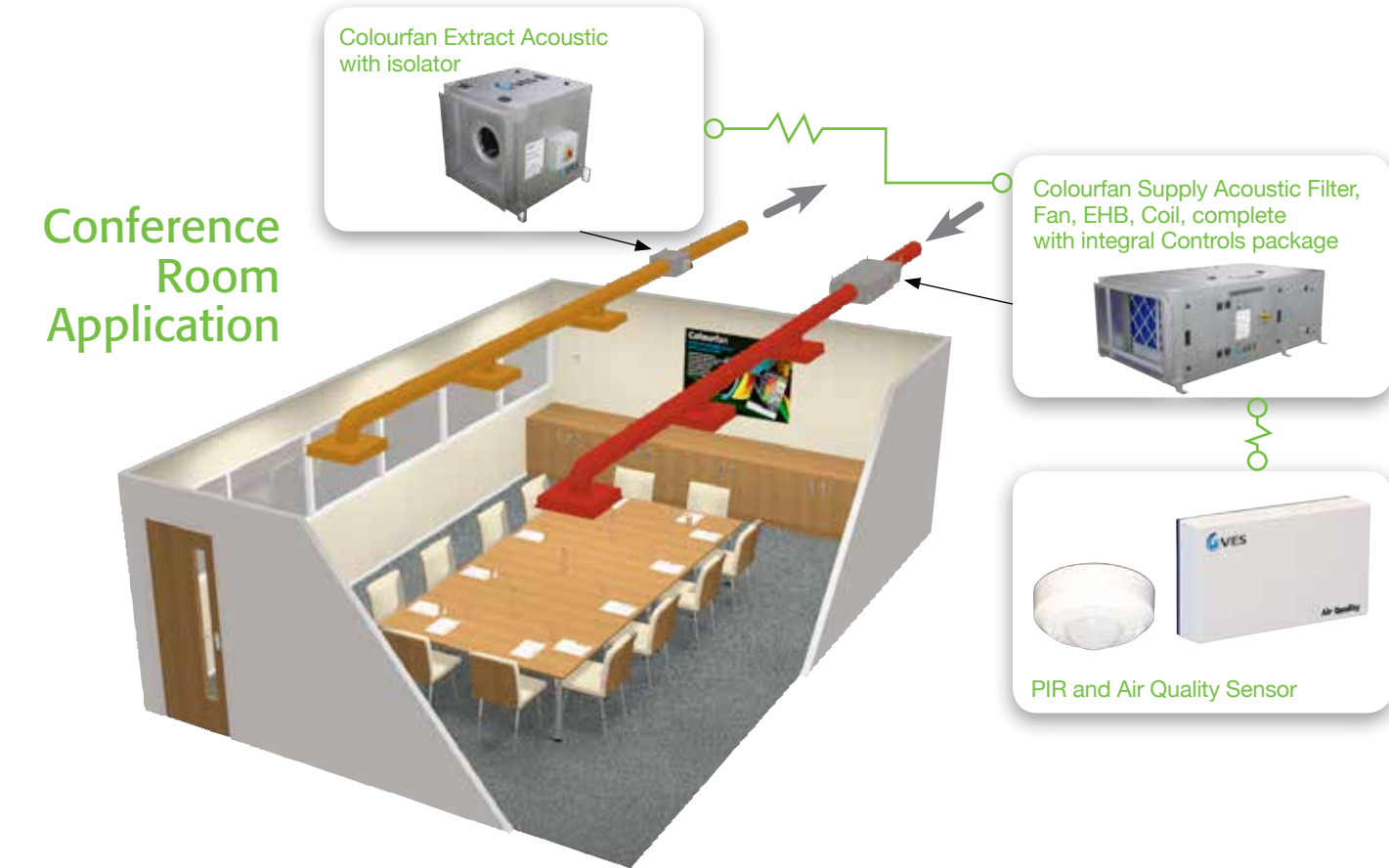
For more information refer to pages 28-29

Supply, Extract or Twin Extract Working Together

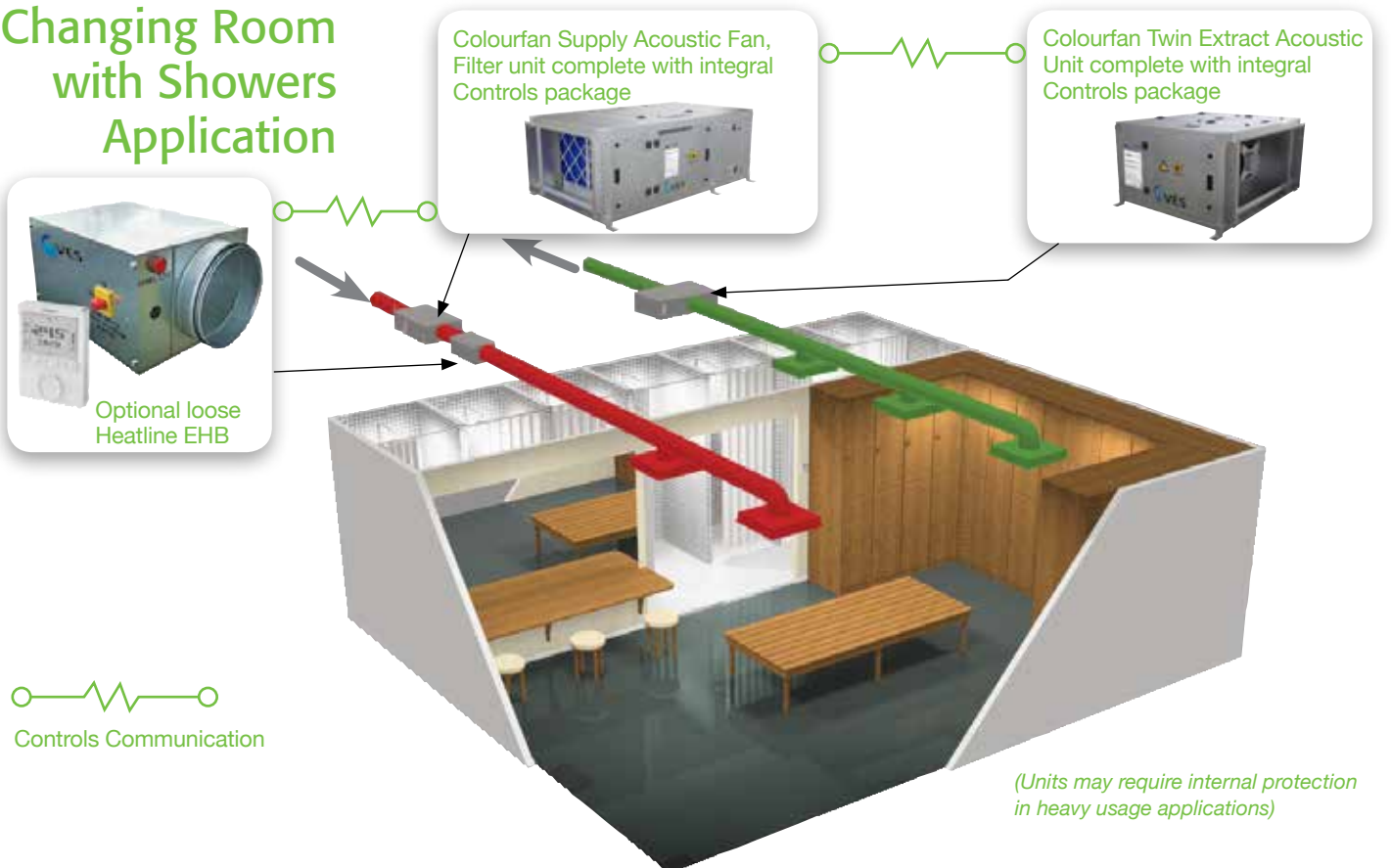
The Colourfan Supply Acoustic unit with integrated controls can work seamlessly with any Colourfan Extract Acoustic or Colourfan Twin Extract Acoustic unit. This provides fully protected motor and control signals that can be wired directly to the isolator on the Extract Acoustic or Twin Acoustic unit, reducing the need for any other control requirements and easing site installation.



Conference Room Application



Changing Room with Showers Application





BlueSense™

Colourfan BlueSense

All products in the Colourfan range can form part of the BlueSense energy saving commitment. By specifying a BlueSense package you are ensuring your Supply Acoustic, Extract Acoustic or Twin Acoustic unit is optimised with a pre-wired controls package, energy efficient speed controller and air quality sensor, all programmed to work in unison, reducing energy consumption and saving money.

Pre-wired Controls



Colourfan Acoustic Unit with Integral Controls

+



EC fan - with full control

+



Sensor options

=



BlueSense

The sign of energy saving products, services and expertise

For more information refer to page 28-29

Colourfan®

Supply and Supply Acoustic Units



Colourfan®

Extract and Extract Acoustic Units



Colourfan®

Twin and Twin Acoustic Units



Easy Selection

VES Colourfan Twin Acoustic units are the versatile solution for a wide range of applications.

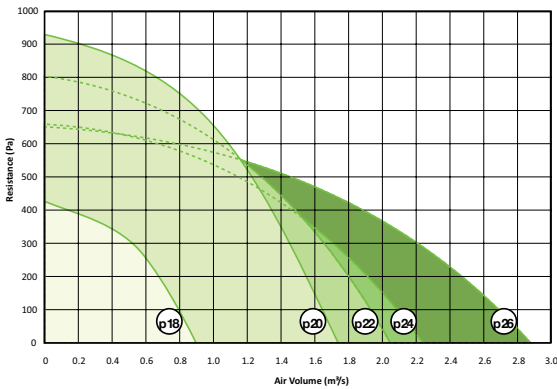
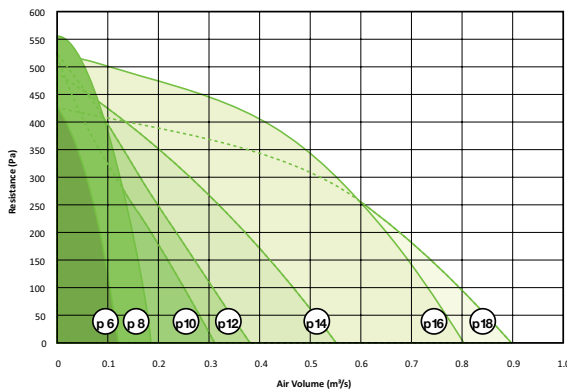
Selecting Colourfan units has been made easy, through our simple step by step process. We've done all of the hard work leaving you to specify and define your unit requirements.



Duties up to 2.8 m³/s



Colourfan® Twin Acoustic Performance



1 Choose duties up to 2.8 m³/s

Colourfan® Twin Acoustic

Duties up to 2.8 m³/s

Energy efficient low noise ErP compliant fans, robust case construction, low profile units, suitable for ceiling voids, plantrooms and roofs and can be configured for top or bottom access.

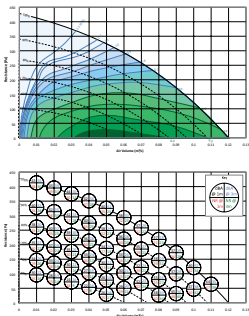


2 Specify your unit

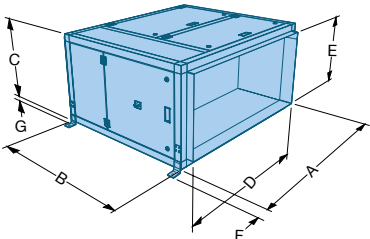
a Performance

b Unit Configuration

2a. Performance Curve



2b. Unit Configuration



c Controls

d Noise and Silencer Data

2c. Controls

Unit Type
CAT0
Integral to AHU
CPF0-1/P/C
Loose Panel
CPF0-1/N/C

2d. Noise and Silencer Data

Fan Speed	83	125	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000
Sound Power Level (dB)	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83
Sound Pressure Level (dB)	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83

3 Add control packages for performance and efficiency Pages 28-30

Include BlueSense integrated controls to take advantage of energy saving demand ventilation, as well as many additional benefits.

Variety of control features:

- Local control or user interface options.
- Demand ventilation.
- Variety of heating options.
- Remote communication (Modbus®, BACnet®).



Energy monitoring is an effective way of highlighting areas for potential savings, whilst providing a key indicator to ongoing energy consumption. Refer to pages 28-29.

4 Specify bespoke options for Colourfan products Page 31



As well as offering a wide range of standard Colourfan units VES is able to build bespoke versions for special applications and requirements.

Units can be adapted for higher specifications e.g. minimising noise breakout or for architectural aesthetics.

Our experience with controls also enables high levels of integration with Building Management Systems or existing systems, as well as matching to niche applications.

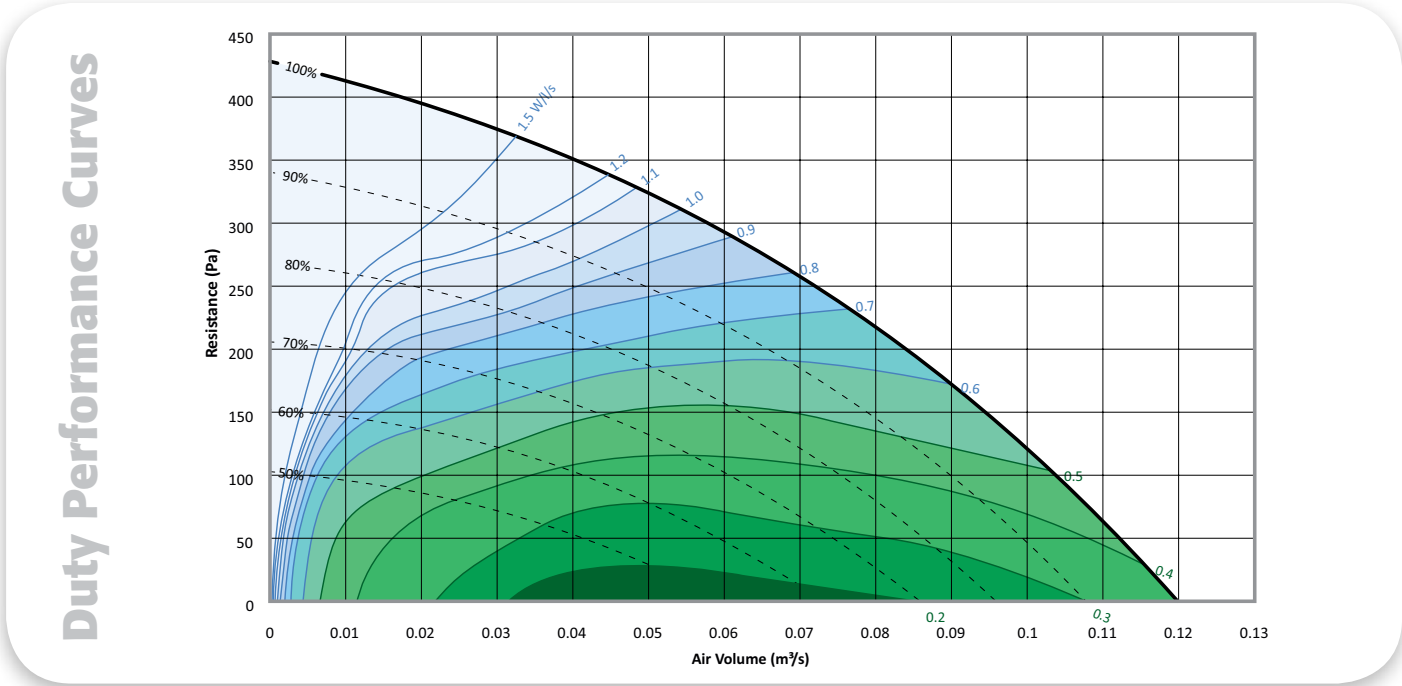
Also see Specifications on pages 32-33

Selection Data

Unit Size 0 CAT0051-1

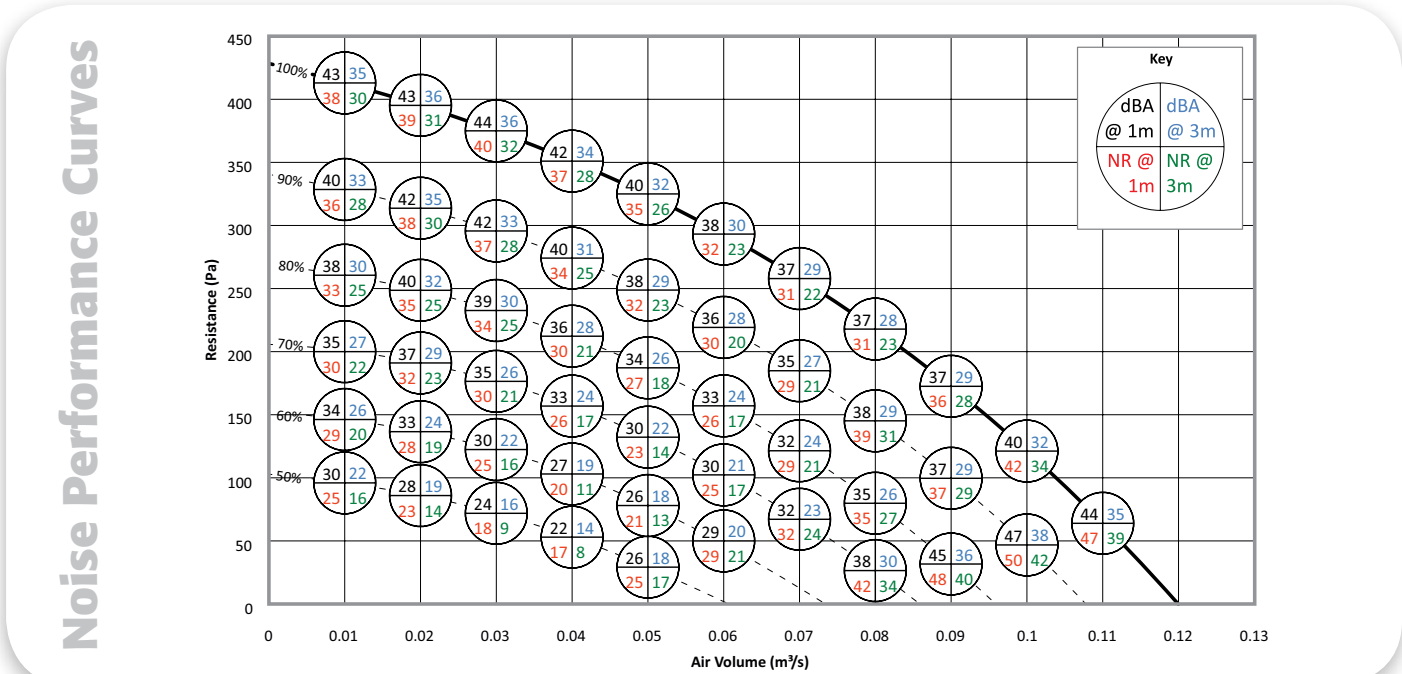
2a Performance

Size	Phase	Motor Size	Voltage	Fan Speed	Full Load Current	Speed Control
CAT0051-1	1 Phase	0.043 kW	230 VAC	4501 rpm	0.32 A	EC



SFP = $\frac{\text{Electrical input power (Watts)}}{\text{Air volume flow rate (litres/second)}}$

Note: SFP figures quoted at voltages tested in accordance with BS EN ISO 5801:2008, BS 848-1:2007.



Note: NR levels are dependent upon environmental conditions.
Tolerances:
On flow rates: +/- 5%
On acoustic power and pressure: Levels: +/- 3 dB
By octave band: +/- 5 dB

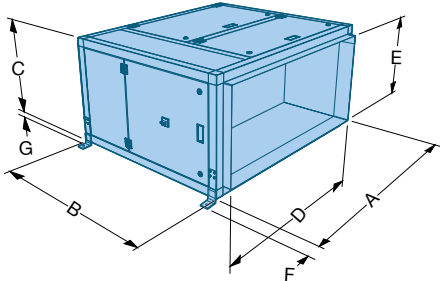
Note: Data for design guidance only. For full details, outline drawings are available upon request.

2b Unit Configuration

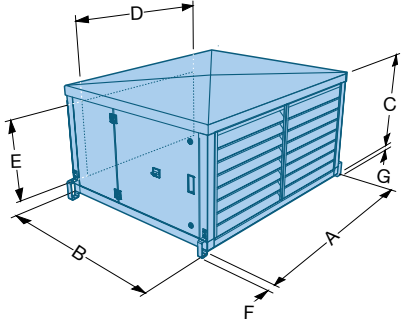
Configuration and Handling

CAT0051-1 / PH WH / EE / LT RB / ISC
RT LB CPSC

PH Plantroom



WH Weatherproof



Unit Type	Dimensions mm							Weight kg	Configuration Options			
	A	B	C	D	E	F	G		LT	LB	RT	RB
CAT0 Plantroom Twin Extract	735	700	340	635	240	50	25	65	✓	✓	✓	✓
CAT0 Weatherproof Twin Extract	735	700	365	635	240	50	25	70	✓		✓	

2c Controls

CAT0051-1 / PH / EE / LT / ISC
WH RT RB LB CPSC

Unit Type	Integral to AHU	Loose panel
CAT0051-1	CPF0-1/P/C	CPF0-1/N/C

Note: If no control panel is purchased the unit will be supplied with a main isolator.

2d Noise and Silencer Data

Fan Voltage	Fan Speed rpm	Sound Spectrum dB re 10 ⁻¹² W PWL Centre Frequency (Hz)								Casing Noise Breakout			
		63	125	250	500	1k	2k	4k	8k	NR @ 1m	NR @ 3m	dBA @ 1m	dBA @ 3m
100%	4501	66	53	47	48	38	41	54	47	47	39	43	35
90%	4050	63	58	49	45	36	37	33	34	29	21	35	27
80%	3600	61	56	47	42	33	34	30	30	26	17	33	24
70%	3150	59	54	44	39	30	31	26	27	23	14	30	22
60%	2700	56	51	42	36	27	28	23	24	20	11	27	19
50%	2250	52	47	39	34	23	24	19	20	18	9	24	16

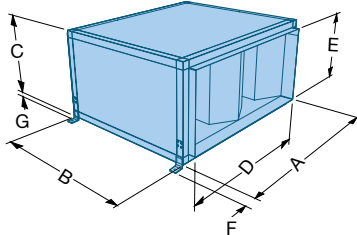
Centre Frequency	63	125	250	500	1k	2k	4k	8k
Case Insertion Loss	-3	-5	-14	-19	-26	-22	-22	-15

Note: Independently acoustically tested to BS EN ISO 3744:2010.

Silencer Option	Sound Spectrum dB re 10 ⁻¹² W PWL Centre Frequency (Hz)							
	63	125	250	500	1k	2k	4k	8k
CATVA0000/1200	63	125	250	500	1k	2k	4k	8k
Induct Loss	-6	-8	-12	-19	-28	-30	-24	-21
Dimensions mm								
A	B	C	D	E	F	G	Weight kg	
Plantroom CATVA0000/1200/STD	735	1300	340	635	240	50	25	75
Weatherproof CATVA0000/1200/W/STD	735	1300	365	635	240	50	25	85

Note: The silencer will add a maximum of 2 Pa to the external resistance.

Silencer



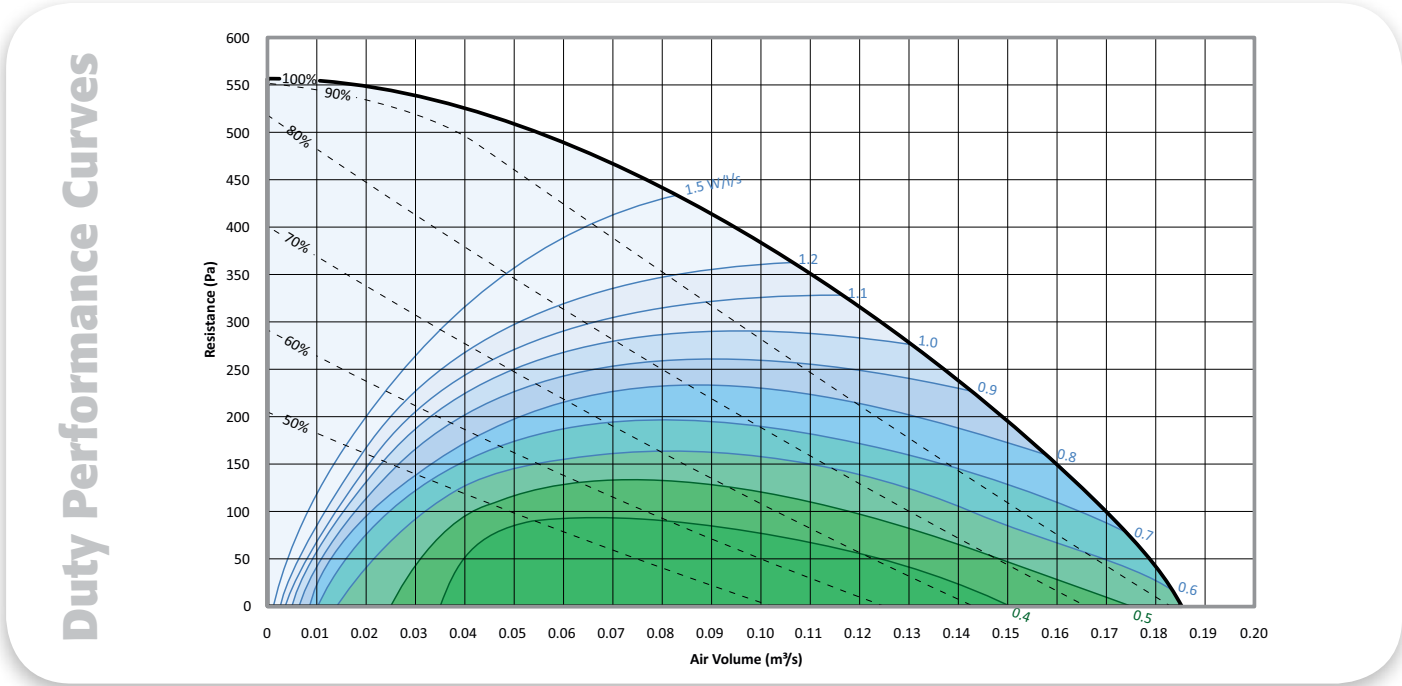
SIZE 0 - CAT0051-1

Selection Data

Unit Size 1 CAT0141-1

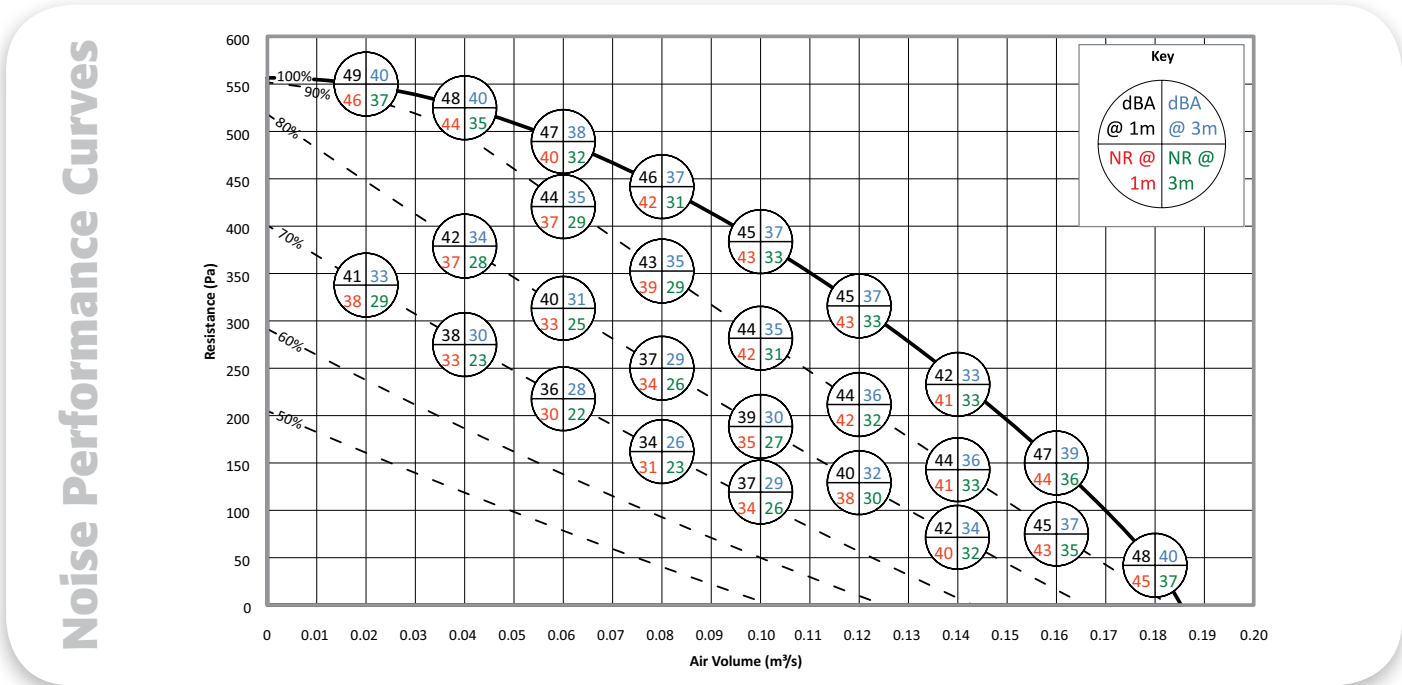
2a Performance

Size	Phase	Motor Size	Voltage	Fan Speed	Full Load Current	Speed Control
CAT0141-1	1 Phase	0.12 kW	230 VAC	3490 rpm	0.68 A	EC



SFP = $\frac{\text{Electrical input power (Watts)}}{\text{Air volume flow rate (litres/second)}}$

Note: SFP figures quoted at voltages tested in accordance with BS EN ISO 5801:2008, BS 848-1:2007.



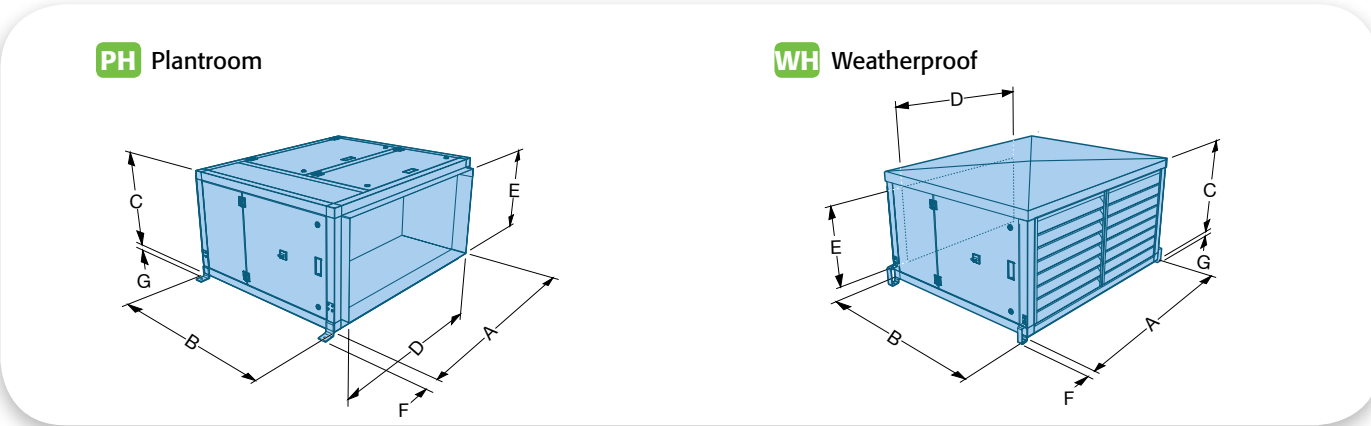
Note: NR levels are dependent upon environmental conditions.
Tolerances:
On flow rates: +/- 5%
On acoustic power and pressure: Levels: +/- 3 dB
By octave band: +/- 5 dB

Note: Data for design guidance only. For full details, outline drawings are available upon request.

2b Unit Configuration

Configuration and Handling

CAT0141-1 / PH WH / EE / LT RB / ISC RT LB CPSC



Unit Type	Dimensions mm							Weight kg	Configuration Options			
	A	B	C	D	E	F	G		LT	LB	RT	RB
CAT1 Plantroom Twin Extract	880	700	440	780	340	50	25	75	✓	✓	✓	✓
CAT1 Weatherproof Twin Extract	880	700	465	780	340	50	25	85	✓		✓	

2c Controls

CAT0141-1 / PH / EE / LT / ISC WH RT RB LB CPSC

Unit Type	Integral to AHU	Loose panel
CAT0141-1	CPF0-1/P/C	CPF0-1/N/C

Note: If no control panel is purchased the unit will be supplied with a main isolator.

2d Noise and Silencer Data

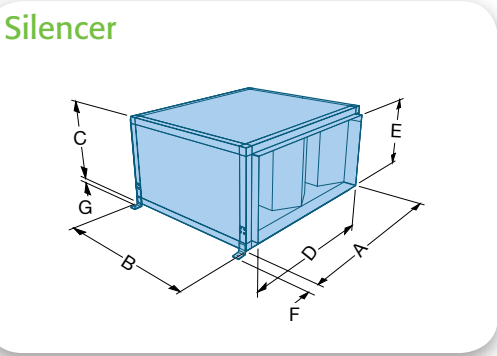
Fan Voltage	Fan Speed rpm	Sound Spectrum dB re 10 ⁻¹² W PWL Centre Frequency (Hz)								Casing Noise Breakout			
		63	125	250	500	1k	2k	4k	8k	NR @ 1m	NR @ 3m	dBA @ 1m	dBA @ 3m
100%	3490	80	66	63	57	50	55	51	52	46	38	49	41
90%	3141	84	62	55	48	41	48	45	46	44	36	47	38
80%	2792	65	60	50	42	35	43	41	38	34	26	37	29
70%	2443	56	53	40	35	30	41	38	29	33	23	38	30

Centre Frequency	63	125	250	500	1k	2k	4k	8k
Case Insertion Loss	-3	-5	-14	-19	-26	-22	-22	-15

Note: Independently acoustically tested to BS EN ISO 3744:2010.

Silencer Option	Sound Spectrum dB re 10 ⁻¹² W PWL Centre Frequency (Hz)							
	63	125	250	500	1k	2k	4k	8k
CATVA0100/1200	63	125	250	500	1k	2k	4k	8k
Induct Loss	-6	-8	-12	-19	-28	-30	-24	-21
Dimensions mm								
Weight kg								
Plantroom CATVA0100/1200/STD	880	1300	440	780	340	50	25	90
Weatherproof CATVA0100/1200/W/STD	880	1300	465	780	340	50	25	105

Note: The silencer will add a maximum of 5 Pa to the external resistance.



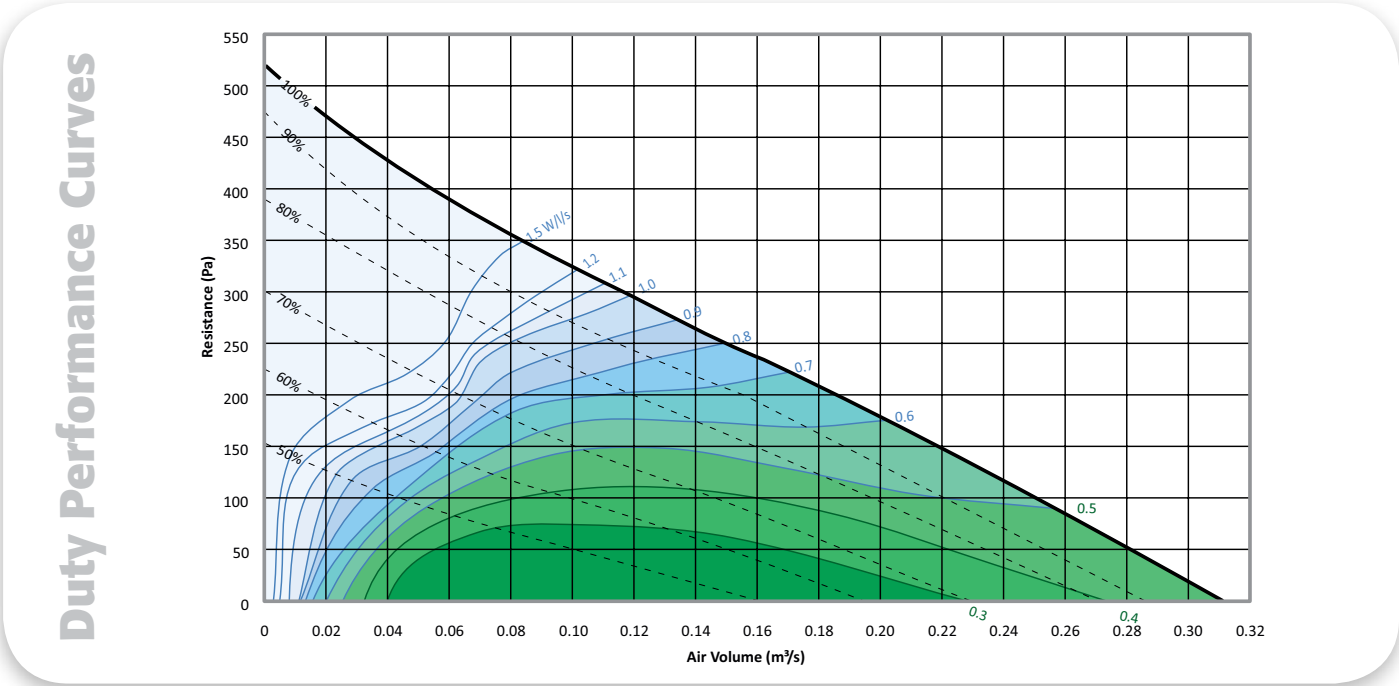
Note: Data for design guidance only. For full details, outline drawings are available upon request.

Selection Data

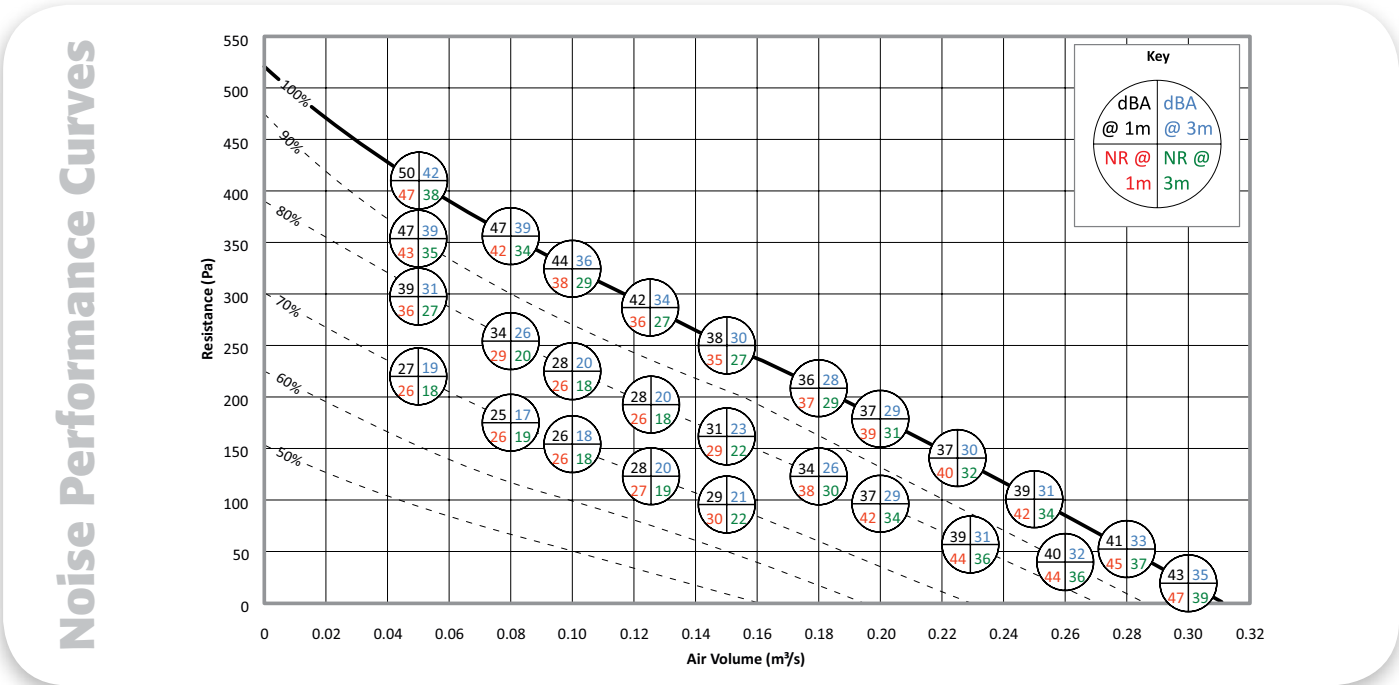
Unit Size 2 CAT0242-1

2a Performance

Size	Phase	Motor Size	Voltage	Fan Speed	Full Load Current	Speed Control
CAT0242-1	1 Phase	0.14 kW	230 VAC	3240 rpm	0.78 A	EC



SFP = $\frac{\text{Electrical input power (Watts)}}{\text{Air volume flow rate (litres/second)}}$
Note: SFP figures quoted at voltages tested in accordance with BS EN ISO 5801:2008, BS 848-1:2007.



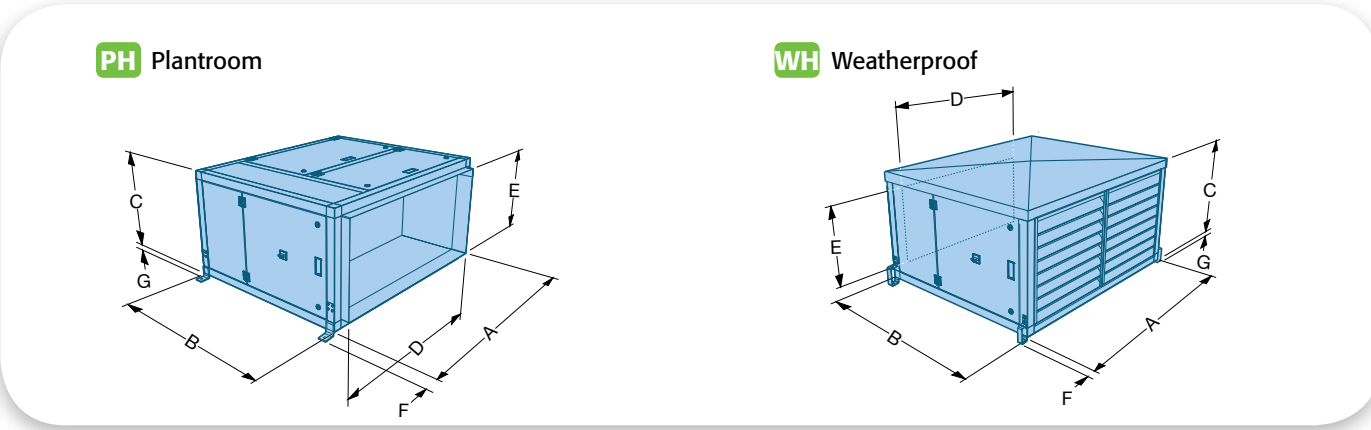
Note: NR levels are dependent upon environmental conditions.
Tolerances:
On flow rates: +/- 5%
On acoustic power and pressure: Levels: +/- 3 dB
By octave band: +/- 5 dB

Note: Data for design guidance only. For full details, outline drawings are available upon request.

2b Unit Configuration

Configuration and Handling

CAT0242-1 / PH WH / EE / LT RB / ISC
RT LB CPSC



Unit Type	Dimensions mm							Weight kg	Configuration Options			
	A	B	C	D	E	F	G		LT	LB	RT	RB
CAT2 Plantroom Twin Extract	1010	750	500	910	400	50	25	90	✓	✓	✓	✓
CAT2 Weatherproof Twin Extract	1010	750	525	910	400	50	25	105	✓		✓	

2c Controls

CAT0242-1 / PH / EE / LT / ISC
WH RT RB LB CPSC

Unit Type	Integral to AHU	Loose panel
CAT0242-1	CPF0-1/P/C	CPF0-1/N/C

Note: If no control panel is purchased the unit will be supplied with a main isolator.

2d Noise and Silencer Data

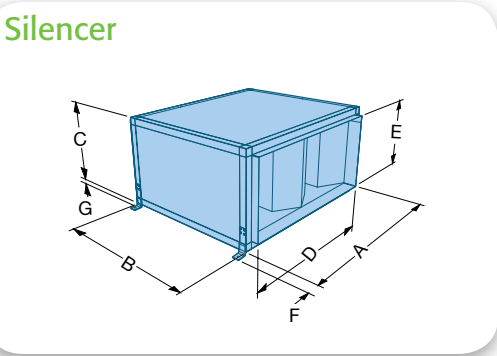
Fan Voltage	Fan Speed rpm	Sound Spectrum dB re 10 ⁻¹² W PWL Centre Frequency (Hz)								Casing Noise Breakout			
		63	125	250	500	1k	2k	4k	8k	NR @ 1m	NR @ 3m	dBA @ 1m	dBA @ 3m
100%	3240	72	60	50	44	38	41	36	41	35	27	38	30
90%	2916	66	58	48	41	33	38	33	36	30	23	34	26
80%	2592	55	50	43	34	27	33	31	31	26	18	28	20
70%	2268	50	52	29	26	16	30	19	32	26	19	25	17

Centre Frequency	63	125	250	500	1k	2k	4k	8k
Case Insertion Loss	-3	-5	-14	-19	-26	-22	-22	-15

Note: Independently acoustically tested to BS EN ISO 3744:2010.

Silencer Option	Sound Spectrum dB re 10 ⁻¹² W PWL Centre Frequency (Hz)							
CATVA0200/1200	63	125	250	500	1k	2k	4k	8k
Induct Loss	-6	-8	-12	-19	-28	-30	-24	-21
Dimensions mm	A	B	C	D	E	F	G	Weight kg
Plantroom CATVA0200/1200/STD	1010	1300	500	910	400	50	25	105
Weatherproof CATVA0200/1200/W/STD	1010	1300	525	910	400	50	25	120

Note: The silencer will add a maximum of 3 Pa to the external resistance.



Note: Data for design guidance only. For full details, outline drawings are available upon request.

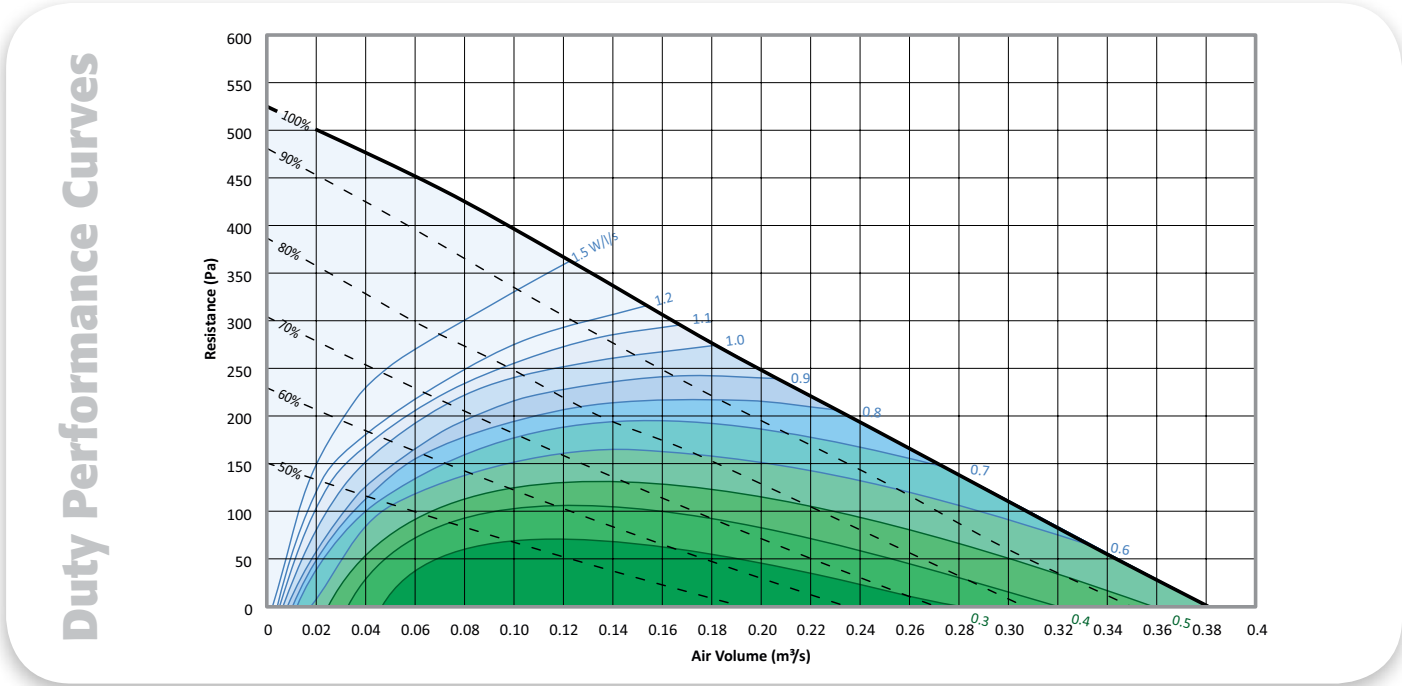
SIZE 2 - CAT0242-1

Selection Data

Unit Size 3 CAT0343-1

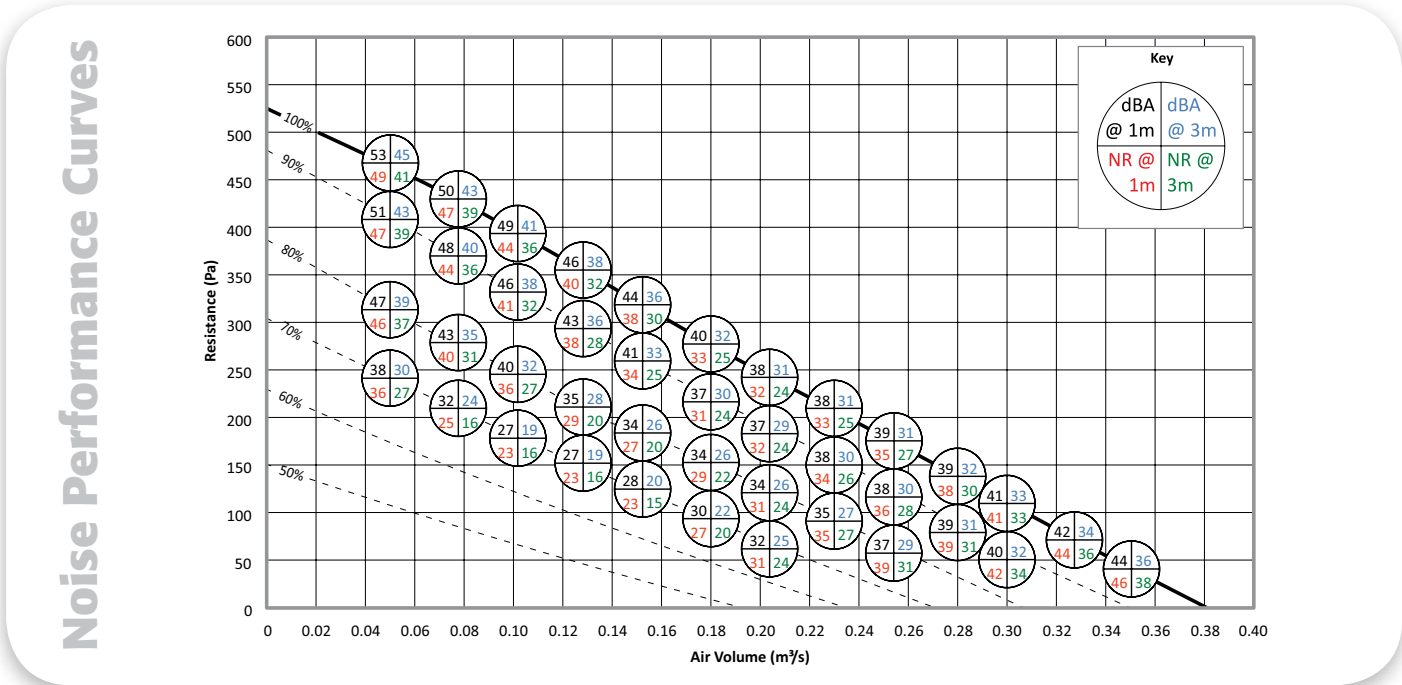
2a Performance

Size	Phase	Motor Size	Voltage	Fan Speed	Full Load Current	Speed Control
CAT0343-1	1 Phase	0.23 kW	230 VAC	3290 rpm	1.2 A	EC



SFP = $\frac{\text{Electrical input power (Watts)}}{\text{Air volume flow rate (litres/second)}}$

Note: SFP figures quoted at voltages tested in accordance with BS EN ISO 5801:2008, BS 848-1:2007.



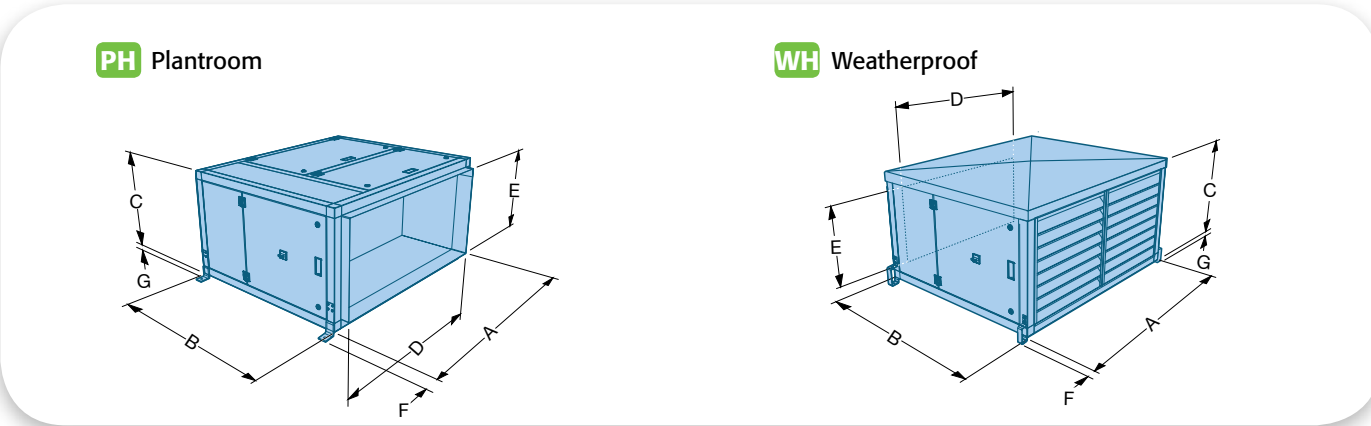
Note: NR levels are dependent upon environmental conditions.
Tolerances:
On flow rates: +/- 5%
On acoustic power and pressure: Levels: +/- 3 dB
By octave band: +/- 5 dB

Note: Data for design guidance only. For full details, outline drawings are available upon request.

2b Unit Configuration

Configuration and Handling

CAT0343-1 / PH WH / EE / LT RB / ISC
RT LB CPSC



Unit Type	Dimensions mm							Weight kg	Configuration Options			
	A	B	C	D	E	F	G		LT	LB	RT	RB
CAT3 Plantroom Twin Extract	1020	850	550	920	450	50	25	100	✓	✓	✓	✓
CAT3 Weatherproof Twin Extract	1020	850	575	920	450	50	25	115	✓		✓	

2c Controls

CAT0343-1 / PH / EE / LT / ISC
WH RT RB LB CPSC

Unit Type	Integral to AHU	Loose panel
CAT0343-1	CPF0-1/P/C	CPF0-1/N/C

Note: If no control panel is purchased the unit will be supplied with a main isolator.

2d Noise and Silencer Data

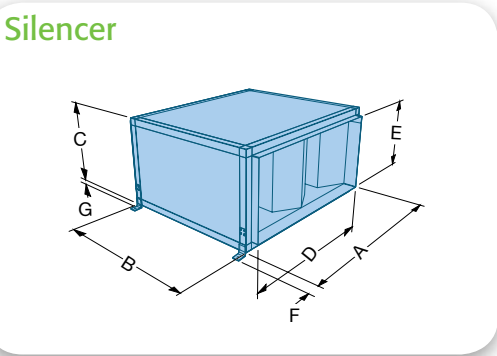
Fan Voltage	Fan Speed rpm	Sound Spectrum dB re 10 ⁻¹² W PWL Centre Frequency (Hz)								Casing Noise Breakout			
		63	125	250	500	1k	2k	4k	8k	NR @ 1m	NR @ 3m	dBA @ 1m	dBA @ 3m
100%	3290	69	62	53	48	40	42	37	38	32	24	38	31
90%	2961	67	62	51	44	38	40	36	38	31	24	37	30
80%	2632	69	57	47	40	38	35	32	33	27	20	34	26
70%	2303	61	51	40	34	25	27	25	29	23	15	28	20

Centre Frequency	63	125	250	500	1k	2k	4k	8k
Case Insertion Loss	-3	-5	-14	-19	-26	-22	-22	-15

Note: Independently acoustically tested to BS EN ISO 3744:2010.

Silencer Option	Sound Spectrum dB re 10 ⁻¹² W PWL Centre Frequency (Hz)							
	63	125	250	500	1k	2k	4k	8k
CATVA0300/1200	63	125	250	500	1k	2k	4k	8k
Induct Loss	-6	-8	-12	-19	-28	-30	-24	-21
Dimensions mm	A	B	C	D	E	F	G	Weight kg
Plantroom CATVA0300/1200/STD	1020	1300	550	920	450	50	25	115
Weatherproof CATVA0300/1200/W/STD	1020	1300	575	920	450	50	25	125

Note: The silencer will add a maximum of 3 Pa to the external resistance.



Note: Data for design guidance only. For full details, outline drawings are available upon request.

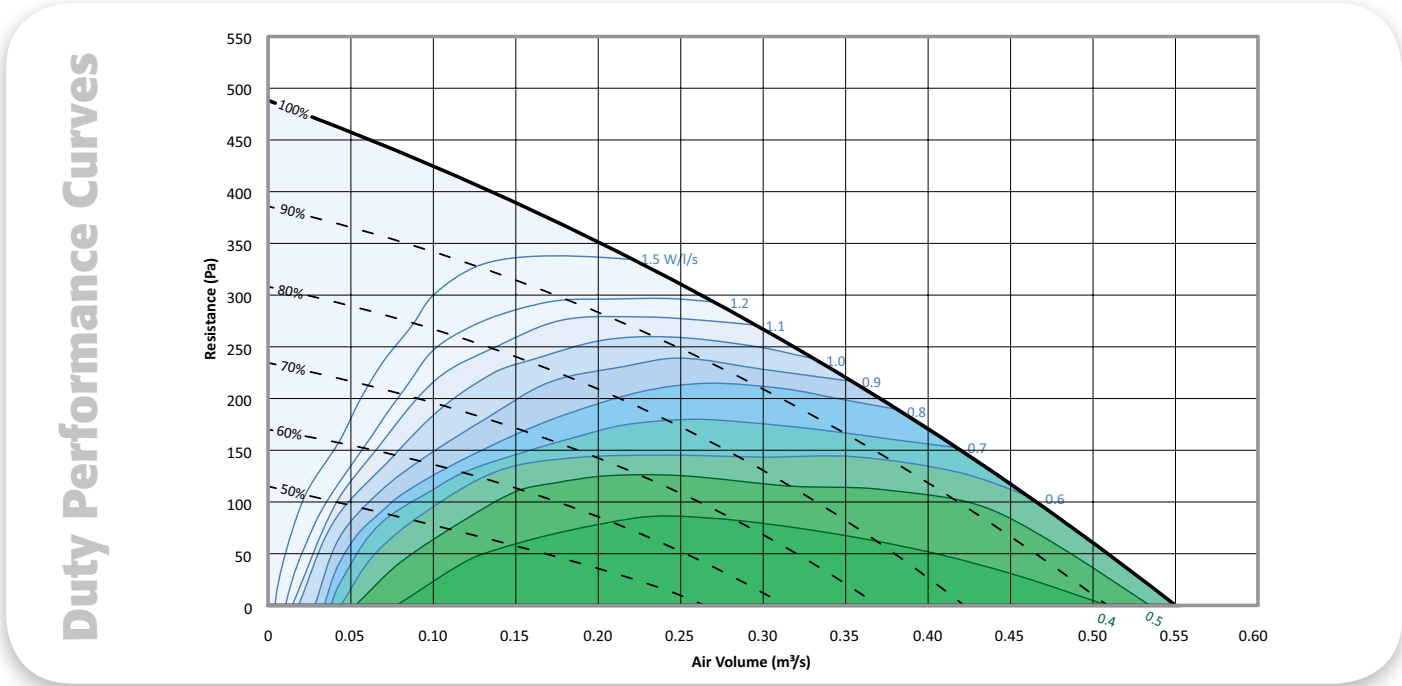
SIZE 3 - CAT0343-1

Selection Data

Unit Size 4 CAT0444-1

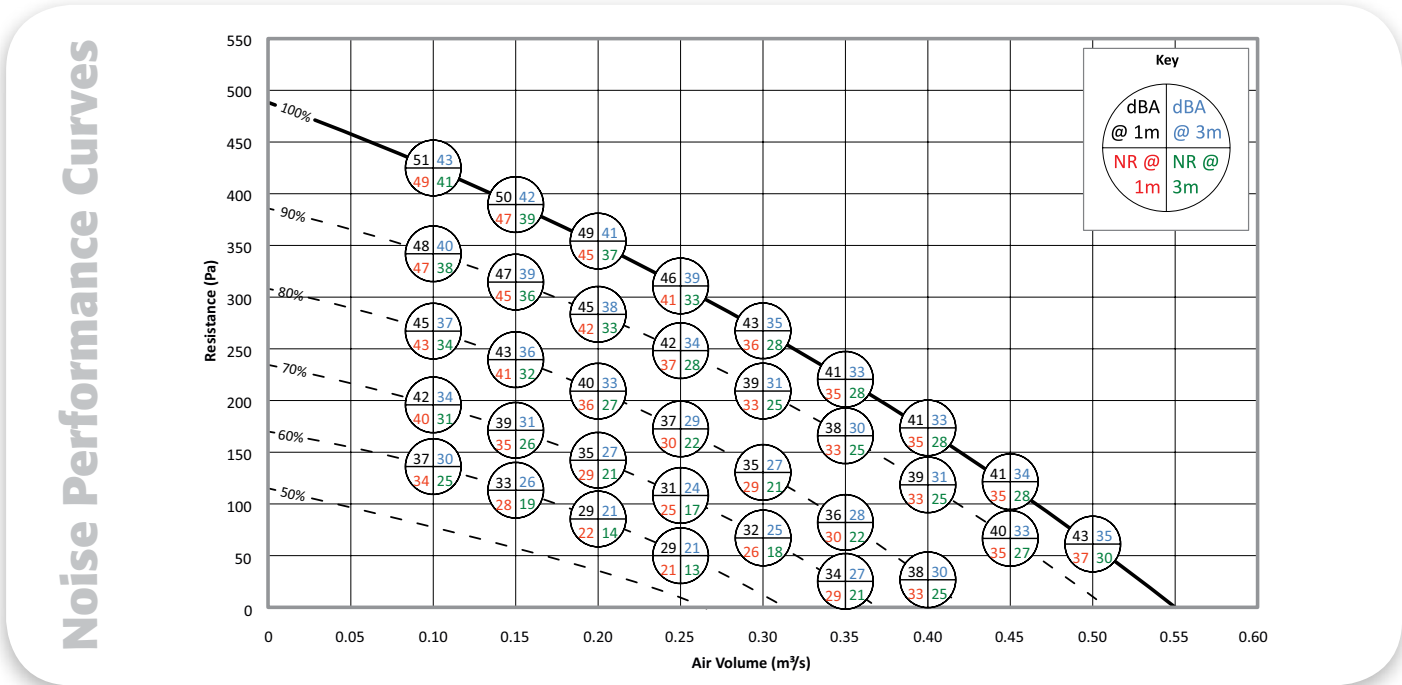
2a Performance

Size	Phase	Motor Size	Voltage	Fan Speed	Full Load Current	Speed Control
CAT0444-1	1 Phase	0.32 kW	230 VAC	2270 rpm	1.2 A	EC



SFP = $\frac{\text{Electrical input power (Watts)}}{\text{Air volume flow rate (litres/second)}}$

Note: SFP figures quoted at voltages tested in accordance with BS EN ISO 5801:2008, BS 848-1:2007.

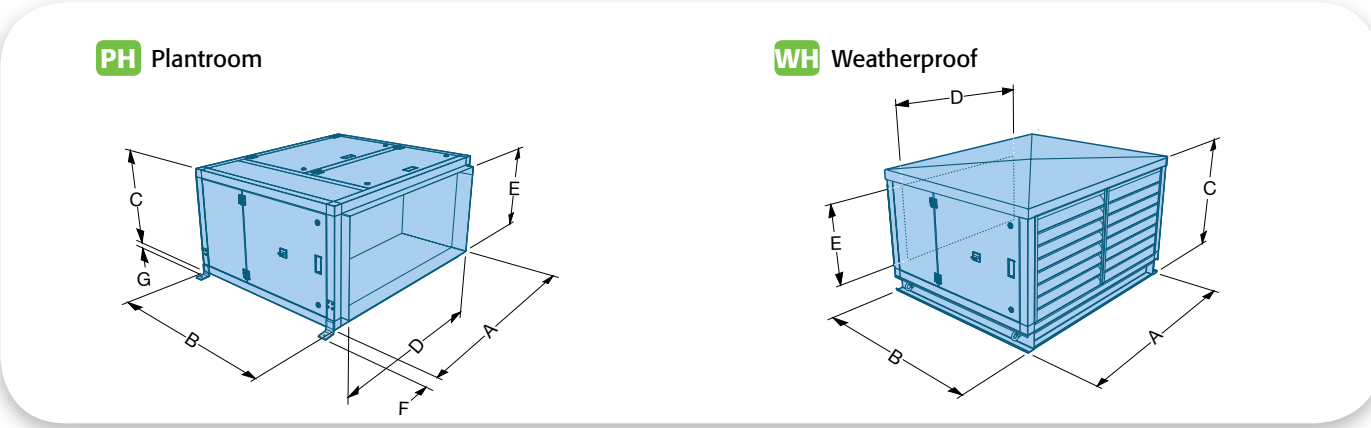


Note: NR levels are dependent upon environmental conditions.
Tolerances:
On flow rates: +/- 5%
On acoustic power and pressure: Levels: +/- 3 dB
By octave band: +/- 5 dB

2b Unit Configuration

Configuration and Handling

CAT0444-1 / PH WH / EE / LT RB / ISC
RT LB CPSC



Unit Type	Dimensions mm							Weight kg	Configuration Options			
	A	B	C	D	E	F	G		LT	LB	RT	RB
CAT4 Plantroom Twin Extract	1100	950	600	1000	500	50	25	120	✓	✓	✓	✓
CAT4 Weatherproof Twin Extract	1100	950	725	1000	500			150	✓		✓	

2c Controls

CAT0444-1 / PH / EE / LT / ISC
WH RT RB LB CPSC

Unit Type	Integral to AHU	Loose panel
CAT0444-1	CPF0-1/P/C	CPF0-1/N/C

Note: If no control panel is purchased the unit will be supplied with a main isolator.

2d Noise and Silencer Data

Fan Voltage	Fan Speed rpm	Sound Spectrum dB re 10 ⁻¹² W PWL Centre Frequency (Hz)								Casing Noise Breakout			
		63	125	250	500	1k	2k	4k	8k	NR @ 1m	NR @ 3m	dBA @ 1m	dBA @ 3m
100%	2270	72	67	59	53	43	46	41	39	36	28	43	35
90%	2043	73	67	57	50	40	43	38	36	37	28	42	34
80%	1816	68	62	53	46	37	39	34	32	30	22	37	29
70%	1589	67	61	51	42	33	35	29	26	29	21	35	27
60%	1362	68	60	47	38	29	31	24	20	28	19	33	26

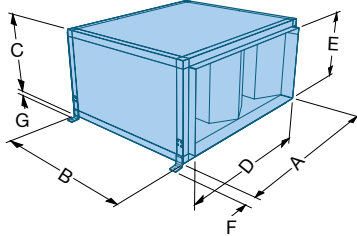
Centre Frequency	63	125	250	500	1k	2k	4k	8k
Case Insertion Loss	-3	-5	-14	-19	-26	-22	-22	-15

Note: Independently acoustically tested to BS EN ISO 3744:2010.

Silencer Option	Sound Spectrum dB re 10 ⁻¹² W PWL Centre Frequency (Hz)								
	CATVA0400/1200	63	125	250	500	1k	2k	4k	8k
Induct Loss		-6	-8	-12	-19	-28	-30	-24	-21
Dimensions mm	A	B	C	D	E	F	G	Weight kg	
Plantroom CATVA0400/1200/STD	1100	1300	600	920	500	50	25	125	
Weatherproof CATVA0400/1200/W/STD	1100	1300	725	725	500			155	

Note: The silencer will add a maximum of 8 Pa to the external resistance.

Silencer

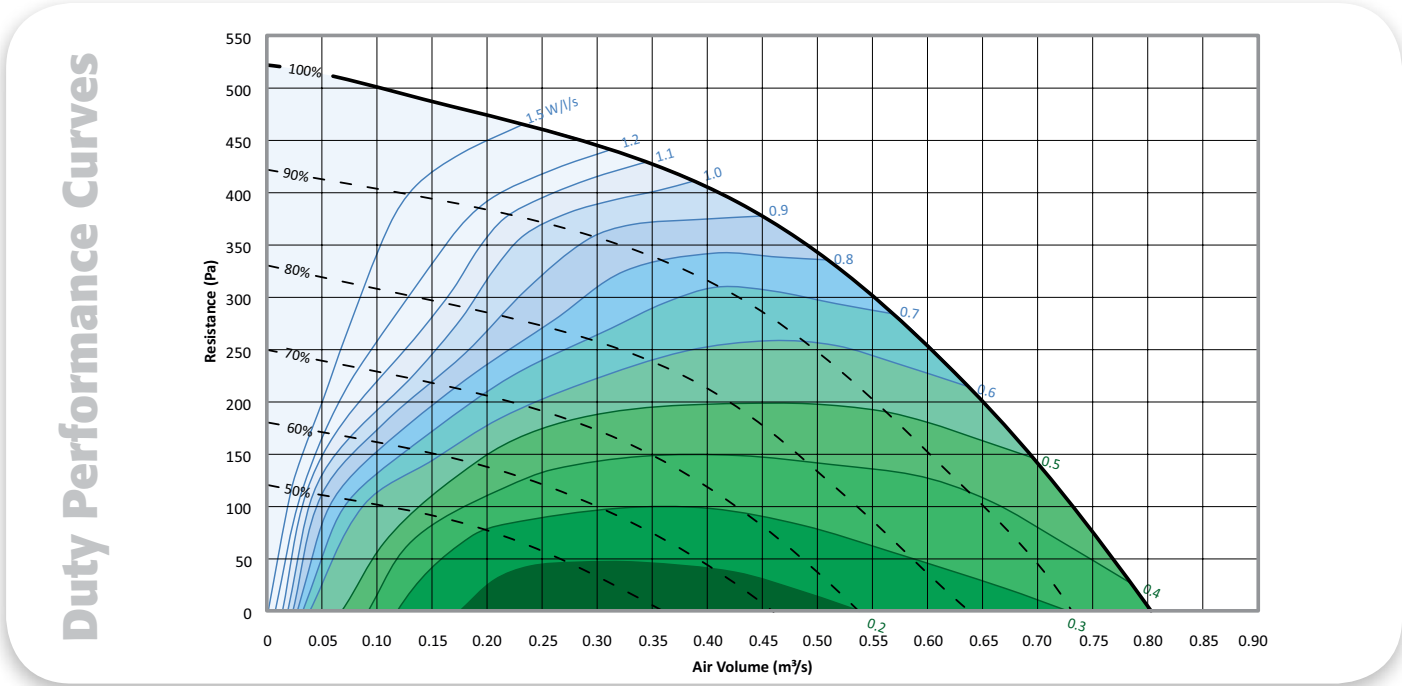


Selection Data

Unit Size 5 CAT0545-1

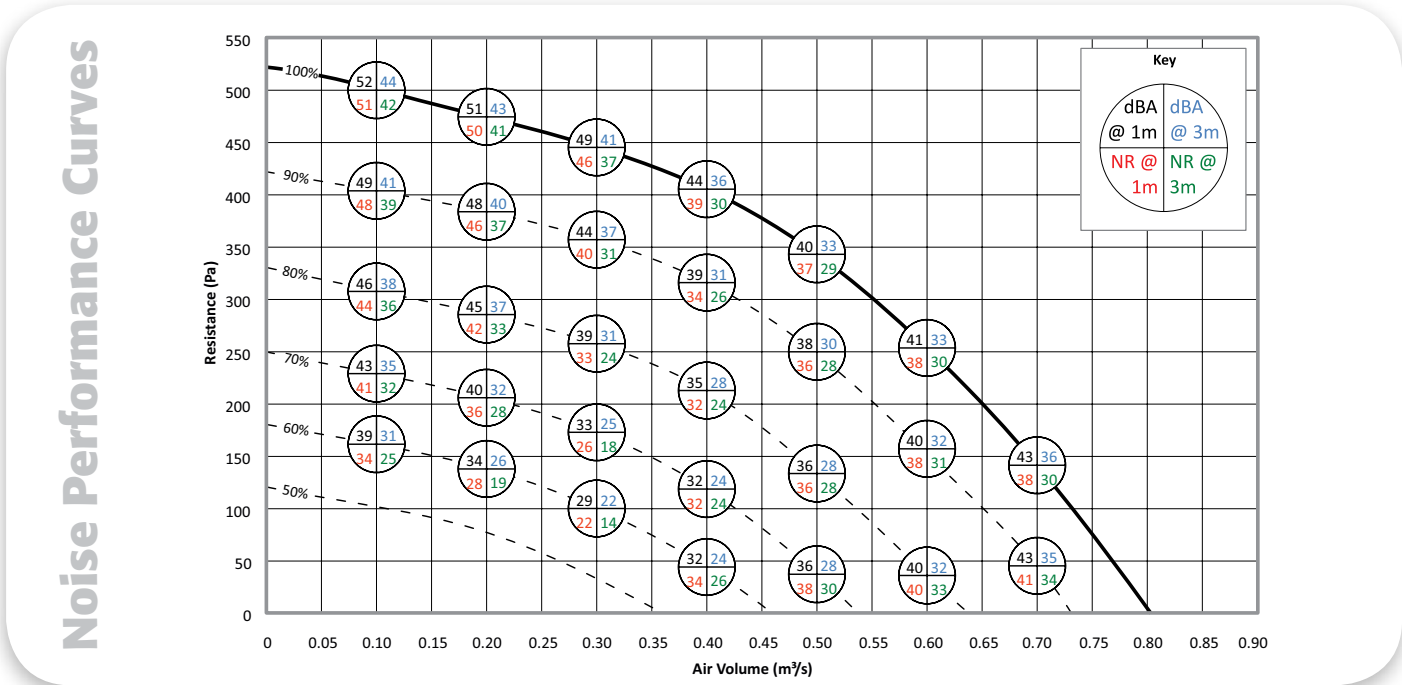
2a Performance

Size	Phase	Motor Size	Voltage	Fan Speed	Full Load Current	Speed Control
CAT0545-1	1 Phase	0.4 kW	230 VAC	2010 rpm	1.5 A	EC



SFP = $\frac{\text{Electrical input power (Watts)}}{\text{Air volume flow rate (litres/second)}}$

Note: SFP figures quoted at voltages tested in accordance with BS EN ISO 5801:2008, BS 848-1:2007.



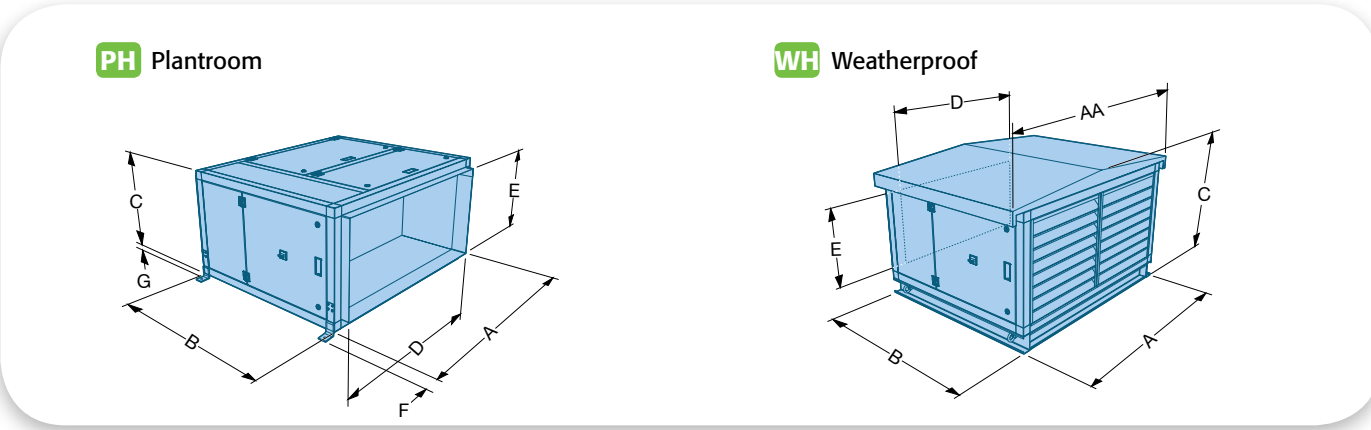
Note: NR levels are dependent upon environmental conditions.
Tolerances:
On flow rates: +/- 5%
On acoustic power and pressure: Levels: +/- 3 dB
By octave band: +/- 5 dB

Note: Data for design guidance only. For full details, outline drawings are available upon request.

2b Unit Configuration

Configuration and Handling

CAT0545-1 / PH WH / EE / LT RB / ISC
RT LB CPSC



Unit Type	Dimensions mm								Weight kg	Configuration Options			
	A	AA	B	C	D	E	F	G		LT	LB	RT	RB
CAT5 Plantroom Twin Extract	1265		1050	650	1165	550	75	25	140	✓	✓	✓	✓
CAT5 Weatherproof Twin Extract	1265	1415	1050	825	1165	550			185	✓		✓	

2c Controls

CAT0545-1 / PH / EE / LT / ISC
WH RT RB LB
CPSC

Unit Type	Integral to AHU	Loose panel
CAT0545-1	CPF0-1/P/C	CPF0-1/N/C

Note: If no control panel is purchased the unit will be supplied with a main isolator.

2d Noise and Silencer Data

Fan Voltage	Fan Speed rpm	Sound Spectrum dB re 10 ⁻¹² W PWL Centre Frequency (Hz)								Casing Noise Breakout			
		63	125	250	500	1k	2k	4k	8k	NR @ 1m	NR @ 3m	dBA @ 1m	dBA @ 3m
100%	2010	70	62	56	51	44	46	41	44	38	30	41	33
90%	1809	68	61	52	48	40	43	38	42	36	28	38	30
80%	1608	66	59	49	45	36	40	34	38	32	24	35	28
70%	1407	63	56	46	41	33	36	30	35	29	21	32	24
60%	1206	64	56	44	38	28	31	26	23	24	15	30	23

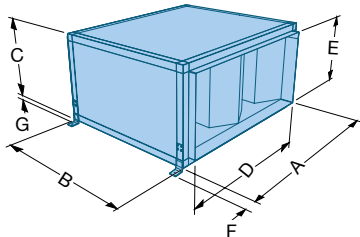
Centre Frequency	63	125	250	500	1k	2k	4k	8k
Case Insertion Loss	-3	-5	-14	-19	-26	-22	-22	-15

Note: Independently acoustically tested to BS EN ISO 3744:2010.

Silencer Option	Sound Spectrum dB re 10 ⁻¹² W PWL Centre Frequency (Hz)								
	CATVA0500/1200	63	125	250	500	1k	2k	4k	8k
Induct Loss		-6	-8	-12	-19	-28	-30	-24	-21
Dimensions mm	A	AA	B	C	D	E	F	G	Weight kg
Plantroom CATVA0500/1200/STD	1265		1300	650	1165	550	75	25	140
Weatherproof CATVA0500/1200/W/STD	1265	1415	1300	825	1165	550			180

Note: The silencer will add a maximum of 11 Pa to the external resistance.

Silencer



Note: Data for design guidance only. For full details, outline drawings are available upon request.

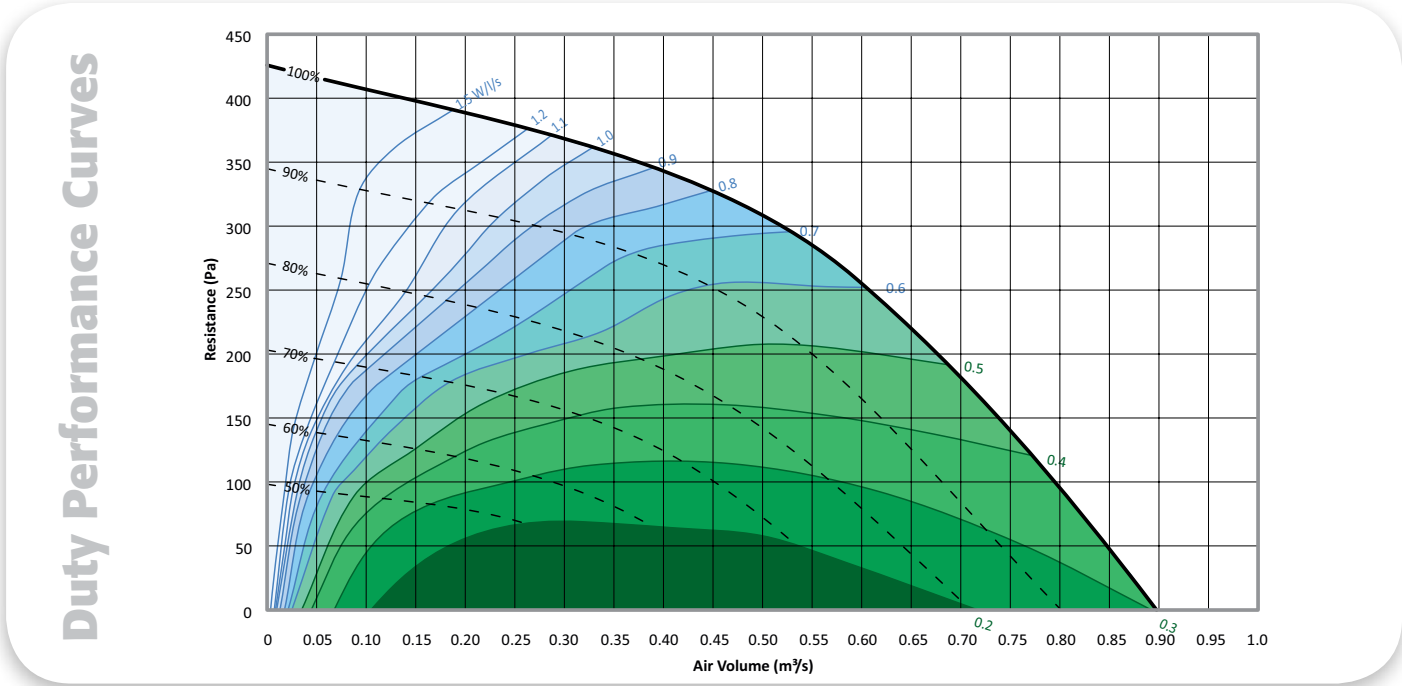
SIZE 5 - CAT0545-1

Selection Data

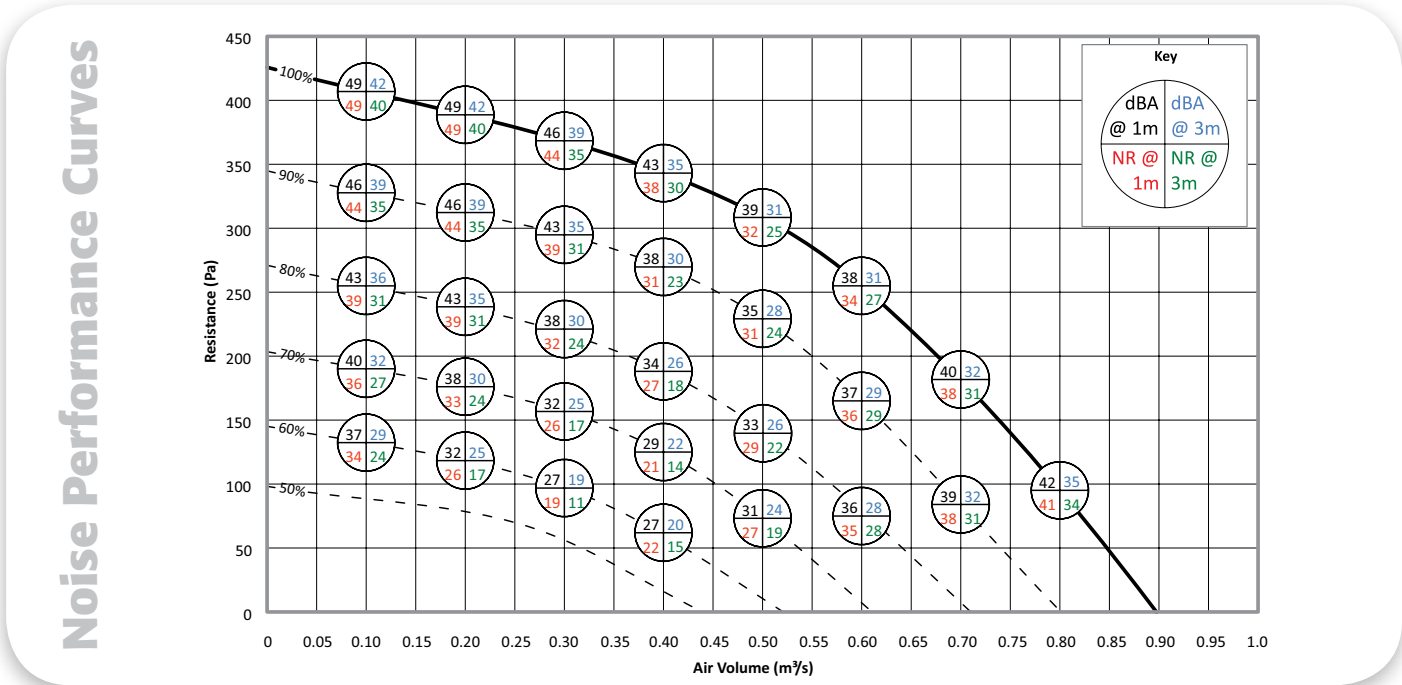
Unit Size 6 CAT0646-1

2a Performance

Size	Phase	Motor Size	Voltage	Fan Speed	Full Load Current	Speed Control
CAT0646-1	1 Phase	0.35 kW	230 VAC	1590 rpm	1.3 A	EC



SFP = $\frac{\text{Electrical input power (Watts)}}{\text{Air volume flow rate (litres/second)}}$
Note: SFP figures quoted at voltages tested in accordance with BS EN ISO 5801:2008, BS 848-1:2007.

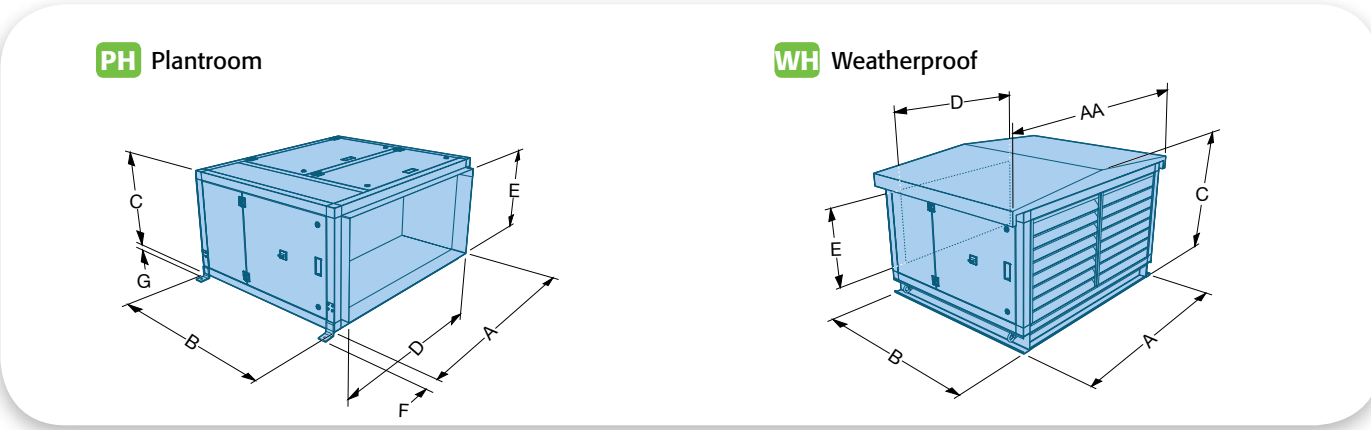


Note: NR levels are dependent upon environmental conditions.
Tolerances:
On flow rates: +/- 5%
On acoustic power and pressure: Levels: +/- 3 dB
By octave band: +/- 5 dB

2b Unit Configuration

Configuration and Handling

CAT0646-1 / PH WH / EE / LT RB / ISC
RT LB CPSC



Unit Type	Dimensions mm								Weight kg	Configuration Options			
	A	AA	B	C	D	E	F	G		LT	LB	RT	RB
CAT6 Plantroom Twin Extract	1265		1210	730	1165	630	75	25	165	✓	✓	✓	✓
CAT6 Weatherproof Twin Extract	1265	1415	1210	905	1165	630			220	✓		✓	

2c Controls

CAT0646-1 / PH / EE / LT / ISC
WH RT RB LB
CPSC

Unit Type	Integral to AHU	Loose panel
CAT0646-1	CPF0-1/P/C	CPF0-1/N/C

Note: If no control panel is purchased the unit will be supplied with a main isolator.

2d Noise and Silencer Data

Fan Voltage	Fan Speed rpm	Sound Spectrum dB re 10 ⁻¹² W PWL Centre Frequency (Hz)								Casing Noise Breakout			
		63	125	250	500	1k	2k	4k	8k	NR@1m	NR@3m	dBA@1m	dBA@3m
100%	1590	69	64	53	49	41	42	36	43	36	29	39	31
90%	1431	66	60	50	46	38	39	33	40	33	26	36	28
80%	1272	64	58	47	42	34	36	31	32	26	18	32	25
70%	1113	63	54	45	39	30	32	29	23	21	14	29	22
60%	954	66	54	44	35	27	28	20	14	21	12	29	22

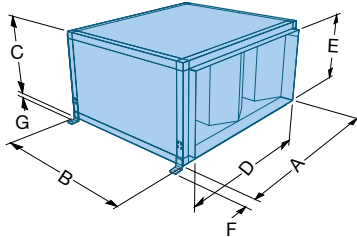
Centre Frequency	63	125	250	500	1k	2k	4k	8k
Case Insertion Loss	-3	-5	-14	-19	-26	-22	-22	-15

Note: Independently acoustically tested to BS EN ISO 3744:2010.

Silencer Option	Sound Spectrum dB re 10 ⁻¹² W PWL Centre Frequency (Hz)								
	CATVA0600/1200	63	125	250	500	1k	2k	4k	8k
Induct Loss		-6	-8	-12	-19	-28	-30	-24	-21
Dimensions mm	A	AA	B	C	D	E	F	G	Weight kg
Plantroom CATVA0600/1200/STD	1265		1300	730	1165	630	75	25	150
Weatherproof CATVA0600/1200/W/STD	1265	1415	1300	905	1165	630			190

Note: The silencer will add a maximum of 12 Pa to the external resistance.

Silencer

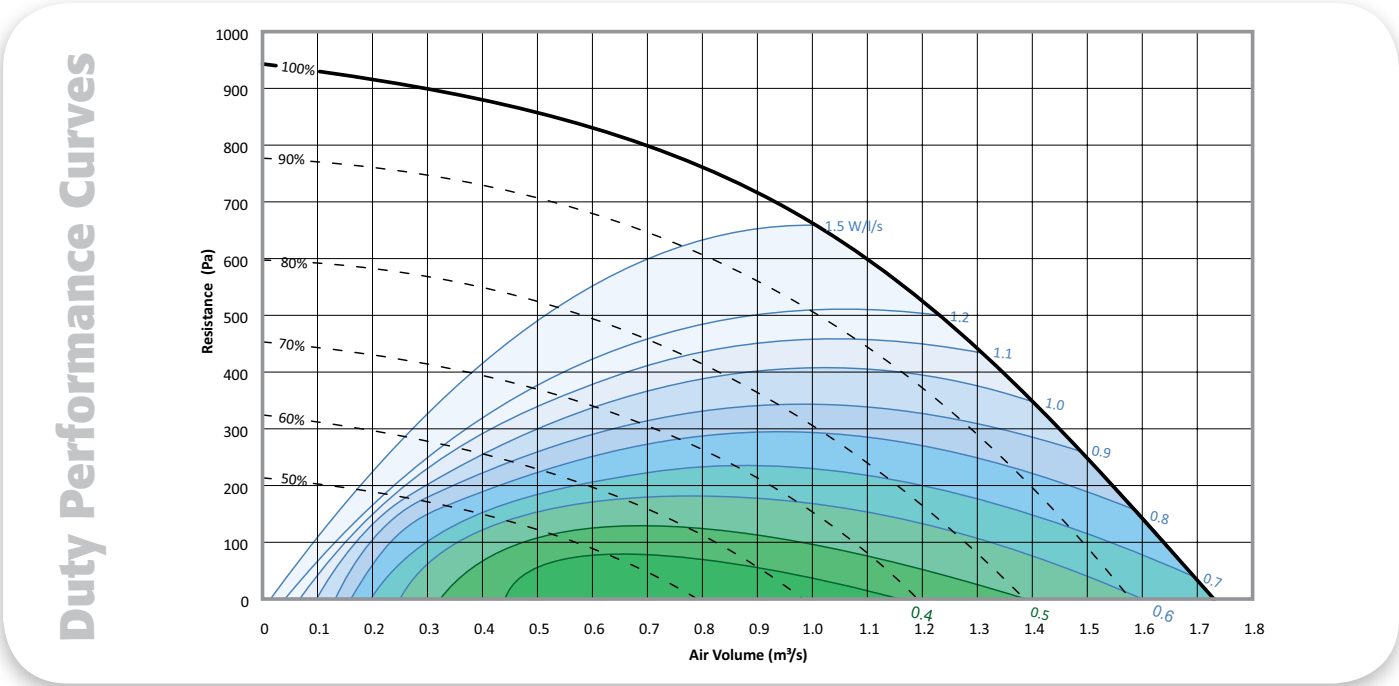


Selection Data

Unit Size 7 CAT0747-3

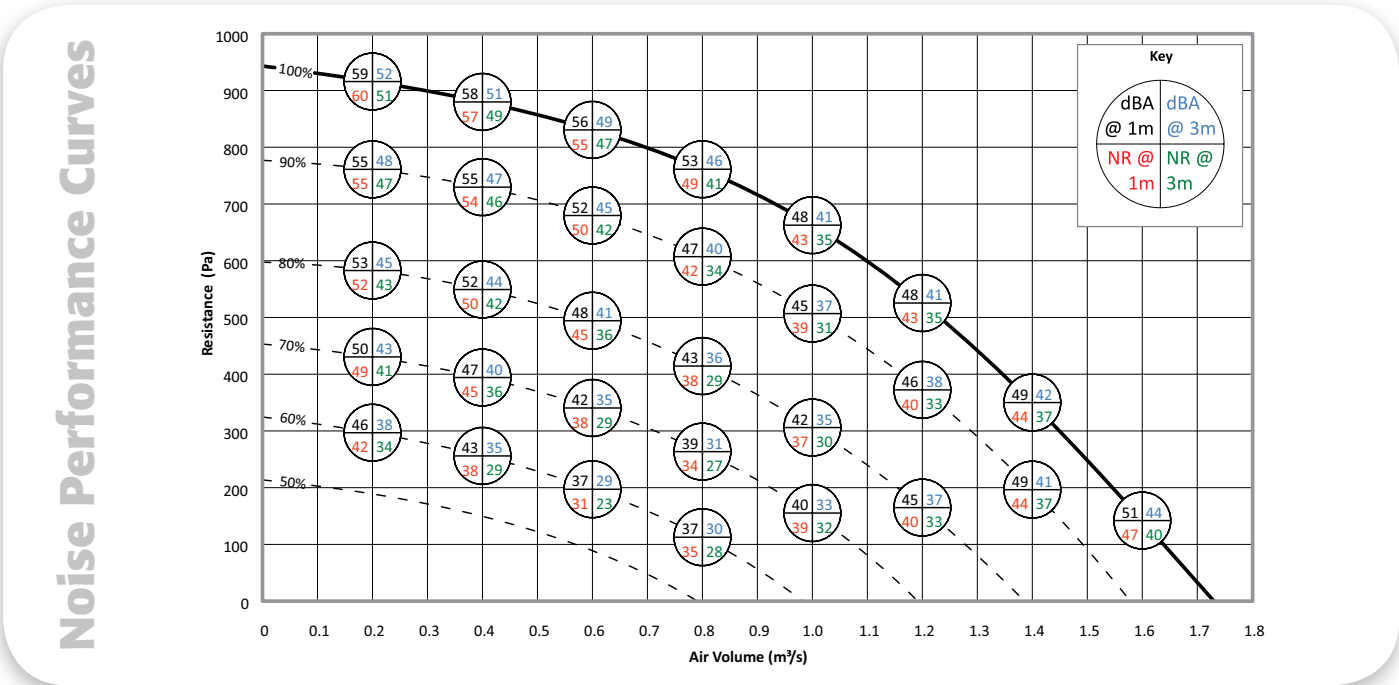
2a Performance

Size	Phase	Motor Size	Voltage	Fan Speed	Full Load Current	Speed Control
CAT0747-3	3 Phase	1.4 kW	400 VAC	2100 rpm	1.9 A	EC



SFP = $\frac{\text{Electrical input power (Watts)}}{\text{Air volume flow rate (litres/second)}}$

Note: SFP figures quoted at voltages tested in accordance with BS EN ISO 5801:2008, BS 848-1:2007.



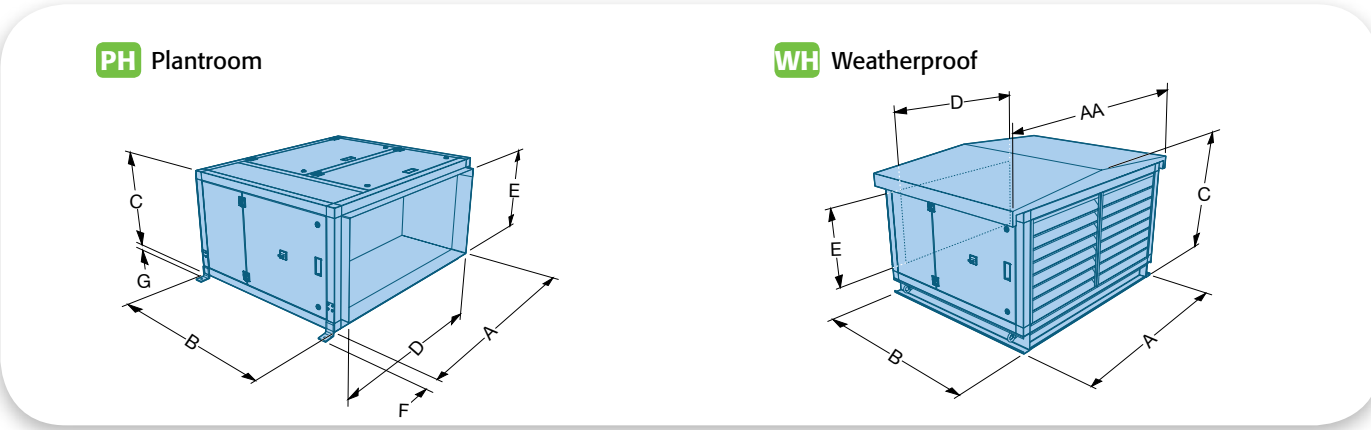
Note: NR levels are dependent upon environmental conditions.
Tolerances:
On flow rates: +/- 5%
On acoustic power and pressure: Levels: +/- 3 dB
By octave band: +/- 5 dB

Note: Data for design guidance only. For full details, outline drawings are available upon request.

2b Unit Configuration

Configuration and Handling

CAT0747-3 / PH WH / EE / LT RB / ISC RT LB CPSC



Unit Type	Dimensions mm								Weight kg	Configuration Options			
	A	AA	B	C	D	E	F	G		LT	LB	RT	RB
CAT7 Plantroom Twin Extract	1725		1390	820	1625	720	75	25	230	✓	✓	✓	✓
CAT7 Weatherproof Twin Extract	1725	1875	1390	995	1625	720			300	✓		✓	

2c Controls

CAT0747-3 / PH / EE / LT / ISC WH RT RB LB CPSC

Unit Type	Integral to AHU	Loose panel
CAT0747-3	CPF0-3/P/C	CPF0-3/N/C

Note: If no control panel is purchased the unit will be supplied with a main isolator.

2d Noise and Silencer Data

Fan Voltage	Fan Speed rpm	Sound Spectrum dB re 10 ⁻¹² W PWL Centre Frequency (Hz)								Casing Noise Breakout			
		63	125	250	500	1k	2k	4k	8k	NR @ 1m	NR @ 3m	dBA @ 1m	dBA @ 3m
100%	2100	76	69	65	60	52	52	46	47	42	35	47	40
90%	1890	74	68	63	57	49	48	44	45	40	32	46	39
80%	1680	72	67	58	54	46	44	40	43	36	29	42	35
70%	1470	70	65	55	49	41	40	36	40	33	26	39	32
60%	1260	71	64	54	46	37	37	32	34	32	24	38	30

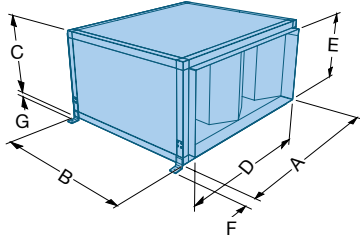
Centre Frequency	63	125	250	500	1k	2k	4k	8k
Case Insertion Loss	-3	-5	-14	-19	-26	-22	-22	-15

Note: Independently acoustically tested to BS EN ISO 3744:2010.

Silencer Option	Sound Spectrum dB re 10 ⁻¹² W PWL Centre Frequency (Hz)								
	CATVA0700/1200	63	125	250	500	1k	2k	4k	8k
Induct Loss		-6	-8	-12	-19	-28	-30	-24	-21
Dimensions mm	A	AA	B	C	D	E	F	G	Weight kg
Plantroom CATVA0700/1200/STD	1725		1300	820	1625	720	75	25	200
Weatherproof CATVA0700/1200/W/STD	1725	1875	1300	995	1625	720			250

Note: The silencer will add a maximum of 18 Pa to the external resistance.

Silencer



Note: Data for design guidance only. For full details, outline drawings are available upon request.

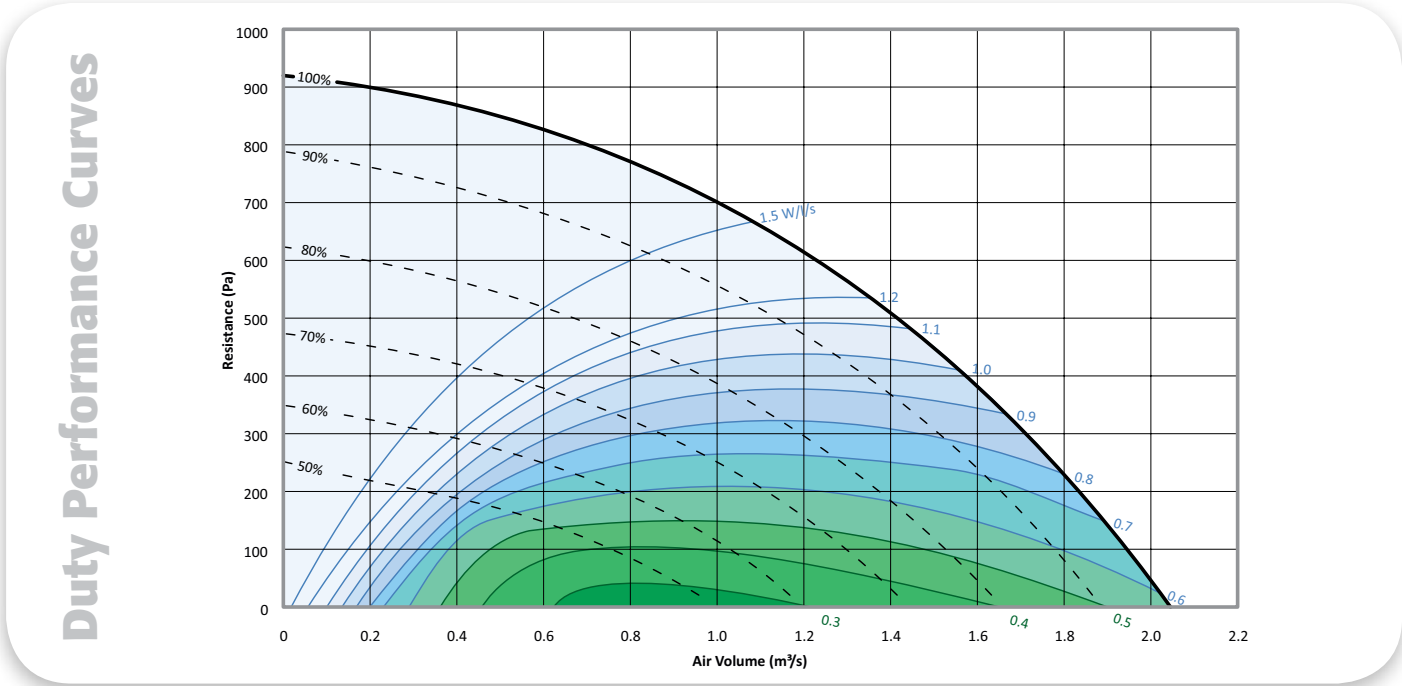
SIZE 7 - CAT0747-3

Selection Data

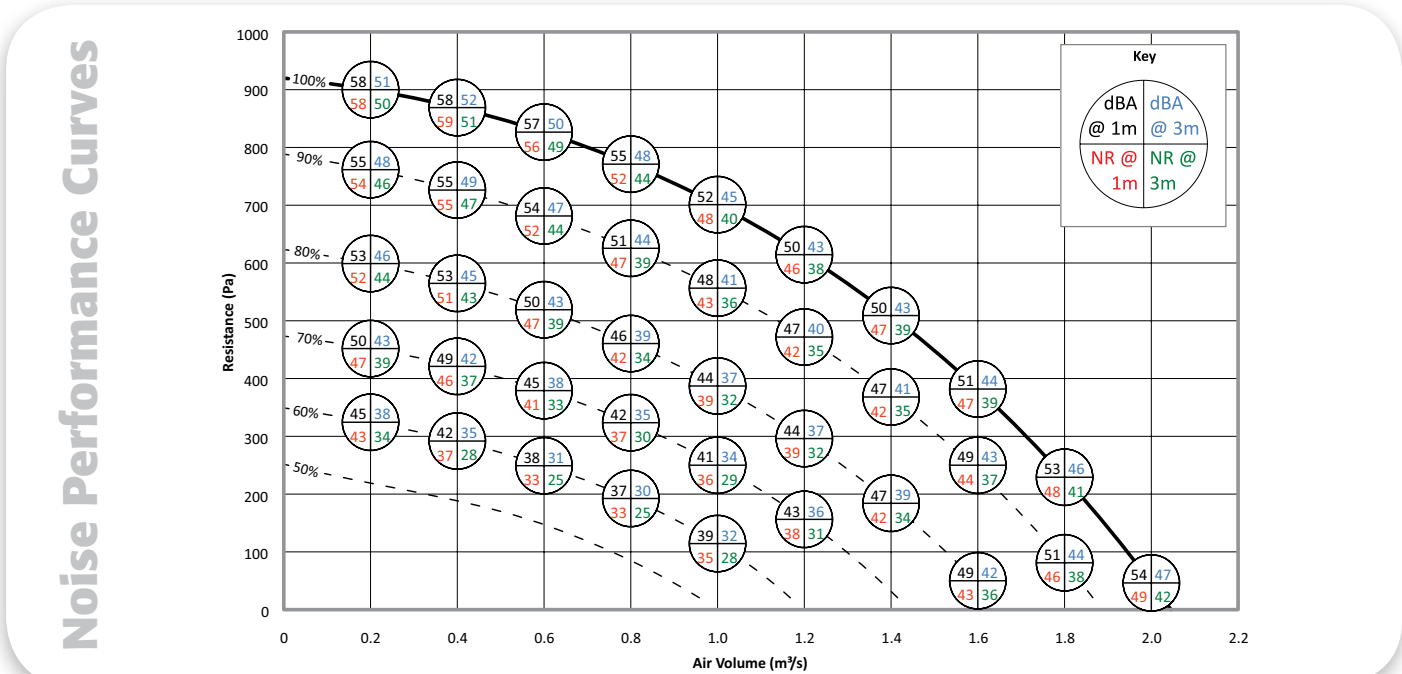
Unit Size 8 CAT0848-3

2a Performance

Size	Phase	Motor Size	Voltage	Fan Speed	Full Load Current	Speed Control
CAT0848-3	3 Phase	1.45 kW	400 VAC	1800 rpm	2 A	EC



SFP = $\frac{\text{Electrical input power (Watts)}}{\text{Air volume flow rate (litres/second)}}$
Note: SFP figures quoted at voltages tested in accordance with BS EN ISO 5801:2008, BS 848-1:2007.



Note: NR levels are dependent upon environmental conditions.
Tolerances:
On flow rates: +/- 5%
On acoustic power and pressure: Levels: +/- 3 dB
By octave band: +/- 5 dB

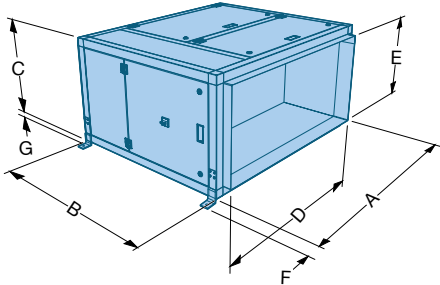
Note: Data for design guidance only. For full details, outline drawings are available upon request.

2b Unit Configuration

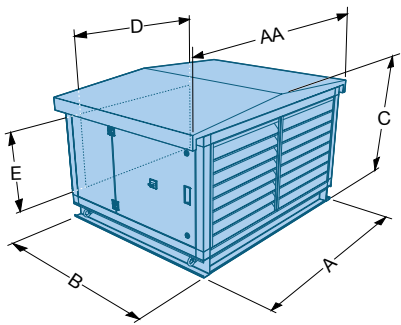
Configuration and Handling

CAT0848-3 / PH WH / EE / LT RB / ISC
RT LB CPSC

PH Plantroom



WH Weatherproof



Unit Type	Dimensions mm								Weight kg	Configuration Options			
	A	AA	B	C	D	E	F	G		LT	LB	RT	RB
CAT8 Plantroom Twin Extract	1815		1570	910	1715	810	75	25	280	✓	✓	✓	✓
CAT8 Weatherproof Twin Extract	1815	1965	1570	1085	1715	810			370	✓		✓	

2c Controls

CAT0848-3 / PH / EE / LT / ISC
WH RT RB LB CPSC

Unit Type	Integral to AHU	Loose panel
CAT0848-3	CPF0-3/P/C	CPF0-3/N/C

Note: If no control panel is purchased the unit will be supplied with a main isolator.

2d Noise and Silencer Data

Fan Voltage	Fan Speed rpm	Sound Spectrum dB re 10 ⁻¹² W PWL Centre Frequency (Hz)								Casing Noise Breakout			
		63	125	250	500	1k	2k	4k	8k	NR @ 1m	NR @ 3m	dBA @ 1m	dBA @ 3m
100%	1800	78	74	70	62	53	50	45	46	47	39	50	43
90%	1620	76	73	66	59	50	46	41	44	42	35	47	40
80%	1440	75	70	63	55	45	42	37	42	39	32	44	37
70%	1260	74	67	60	51	41	39	34	37	36	29	41	34
60%	1080	71	61	57	44	34	35	29	25	33	25	37	30

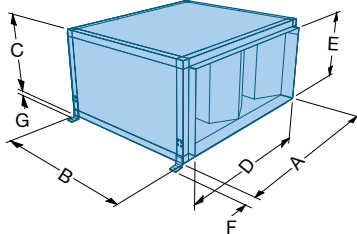
Centre Frequency	63	125	250	500	1k	2k	4k	8k
Case Insertion Loss	-3	-5	-14	-19	-26	-22	-22	-15

Note: Independently acoustically tested to BS EN ISO 3744:2010.

Silencer Option	Sound Spectrum dB re 10 ⁻¹² W PWL Centre Frequency (Hz)								
	CATVA0800/1200	63	125	250	500	1k	2k	4k	8k
Induct Loss		-6	-8	-12	-19	-28	-30	-24	-21
Dimensions mm	A	AA	B	C	D	E	F	G	Weight kg
Plantroom CATVA0800/1200/STD	1815		1300	910	1715	810	75	25	220
Weatherproof CATVA0800/1200/W/STD	1815	1965	1300	1085	1715	810			280

Note: The silencer will add a maximum of 12 Pa to the external resistance.

Silencer



Note: Data for design guidance only. For full details, outline drawings are available upon request.

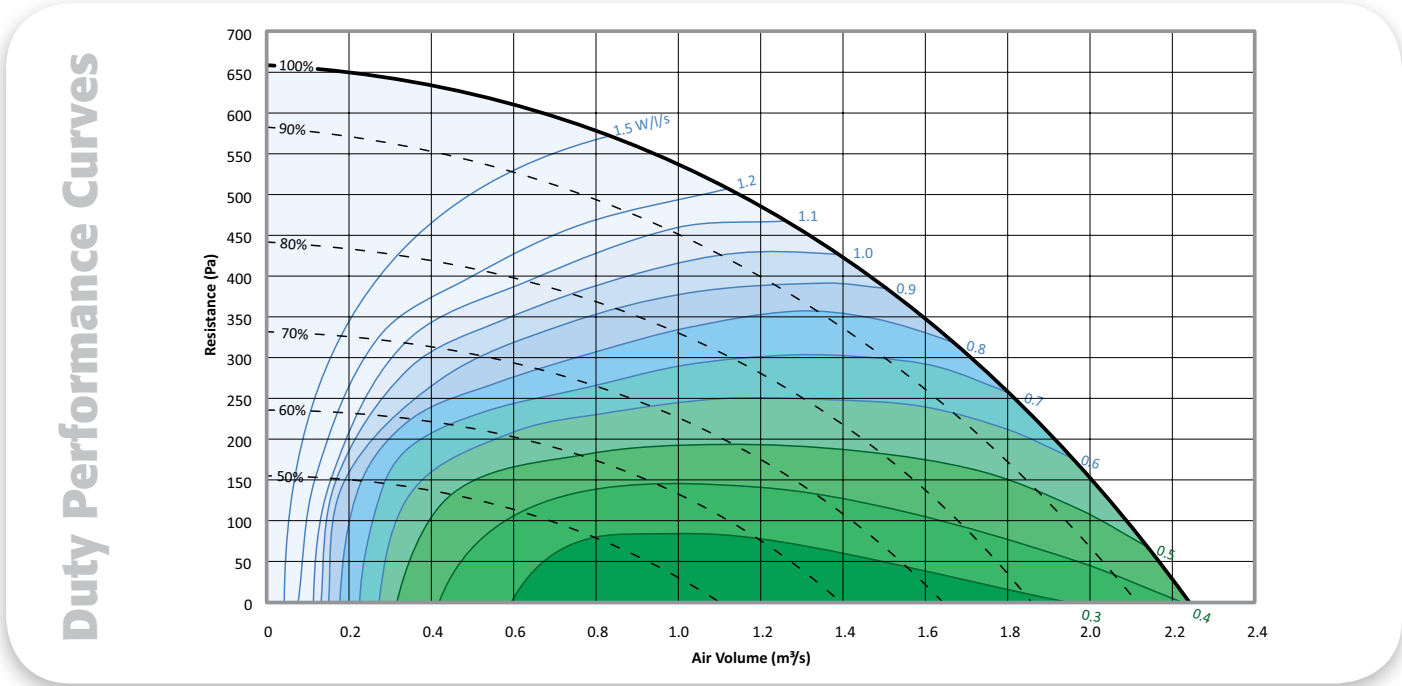
SIZE 8 - CAT0848-3

Selection Data

Unit Size 9 CAT0949-3

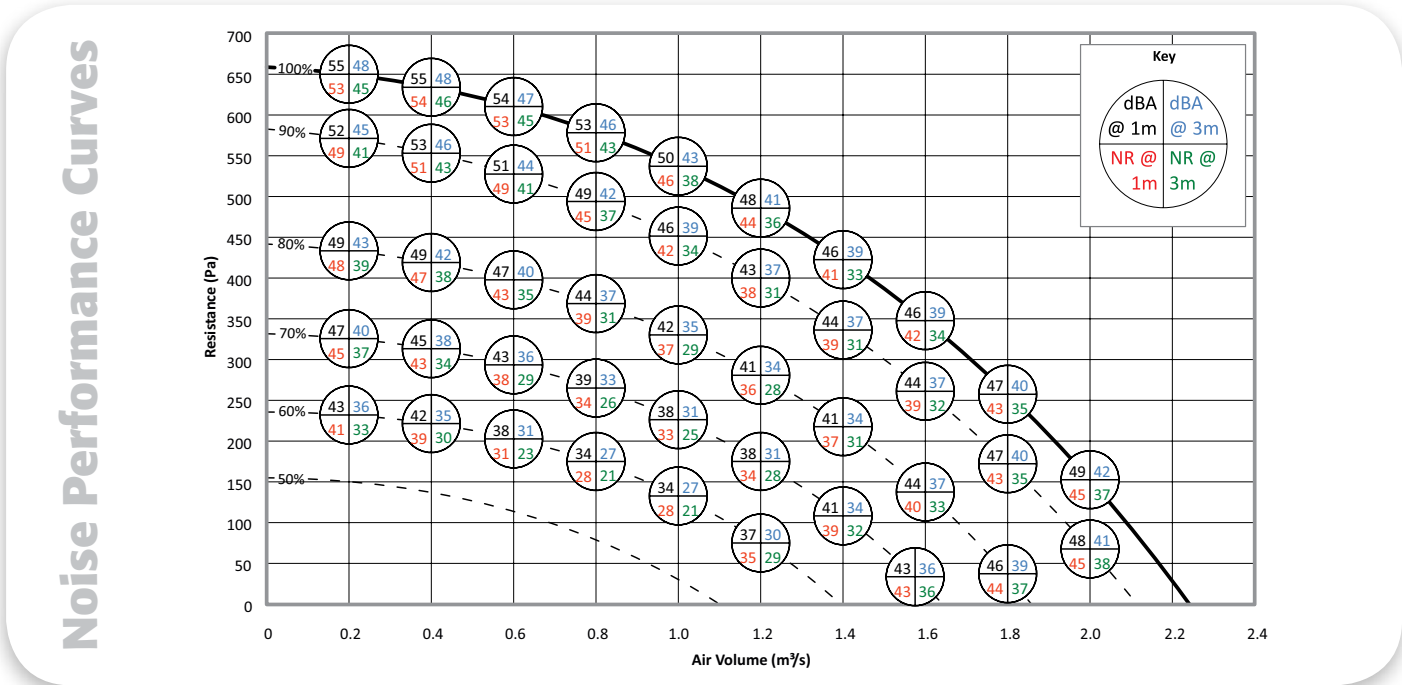
2a Performance

Size	Phase	Motor Size	Voltage	Fan Speed	Full Load Current	Speed Control
CAT0949-3	3 Phase	1.25 kW	400 VAC	1400 rpm	1.65 A	EC



SFP = Electrical input power (Watts) / Air volume flow rate (litres/second)

Note: SFP figures quoted at voltages tested in accordance with BS EN ISO 5801:2008, BS 848-1:2007.

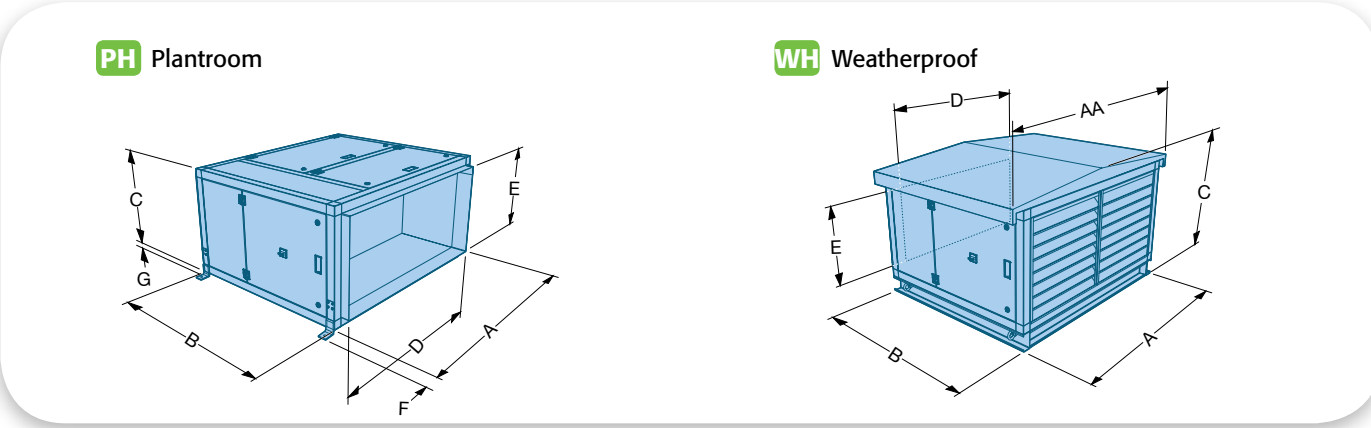


Note: NR levels are dependent upon environmental conditions.
Tolerances:
On flow rates: +/- 5%
On acoustic power and pressure: Levels: +/- 3 dB
By octave band: +/- 5 dB

2b Unit Configuration

Configuration and Handling

CAT0949-3 / PH WH / EE / LT RB / ISC RT LB CPSC



Unit Type	Dimensions mm								Weight kg	Configuration Options			
	A	AA	B	C	D	E	F	G		LT	LB	RT	RB
CAT9 Plantroom Twin Extract	1795		1750	1000	1695	900	75	25	330	✓	✓	✓	✓
CAT9 Weatherproof Twin Extract	1795	1945	1750	1175	1695	900			420	✓		✓	

2c Controls

CAT0949-3 / PH / EE / LT / ISC WH RT RB LB CPSC

Unit Type	Integral to AHU	Loose panel
CAT0949-3	CPF0-3/P/C	CPF0-3/N/C

Note: If no control panel is purchased the unit will be supplied with a main isolator.

2d Noise and Silencer Data

Fan Voltage	Fan Speed rpm	Sound Spectrum dB re 10 ⁻¹² W PWL Centre Frequency (Hz)								Casing Noise Breakout			
		63	125	250	500	1k	2k	4k	8k	NR @ 1m	NR @ 3m	dBA @ 1m	dBA @ 3m
100%	1400	73	74	65	59	49	46	42	48	43	35	47	40
90%	1260	71	72	63	57	47	44	41	48	41	33	45	38
80%	1120	71	68	60	52	41	40	34	45	37	31	41	34
70%	980	68	65	57	49	37	38	30	42	34	28	38	31
60%	840	71	61	53	44	33	34	25	23	28	21	35	28

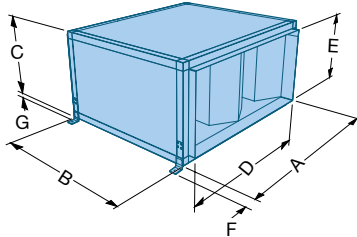
Centre Frequency	63	125	250	500	1k	2k	4k	8k
Case Insertion Loss	-3	-5	-14	-19	-26	-22	-22	-15

Note: Independently acoustically tested to BS EN ISO 3744:2010.

Silencer Option	Sound Spectrum dB re 10 ⁻¹² W PWL Centre Frequency (Hz)								
	CATVA0900/1500	63	125	250	500	1k	2k	4k	8k
Induct Loss		-6	-8	-12	-19	-28	-30	-24	-21
Dimensions mm	A	AA	B	C	D	E	F	G	Weight kg
Plantroom CATVA0900/1500/STD	1795		1600	1000	1695	900	75	25	290
Weatherproof CATVA0900/1500/W/STD	1795	1945	1600	1175	1695	900			350

Note: The silencer will add a maximum of 12 Pa to the external resistance.

Silencer

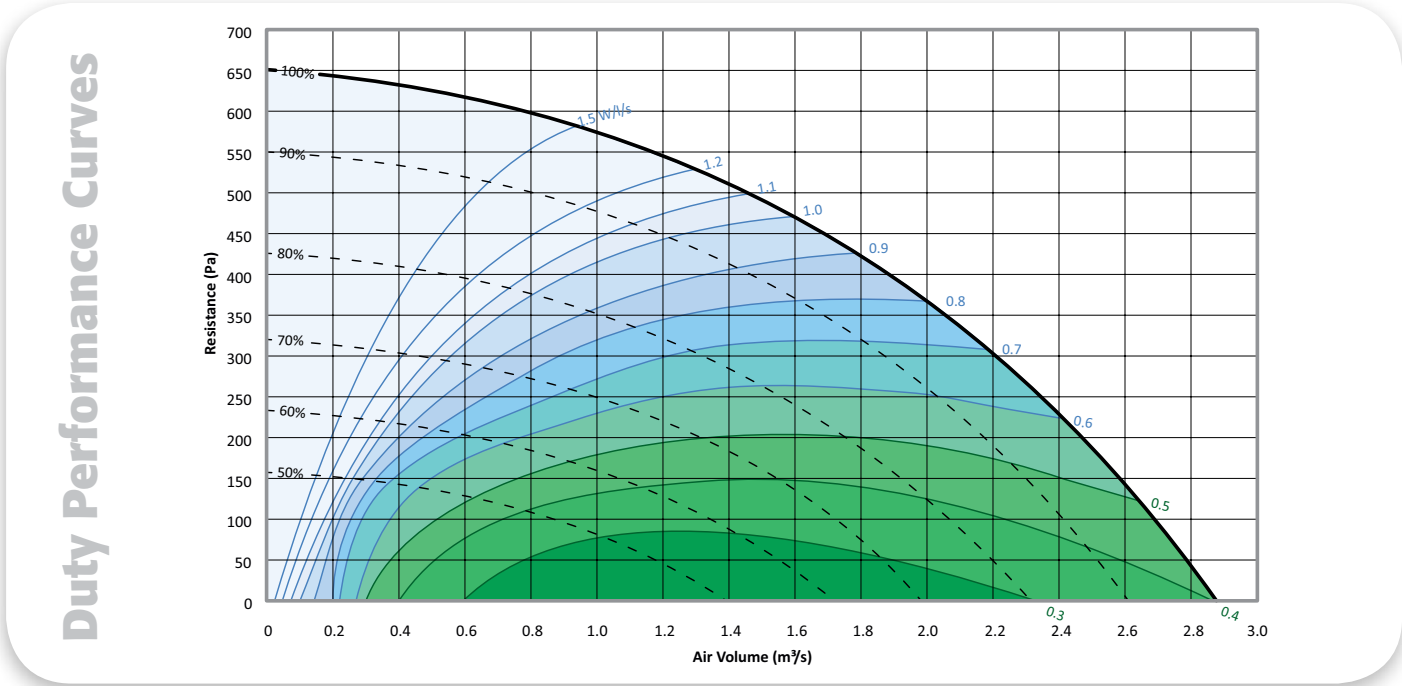


Selection Data

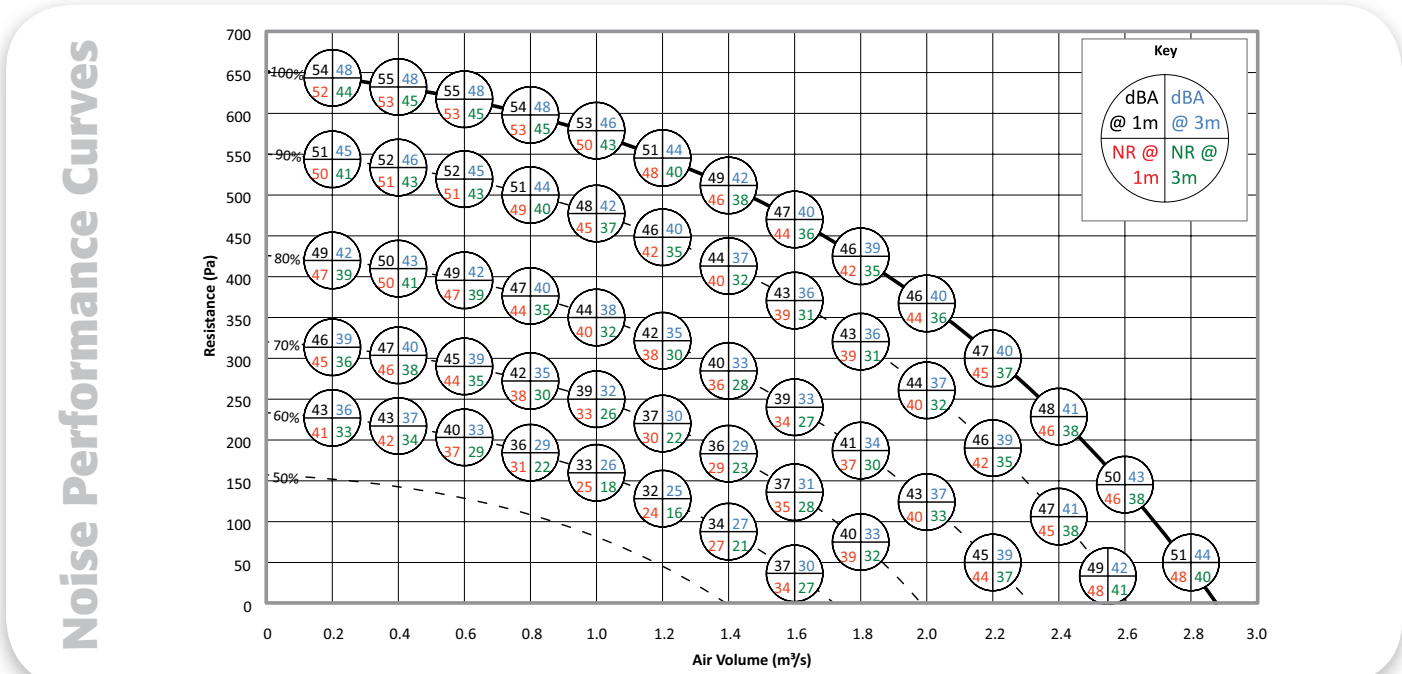
Unit Size 10 CAT10410-3

2a Performance

Size	Phase	Motor Size	Voltage	Fan Speed	Full Load Current	Speed Control
CAT10410-3	3 Phase	1.5 kW	400 VAC	1230 rpm	2.1 A	EC



SFP = $\frac{\text{Electrical input power (Watts)}}{\text{Air volume flow rate (litres/second)}}$
Note: SFP figures quoted at voltages tested in accordance with BS EN ISO 5801:2008, BS 848-1:2007.



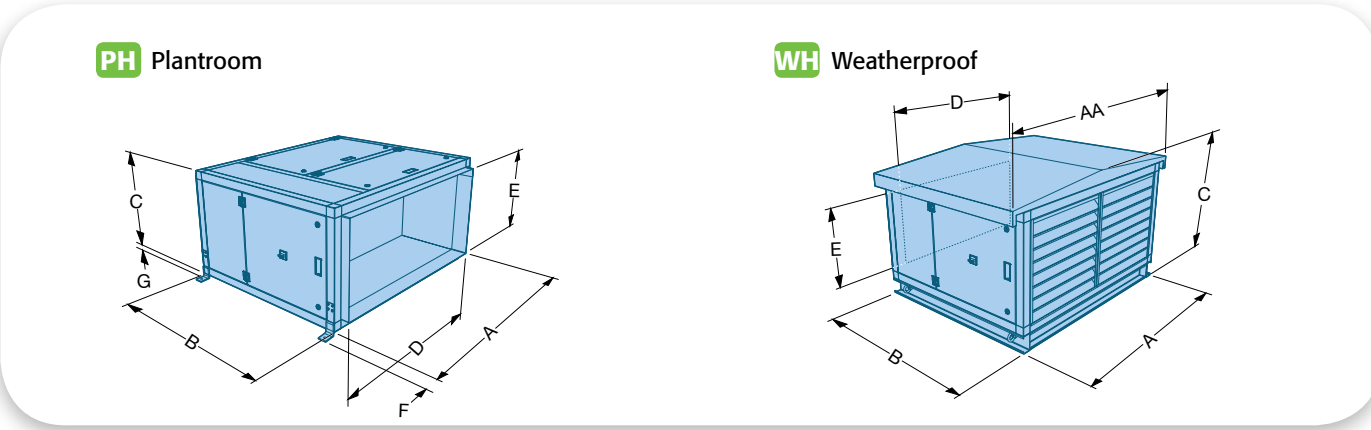
Note: NR levels are dependent upon environmental conditions.
Tolerances:
On flow rates: +/- 5%
On acoustic power and pressure: Levels: +/- 3 dB
By octave band: +/- 5 dB

Note: Data for design guidance only. For full details, outline drawings are available upon request.

2b Unit Configuration

Configuration and Handling

CAT10410-3 / PH WH / EE / LT RB / ISC
RT LB CPSC



Unit Type	Dimensions mm								Weight kg	Configuration Options			
	A	AA	B	C	D	E	F	G		LT	LB	RT	RB
CAT10 Plantroom Twin Extract	1980		1950	1100	1880	1000	75	25	390	✓	✓	✓	✓
CAT10 Weatherproof Twin Extract	1980	2130	1950	1275	1880	1000			490	✓		✓	

2c Controls

CAT10410-3 / PH / EE / LT / ISC
WH RT RB LB
CPSC

Unit Type	Integral to AHU	Loose panel
CAT10410-3	CPF0-3/P/C	CPF0-3/N/C

Note: If no control panel is purchased the unit will be supplied with a main isolator.

2d Noise and Silencer Data

Fan Voltage	Fan Speed rpm	Sound Spectrum dB re 10 ⁻¹² W PWL Centre Frequency (Hz)								Casing Noise Breakout			
		63	125	250	500	1k	2k	4k	8k	NR @ 1m	NR @ 3m	dBA @ 1m	dBA @ 3m
100%	1230	74	76	64	58	47	44	39	48	45	37	47	40
90%	1107	72	71	61	54	43	40	35	47	39	32	43	36
80%	984	71	68	58	50	40	38	32	44	36	29	40	33
70%	861	71	62	54	46	36	35	32	36	29	22	36	29
60%	738	68	58	49	41	32	30	30	24	24	16	32	25

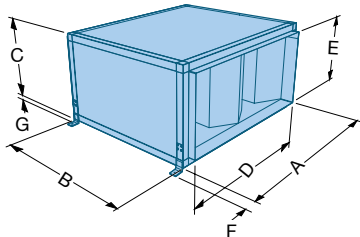
Centre Frequency	63	125	250	500	1k	2k	4k	8k
Case Insertion Loss	-3	-5	-14	-19	-26	-22	-22	-15

Note: Independently acoustically tested to BS EN ISO 3744:2010.

Silencer Option	Sound Spectrum dB re 10 ⁻¹² W PWL Centre Frequency (Hz)								
	CATVA1000/1500	63	125	250	500	1k	2k	4k	8k
Induct Loss		-6	-8	-12	-19	-28	-30	-24	-21
Dimensions mm	A	AA	B	C	D	E	F	G	Weight kg
Plantroom CATVA1000/1500/STD	1980		1600	1100	1880	1000	75	25	330
Weatherproof CATVA1000/1500/W/STD	1980	2130	1600	1275	1880	1000			390

Note: The silencer will add a maximum of 17 Pa to the external resistance.

Silencer



Note: Data for design guidance only. For full details, outline drawings are available upon request.

SIZE 10 - CAT10410-3

Controls packages for performance and efficiency



Save energy and costs with BlueSense Controls

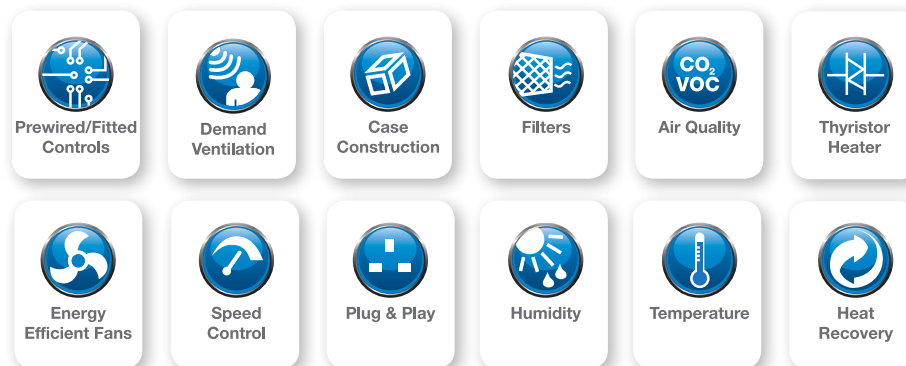
Demand ventilation solutions.

BlueSense philosophy combines intelligent control technologies with energy saving products, services and engineering expertise. BlueSense helps meet energy reduction commitments by optimising the equipment performance, improving energy efficiency, saving money and increasing equipment life expectancy.

BlueSense can be applied to a variety of projects and applications, providing efficient solutions whilst supporting design for best practice and sustainability.

BlueSense Features

- ▶ Inbuilt intelligent controls technology
- ▶ Optimises performance and efficiency
- ▶ Demand ventilation control improves air quality, reducing energy consumption and lowering operating costs
- ▶ Combined CO₂ and VOC sensing technology with energy efficient speed control
- ▶ Extending equipment life expectancy and reducing maintenance
- ▶ Short term payback on capital expenditure
- ▶ Extended warranty



Colourfan BlueSense

All products in the Colourfan range can form part of a BlueSense energy saving package. Specify BlueSense to ensure Extract or Twin Extract units are optimised with pre-wired controls, energy efficient speed controller and air quality sensor. All of these work in unison, reducing energy consumption and saving money.

A BlueSense Example



+



+



=



The sign of energy saving products, services and expertise

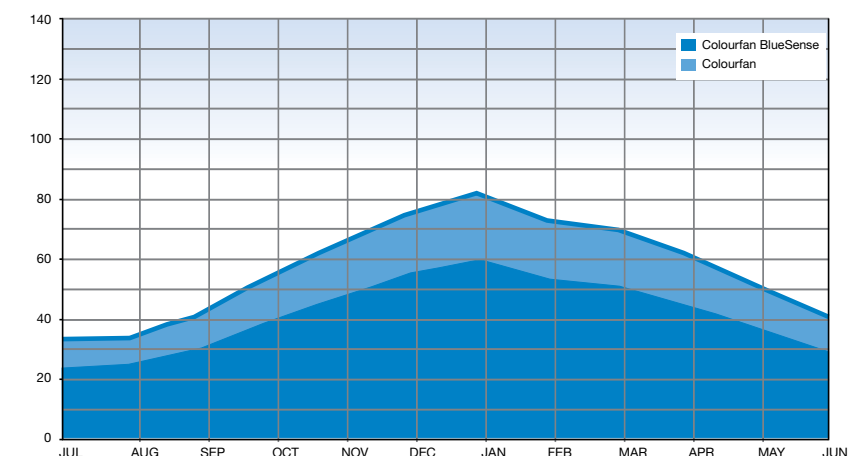
BlueSense Energy Savings

Energy Chart Life Cycle Costs

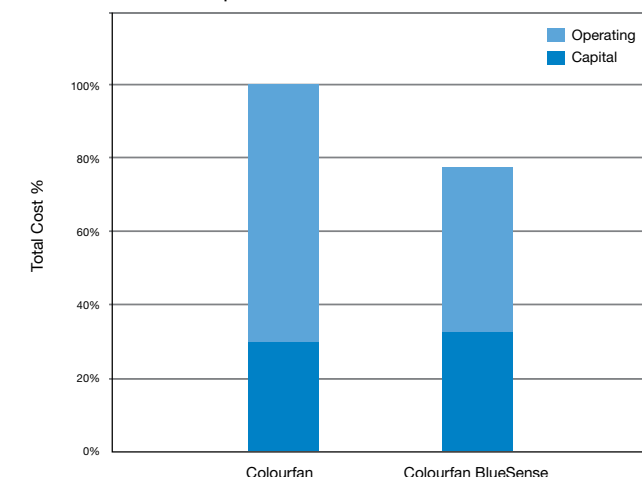


Energy comparisons for the Colourfan range illustrate how they reduce energy demands whilst improving the environment and saving money.

The example below is a typical office building, with an occupancy variation that results in an average 40% reduction in airflow requirement for 40% of the working day. The ventilation system operates from 8am till 6pm Monday to Friday, with a ventilation rate of 0.2 m³/s at 100 Pa.



Comparison of Unit Costs Over 10 Years



The heating requirement has been based upon the UK heating profile for an air temperature setpoint of 18.5 °C; the same heater size has been used for all comparisons.

Conclusion

Combining VES products with BlueSense technology will reduce the impact to the environment, minimise overall life cycle costs and payback period.

VES is experienced at discussing energy requirements with clients, our knowledge and technology can help to identify areas where savings can be made.

VES can provide assistance for both new and existing buildings.

BlueSense Includes an Extended Warranty

- ▶ 3 years with BlueSense packages.
- ▶ 5 years with BlueSense package and Post Installation Commissioning.

Please quote BlueSense with your order or contact our specialist sales team for further information. Call +44 (0)8448 15 60 60 or Email info@ves.co.uk



Colourfan® Twin Controls Introduction

VES designs and manufactures all controls systems entirely in-house, this advantage ensures that the most efficient, lowest cost, highest quality packages are available.

The CPF Twin Controls provide automatic change over upon fan failure to ensure continuous extract ventilation, including a time dependent duty share function and additional features to suit advanced applications. e.g. constant pressure and humidity control.



Air Quality Sensor

Features

- Single or three phase, twin extract fan control
- Auto changer over upon fan failure, detected by fitted and pre-wired airflow pressure switch
- Time dependent 12 Hrs duty share, with memory retention
- Optional remote status indicator, pressure, temperature and humidity functions
- BlueSense energy saving package for demand ventilation control, complete with fully integrated pre-wired control panel, energy efficient speed control and air quality sensor

Selection Matrix

		CPF
Power supply	230 VAC 50 Hz or 400 VAC 50 Hz	✓
Twin extract fan	230 VAC 50 Hz or 400 VAC 50 Hz	✓
Auto-change-over and duty share		✓
Volt free remote start/stop		✓
24 VDC fire alarm shutdown		✓
Volt Free Common Run & Trip Indication		✓
7 Day Time Clock		✓
Internal or external locations		✓
Sensor Control	Temperature	O
	Humidity	O
	Pressure	O
BlueSense - Energy Saving Package		✓
Energy Efficient Speed Control		✓
Air Quality Sensor (CO ₂ & VOC)		✓
Post Installation Optimising		✓

O = Option

Bespoke Solutions

As well as offering a wide range of standard Colourfan units VES are able to build bespoke versions for special applications and requirements.

Units can be adapted for higher specifications to address challenging locations and applications. Our experience with controls also enables high levels of integration with Building Management Systems or existing solutions, as well as matching to niche applications.

With VES you really get the full package without needing to mix and match suppliers.

Bespoke Options:

- Larger air volumes
- Dual outlet spigots
- Aesthetic requirements and paint colour finishes
- Saline environment
- Extreme temperatures

Specialist Site Services

VES operates a Specialist Site Services division, which is a market leader in the repair and refurbishment of any make or model of air handling equipment.

For buildings with faulty and deteriorating ventilation plant, the obvious choice may appear to be replacement. However there are many reasons, not least economic ones, why the repair or refurbish alternatives should also be explored.

Features of Specialist Site Services

Repair Refurbish

Maintenance

Post Install Check/Measure

Site Installation Assistance

Flat Packing

Kitchen Ventilation

Noise Control

Swimming Pool Ventilation

Energy Savings

Spares

In addition to being a First Class ISO Certified Manufacturer, the VES Specialist Site Services Division is the largest on-site solutions provider in the country.

Assistance in all Market Sectors

Retail

Restaurant Kitchen Ventilation

Healthcare

Industrial & Process Applications

Banking & Finance

Swimming Pools & Leisure

Government & Armed Forces

Education

For all enquires about our services please contact us on +44 (0)8448 15 60 60 or email sssales@ves.co.uk



10% Online Discount

100s of Ventilation Products



Sales Freephone 0800 31 66 000 vesdirect.co.uk

Product Specification

Colourfan® *Twin Acoustic Fan Small Ventilation Units*

1.1. General

- A. Provide a twin fan unit to meet the performance and configuration as indicated in the schedule and detail drawings. The twin fan unit shall be tested in accordance with BS EN ISO 5801:2008, BS 848-1:2007 and shall be of the Colourfan type as manufactured by VES Andover Ltd a company accredited with BS EN ISO 9001:2008.

1.2 Unit Construction

- A. The unit shall be provided pre-assembled comprising of a rigidly constructed case, twin centrifugal backward curved fans with direct drive motors and rectangular spigots.
- B. The unit shall be supplied with an integrated pre-wired, factory fitted and tested controls package or pre-wired to an external isolator.
- C. The unit shall be available in plantroom or weatherproof construction as indicated in the schedule and detail drawings.
- D. Sizes 0-10 shall have rectangular duct spigots complete with 30mm MEZ flange as indicated in the schedule and detail drawings.
- E. Weatherproof units shall be available with horizontal inlet spigot as indicated in the schedule and detail drawings. Plantroom units shall be available with horizontal spigot as standard.
- F. Weatherproof units shall be available with an outlet louvre or spigot as indicated in the schedule and detail drawings.
- G. The unit casework shall incorporate high quality rubber gaskets seals on service doors and panels.
- H. The unit shall be provided pre-assembled comprising of a rigidly constructed 50mm tubular aluminum case, double skinned galvanised sheet steel panels.
- I. Access for maintenance shall be via hinged panels, allowing access for the cleaning or removal of internal components as indicated in the schedule and detail drawings.
- J. Plantroom units shall be suitable for top or bottom access as indicated in the schedule and detail drawings. Weatherproof units shall be suitable for top access only via a removable weather lid.
- K. Plantroom only shall incorporate mounting brackets compatible with drop-rod support systems.
- L. 1. Sizes 0-3 Weatherproof units shall be supplied as standard with mounting feet. Plantroom units shall be available with optional mounting feet as indicated in the schedule.
2. Sizes 4-10 Weatherproof units shall be supplied as standard on a galvanised sheet steel channel base, the frame shall be 100mm high.
- M. Plantroom unit casework and spigots shall be supplied naturally finished in high quality galvanised steel as standard. Optional powdercoat colour as indicated in the schedule.
- N. Weatherproof units shall be supplied powdercoated signal grey RAL7004 as standard. Alternative colour according to schedule.
- O. The unit shall be designed to be secured to a suitable base, wall or ceiling, ensuring the use of correct fixings for the application and taking into account individual unit weight as indicated in the schedule and detail drawings.

1.3. Fans

- A. The fan impellers shall be of PA6 glass-fibre reinforced, backward curved plastic blade construction with galvanised steel mounting plate.
- B. The impellers shall be statically and dynamically balanced to G 2.5 / G 6.3 according to ISO1940 part 1.
- C. The fan impellers shall be mated with aerodynamic bell inlet eyes for high efficiency and low noise generation.
- D. The fan impellers are supplied as standard in natural uncoated finish.

1.4. Motors

- A. The fans shall incorporate external rotor motors to insulation class F, IP44 environmental protection rating and shall be supplied with thermal protection cut-out as standard.
- B. The integrated motor shall be supplied epoxy painted grey to RAL7032.

Colourfan® Twin Acoustic
Twin CAT 0051-1/PH/EE/LT/CPSC/L

Colourfan Twin Acoustic				Case Construction			Options			Ancillaries Examples			
Product	Unit Size	Fan Type	Fan Phase	Unit Config	Main Heating	Infill	Handling	Main Filter	Control Panel Section	Inlet/Outlet	Colour	Name	Part No.
CAT	00	5	1	-1								Control Panel	CPFD-1/P/C
	01	4	1	-1	/PH		/RT	[null]	/ISC	/SP	[null]	Silencer	CATV/A0000/1200/STD
	02	4	2	-1	/WH		/RB		/CPSC	/L	/R/004	Feet	NRGEX9000
	03	4	3	-1			/LT						
	04	4	4	-1			/LB						
	05	4	5	-1									
	06	4	6	-1									
	07	4	7	-3									
	08	4	8	-3									
	09	4	9	-3									
	10	4	10	-3									

Product	Unit Config	Main Heating	Infill	Handling	Main Filter	Control Panel Section	Inlet / Outlet	Colour
CAT=Colourfan Twin Acoustic	/PH=Plantroom Horizontal Inlet/Outlet /WH=Weatherproof Horizontal Inlet/Outlet	[null]=No Heating	/EE = 50mm	/RT=Right Top /RB=Right Bottom /LT=Left Top /LB=Left Bottom	[null]=No Filters	/ISC=Isolator and Speed Control /CPSC=Control Panel and Speed Control	/SP=Square Spigot /L=Laure	[null]=Galvanised /R=RAL (colours)

Please note: Weatherproof units are supplied in R7004 powdercoating as standard



1.5 Operation Environment

A. The unit shall be designed to operate with process air temperatures from -20 °C to 40 °C, and humidity up to 80%.

1.6 Controls

- A. The unit shall be fitted as standard with EC fan speed control system to match fan type with max/min speed and 0-10 VDC BMS control, i.e. Air Quality or Temperature sensor.
- B. The unit shall be available with optional unit mounted CPF control panel as manufactured and factory fitted by VES Andover Ltd to suit, or alternative loose CPF panel for installation by others. If no control panel is ordered the unit will be supplied with local isolator for unit mains connections.
- C. Fitted Controls shall be positioned as indicated in the schedule and detail drawings.
- D. Controls shall be supplied with internally mounted circuit breakers, run, trip and panel live indication and lockable door isolation switch.
- E. Control panels shall have individual circuit breakers where indicated in the schedule and detail drawings.
- F. Fitted controls shall be supplied with a wired AHU mounted LCD controller. Optional room user interfaces are available.
- G. Fitted controls shall be fully pre-wired to internal components.
- H. Automatic fan change over on airflow failure.
- I. Fully programmable digital controller with commissioning and adjustment for constant pressure, humidity and temperate applications.
- J. Duty share with 12 hour run-time memory retention.
- K. Start stop from remote volt free contacts.
- L. 7 day time.
- M. Volt free run and trip indicators.
- N. Volt free enable, and 24 VDC fire alarm interface.

1.7 Ancillaries

- A. The unit shall be fully compatible with a standard range of spigot mounted silencers. The silencers shall be suitable for duct mounting or direct mounting to the unit as indicated in the schedule.
- B. The silencer shall be a rigidly constructed 50mm tubular aluminium case double skinned galvanised sheet steel panels incorporating internal splitters lined with resin bonded mineral wool. Polythene and perforated metal sheet lining shall be available where indicated in the schedule.
- C. The silencer casework shall be provided naturally finished in high quality galvanised steel as standard. Internal and external powder coat available as indicated in the schedule. Colour to be in accordance with schedule.
- D. The plantroom unit shall be fully compatible with loose spigot mounted dampers suitable for direct fitting to the unit.
- E. Dampers shall incorporate an aluminium extruded channel frame and aluminium damper blades, mounted on nylon cogs with nylon bearing inserts. Blade operation shall be via a 12mm sq. spindle mounted to one side of the damper.
- F. Dampers shall be of opposed blade type, incorporating gasket seals between blades and sealed angles on the frame to ensure maximum sealing efficiency when the blades are closed.
- G. Dampers shall be suitable for use with optional 230 VAC or 24 VAC open/close actuator as supplied by VES Andover Ltd.

Download specification from www.ves.co.uk/information-centre

Colourfan® *Twin Acoustic* Step by Step Guide

1 Choose Duties up to 2.8 m³/s

Colourfan®
Twin Acoustic
Duties up to 2.8 m³/s



2 Specify your chosen unit

a
Performance Curve

b
Unit Configuration

c
Controls

d
Noise Data and Silencer Option

3 Add control packages for performance and efficiency
Pages 28-30

BlueSense

Filters

Demand Ventilation

Case Construction

Prewired/Fitted Controls

Air Quality

Thyristor Heater

Energy Efficient Fans

Speed Control

Plug & Play

Humidity

Temperature

Heat Recovery

4 Specify bespoke options for Colourfan® products
Page 31



Other products and services from the complete range of VES HVAC solutions:

Air Handling Units

- Supply and extract, combined or separate.
- Heat recovery including crossflow plate heat exchangers, thermal wheels and run-around coils.
- Plantroom or weatherproof, flat or stacked.
- Fitted silencers, inverters and controls.
- Matching DX condensing units.
- Various case constructions including EN 1886 certified units.

Duct Fans

- In-line centrifugal, with forward or backward curved impellers.
- Round, axial and mixed flow fans.
- Fitted silencers available on all units.
- Manual and automatic speed controllers available.

Twin Fans

- For ceiling void, plantroom and weatherproof.
- Many models and configurations.
- Fitted auto-changeover system.

Roof Extract Units

- Three ranges for volume and pressure.
- Curb and soaker sheet bases.

Wall and Ceiling Fans

- All types for commercial, industrial and domestic premises.

Kitchen Hood Extract Fans

- Heavy duty high temperature fans for hot greasy air.
- Motors out of airstream.
- Single inlet fans, in-line and vertical jet roof units.

Control Panels

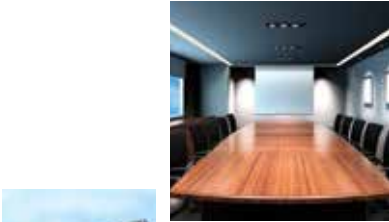
- Off the shelf and built to order panels.
- Air quality sensors and energy savers.
- Intelligent control software.
- A range of remotes including touch screen.

Noise Control

- Matching silencers available for all ventilation products.
- Silencers designed to meet noise criteria.
- Cleanable silencers.
- Weatherproof silencers.

Specialist Site Services

- Plant refurbishment.
- Energy saving upgrades.
- Noise reduction.
- Site surveys.
- Kitchen ventilation.
- AHU flat pack installation.
- Maintenance.
- Spares.



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VES reserve the right to amend product specifications and details without notice.

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VES
Better air for the built environment

For details on Colourfan product codes please turn to the back of this flap.