

Colourfan[®] Twin

HIGH EFFICIENCY SMALL VENTILATION UNITS

Wide range of models
for ceiling void, plantroom
and external locations

Low SFPs to achieve
L2 Building Regulations

Twin extract fans for
continuous extract systems

Low energy / high
efficiency fans

Variety of control options to suit
unit requirements

All units suitable for
demand ventilation with
VES BlueSense controls package

Colourfan[®] Twin
DUTIES UP TO
2.5 m³/s



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

Colourfan[®] Twin
DUTIES UP
TO 2.5 m³/s



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

Also available...

Colourfan[®]
Twin
Acoustic Units



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.

Colourfan[®]
Supply and
Supply Acoustic Units



Colourfan[®]
Extract and
Extract Acoustic Units



Colourfan[®] Twin

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.

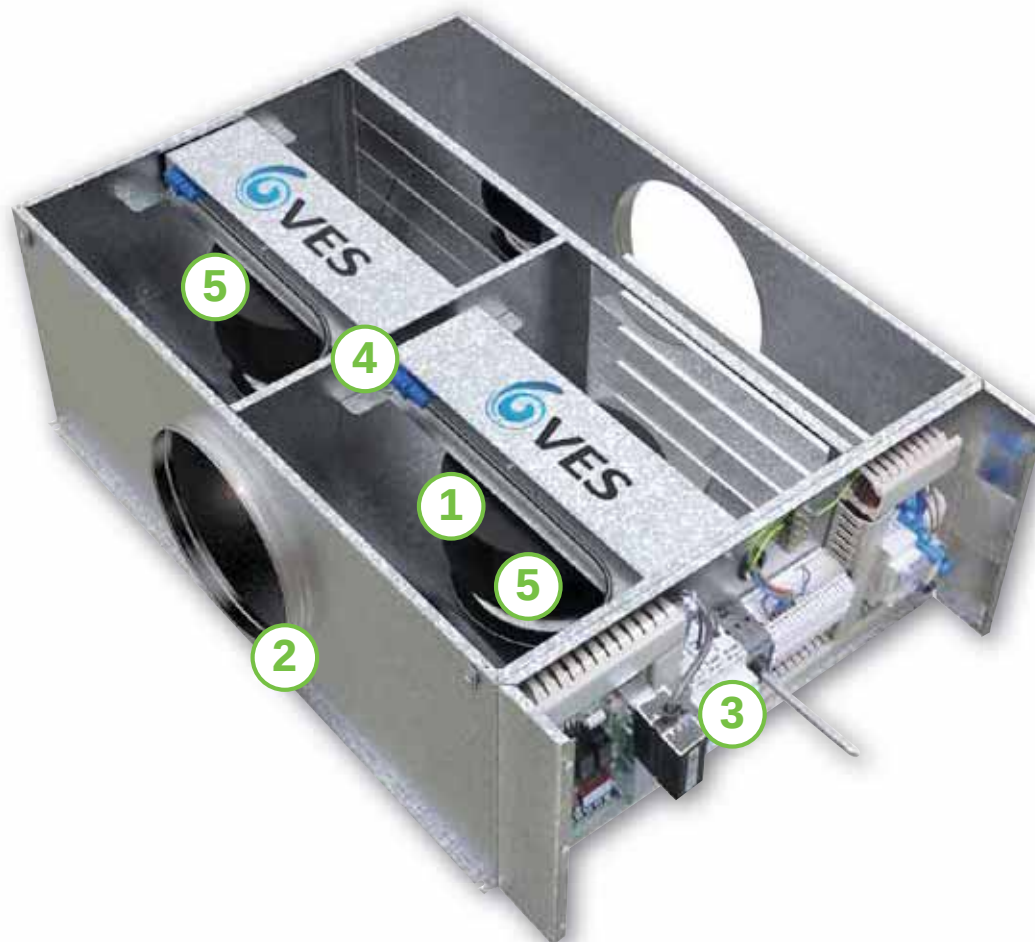
Manufactured in the UK

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

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 connectors and plug and play or pre-wired fitted controls.

Colourfan Twin Extract units are the versatile solution for a range of applications. With energy efficient, ErP compliant fans, robust case construction, the low profile units are suitable for bathrooms, toilets and changing rooms. Featuring automatic changeover and duty sharing, they minimise maintenance requirements and help ensure continuous ventilation.



Colourfan[®] Twin Features and Benefits

Energy Saving

Meet regulations, minimise noise and maximise performance.

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

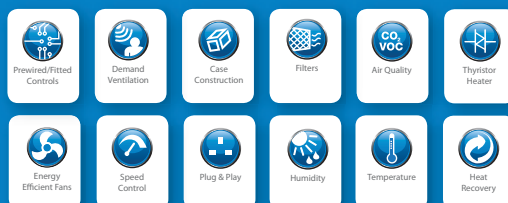
Versatile location, handling and access options meet the widest range of project requirements.

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 848-1:2007 (airside performance) and DIN 45635-38 (acoustic performance).



Integrated Controls
BlueSense energy saving packages combine intelligent technologies with energy saving products, services and engineering expertise.



High Performance Fans
Low energy backward curved, single inlet fans for optimised 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.



Easy Connections
Circular spigot connections are fitted with rubber gasket seals. Rectangular spigot connections are fitted with 30mm MEZ flange, avoiding the need for additional accessories.



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



Pre-wired Isolator & Controls
The unit can be pre-wired to a fitted external isolator or integral isolator / controls package to reduce onsite wiring requirements.



Twin Extract Fans
Twin extract fans for use in continuous extract systems. VES controls packages include auto changeover upon fan failure and time dependant duty share functions.



Multi Access
Plantroom units suitable for top and bottom access. External units suitable for top access only. Quick release lid fastenings.



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



Adjustable Mounting Feet
Weatherproof units size 0-6 are supplied with adjustable feet for uneven surfaces, sizes 7-9 are supplied on channel bases. Plantroom units can be supplied with optional feet.



Low Profile
Units are low profile and ideal for ceiling void or roof space.



Excellent Construction
Rigid single skin galvanised sheet steel for sizes 0-6. Aluminium tubular frame and galvanised double skinned panels with mineral wool slab infill for sizes 7-9.



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

BlueSense Energy Saving Package



Colourfan Unit with Integral Controls



Optional Integral Speed Controller



Optional Air Quality Sensor



The sign of energy saving products, services and expertise

For more information refer to pages 28-29

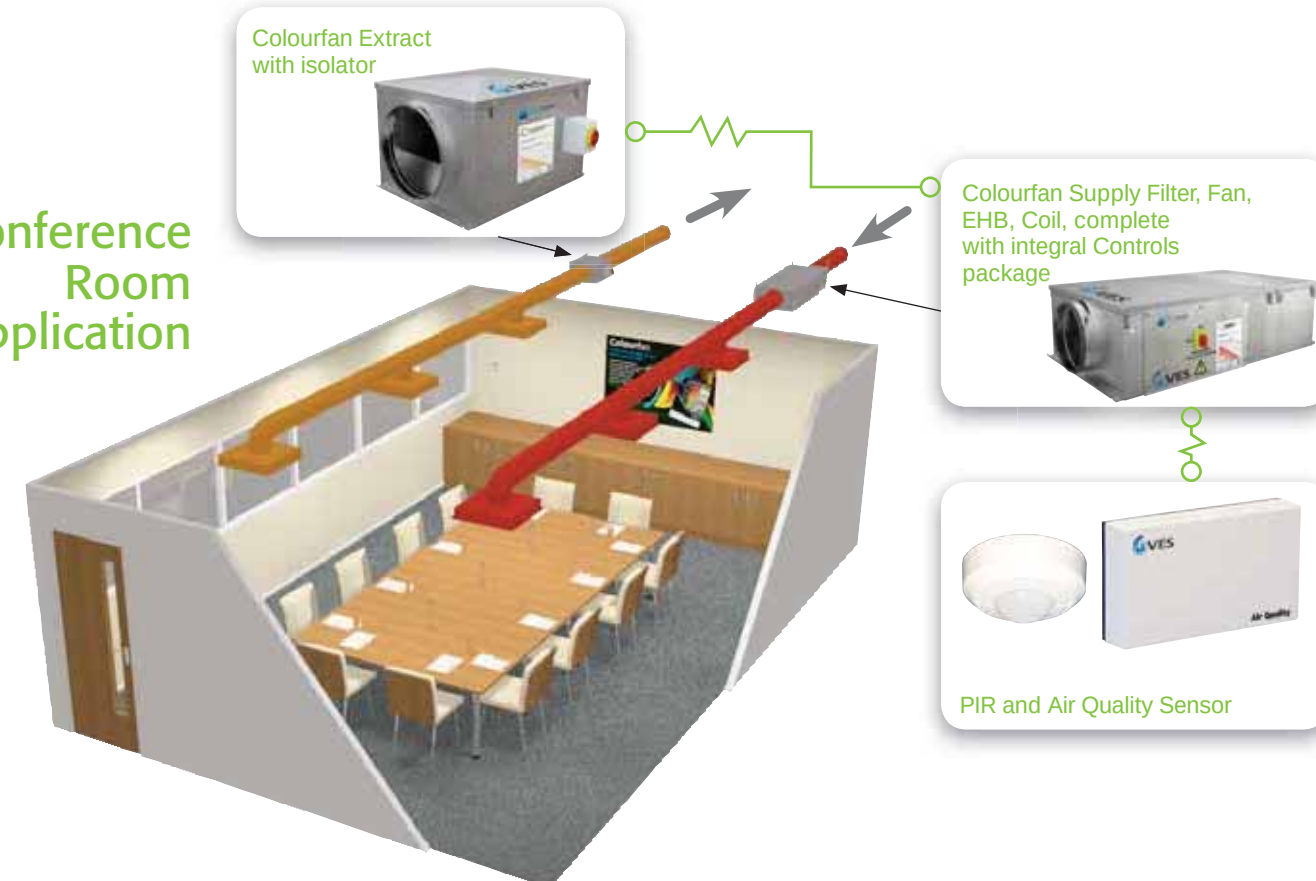
Supply, Extract or Twin Extract Working Together

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

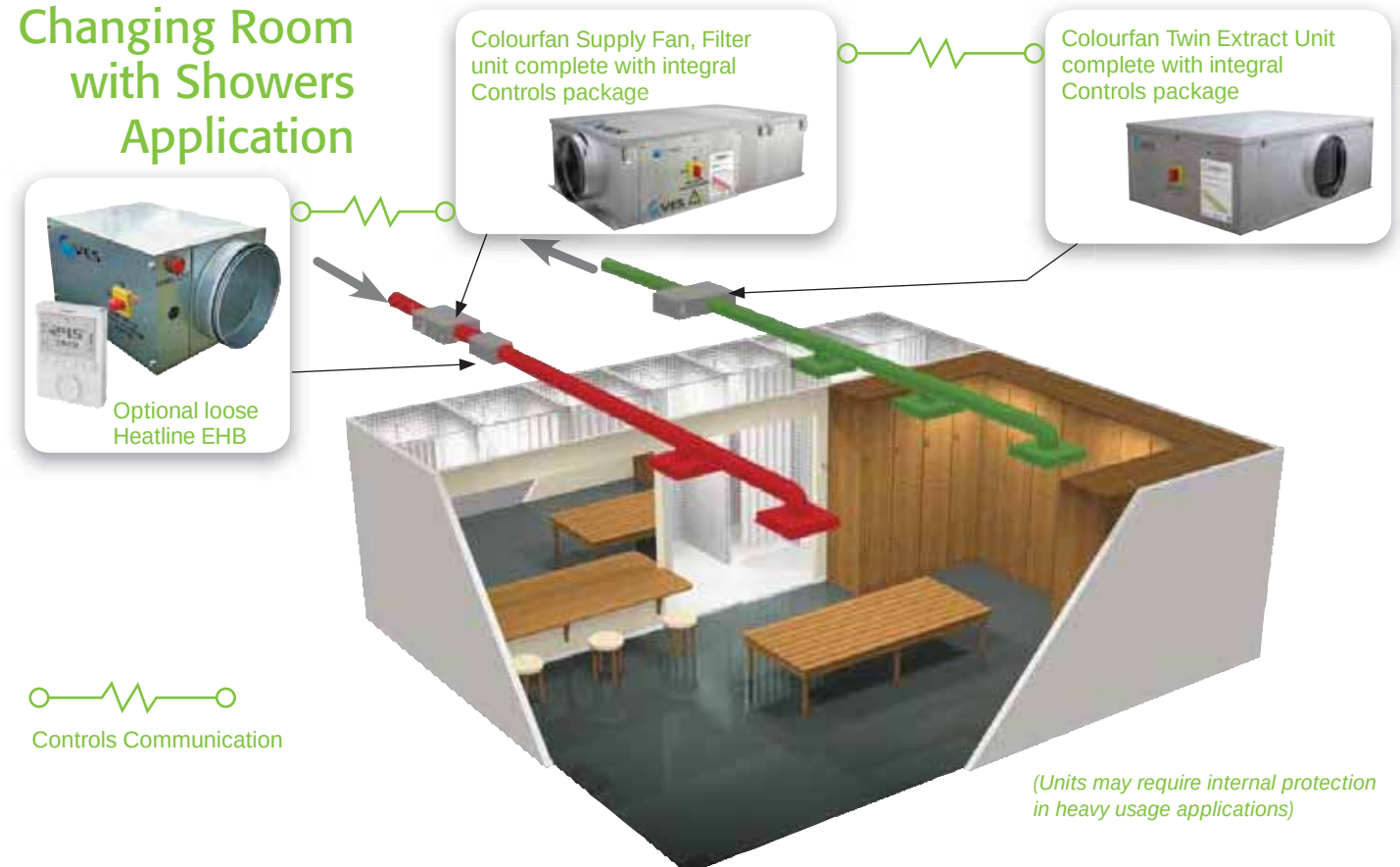
Small Office Application



Conference Room Application



Changing Room with Showers Application



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, Extract or Twin 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 unit with integral controls



Integral Speed Controller



Air Quality Sensor



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 units are the versatile solution for a wide range of applications.

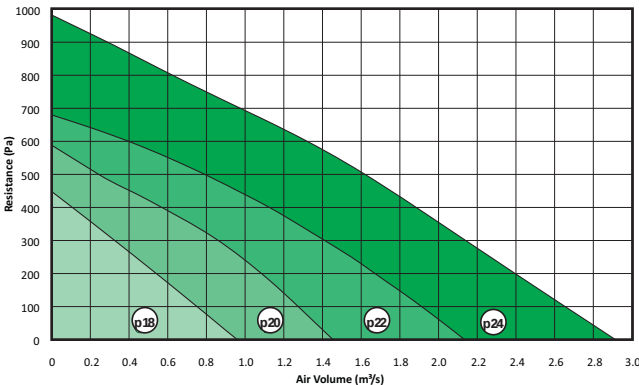
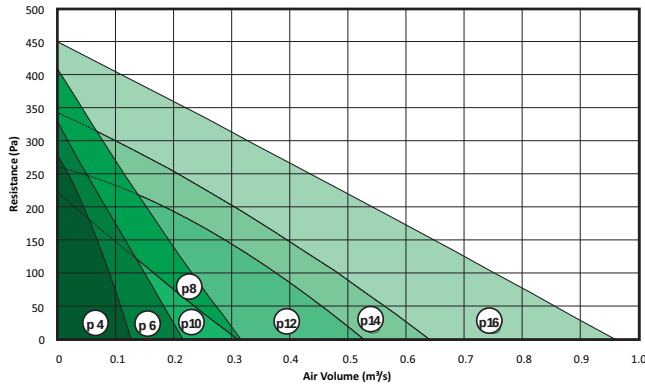
Selecting Colourfan units has been made easy, through our simple step by step process. We've done all of the hard work leaving you to specify and define your unit requirements.



Duties up to 2.5 m³/s



Colourfan® Twin Performance



1 Choose duties up to 2.5 m³/s

Colourfan® Twin
Duties up to 2.5 m³/s

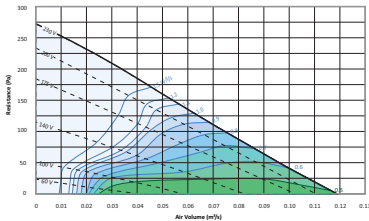
Energy efficient, ErP compliant fans, robust case construction, low profile units, suitable for ceiling voids, plantrooms and roofs. Can be configured for top or bottom access.



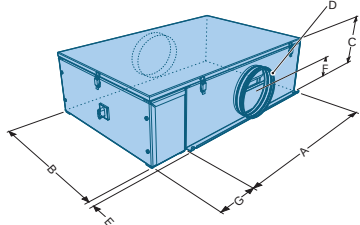
2 Specify your unit

- a Performance
- b Unit Configuration

2a. Performance Curve



2b. Unit Configuration



- c Controls
- d Noise Data and Silencer Option

2c. Controls

CLT0
Integral to AHU
CPD0-1/1P
Integral to AHU with fitted speed control
CPD0-1/1P/SCB
loose panel
CPD0-1/NB
loose panel with fitted speed control
CPD0-1/N/SCB

2d. Noise Data and Silencer Option

Fan Voltage	Sound Spectra dB re 10 ⁻¹² W/PWL Center Frequency (Hz)										Casing Noise Breakout																									
	63	125	250	500	1000	1500	2000	2500	3150	4000	5000	6300	8000	10000	12500	16000	20000	25000	31500	40000	50000	63000	80000	100000	125000	160000	200000	250000	315000	400000	500000	630000	800000	1000000		
230 VAC	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61
208 VAC	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61
175 VAC	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61
145 VAC	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61



Sound Spectra dB re 10 ⁻¹² W/PWL Center Frequency (Hz)	63	125	250	500	1000	1500	2000	2500	3150	4000	5000	6300	8000	10000	12500	16000	20000	25000	31500	40000	50000	63000	80000	100000	125000	160000	200000	250000	315000	400000	500000	630000	800000	1000000	
Casing Inside Line Loss	-2	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
Casing Outside Line Loss	-2	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1

Minimum Option	Sound Spectra dB re 10 ⁻¹² W/PWL Center Frequency (Hz)									
	63	125	250	500	1000	1500	2000	2500	3150	4000
Medium Loss	61	61	61	61	61	61	61	61	61	61
High Loss	61	61	61	61	61	61	61	61	61	61
Dimensions	A	B	C	D	E	F	G	H	I	J
Dimensions	620	1020	250	250	250	250	250	250	250	250

Silencer - CSA0090/1000



Note: The silencer will add a maximum of 7 dB to the measured sound level.

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

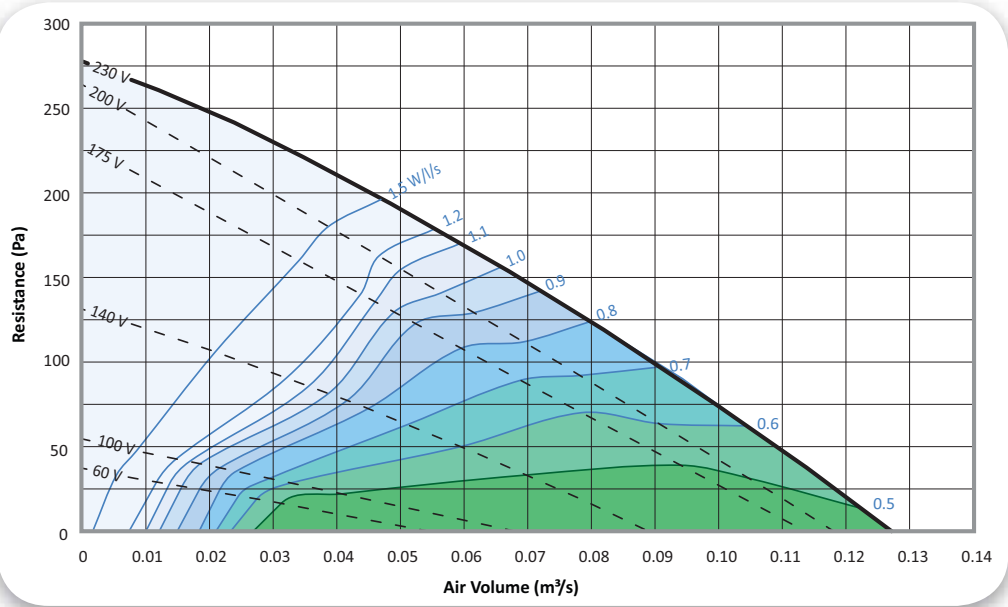
Unit Size 0 CLT031-1

2a Performance

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

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

Tolerances:
On flow rates: +/- 5%
On acoustic power and pressure: Levels: +/- 3 dB
By octave band: +/- 5 dB



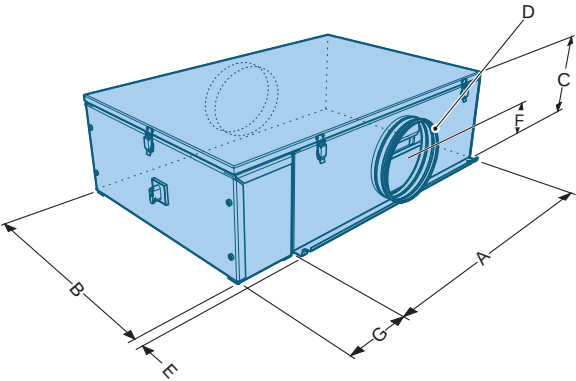
Size	Phase	Motor Size	Voltage	Fan Speed	Motor Full Load Current	Speed Control
CLT031-1	1 Phase	0.06 kW	230 VAC	2500 rpm	0.26 A	Electric Thyristor

2b Configuration

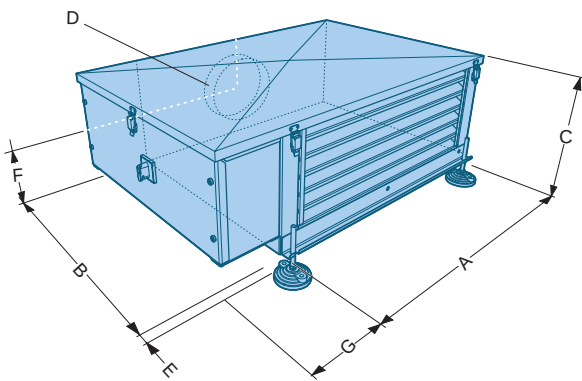
Configuration and Handling

CLT031-1 / PH WH/ LT RB/ LB RT

PH Plantroom



WH Weatherproof



Unit Type	Dimensions mm							Weight kg	Configuration Options			
	A	B	C	DØ	E	F	G		LT	LB	RT	RB
CLT0 Plantroom Twin	700	550	260	197	25	120	150	33	✓	✓	✓	✓
CLT0 Weatherproof Louvre Outlet Twin	700	550	320	197	25	166	150	35	✓	✓	✓	✓

2c Controls

Controls
CLT031-1 / PH / AL / I CP

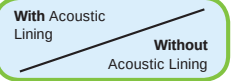
	Integral to AHU	Integral to AHU with fitted speed control	Loose panel	Loose panel with fitted speed control
CLT031-1	CPD0-1/P/B	CPD0-1/P/SC/B	CPD0-1/N/B	CPD0-1/N/SC/B

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

2d Noise Data and Silencer Option

Fan Voltage	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
230 VAC	61	61	60	58	57	57	56	50	31 / 37	23 / 28	35 / 39	27 / 31
200 VAC	60	61	57	56	55	55	54	45	28 / 33	20 / 25	34 / 37	26 / 29
175 VAC	61	59	54	54	53	53	52	40	25 / 30	16 / 22	32 / 35	24 / 27
140 VAC	56	57	50	49	48	49	47	30	23 / 26	14 / 17	29 / 31	21 / 23

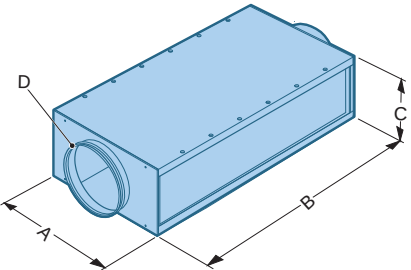
Centre Frequency	63	125	250	500	1k	2k	4k	8k
Case Insertion Loss (With Acoustic Lining)	+6	-2	-6	-17	-27	-31	-32	-25
Case Insertion Loss (Without Acoustic Lining)	+7	-1	-1	-11	-19	-23	-23	-19



Silencer Option	Sound Spectrum dB re 10 ⁻¹² W PWL Centre Frequency (Hz)							
	63	125	250	500	1k	2k	4k	8k
CLVA000/1000	63	125	250	500	1k	2k	4k	8k
Induct Loss	-4	-5	-6	-14	-24	-27	-24	-18
CLVA000/1000	A	B	C	DØ	Weight kg			
Dimensions mm	450	1000	235	197	15			

Note: The silencer will add a maximum of 7 Pa to the external resistance.

Silencer - CLVA000/1000



Available on
vesdirect.co.uk



SIZE 0 - CLT031-1

Selection Data

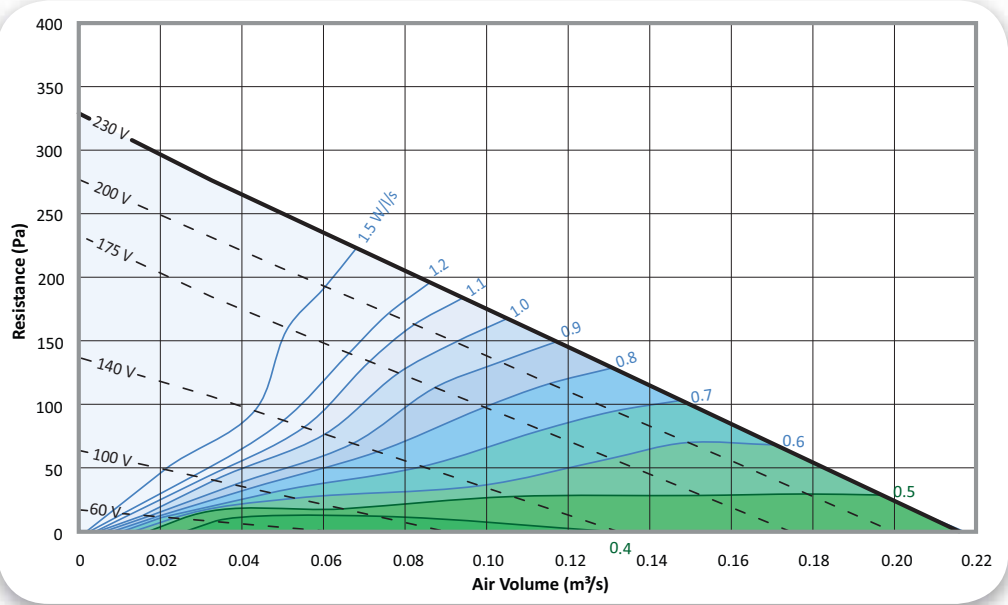
Unit Size 1 CLT132-1

2a Performance

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

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

Tolerances:
On flow rates: +/- 5%
On acoustic power and pressure: Levels: +/- 3 dB
By octave band: +/- 5 dB



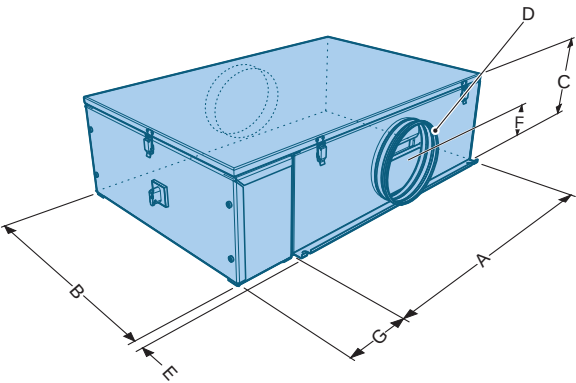
Size	Phase	Motor Size	Voltage	Fan Speed	Motor Full Load Current	Speed Control
CLT132-1	1 Phase	0.1 kW	230 VAC	2560 rpm	0.45 A	Electric Thyristor

2b Configuration

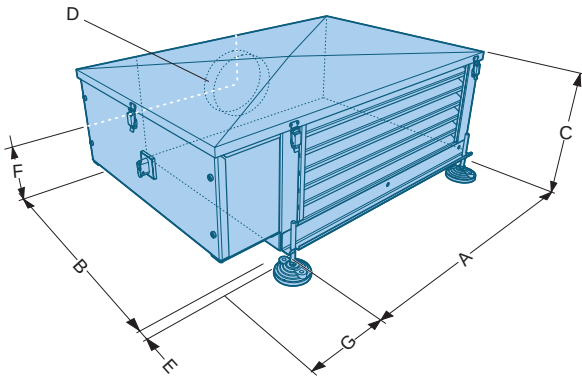
Configuration and Handling

CLT132-1 / PH WH/ LT RB/ LB RT

PH Plantroom



WH Weatherproof



Unit Type	Dimensions mm							Weight kg	Configuration Options			
	A	B	C	DØ	E	F	G		LT	LB	RT	RB
CLT1 Plantroom Twin	700	650	320	247	25	149	150	35	✓	✓	✓	✓
CLT1 Weatherproof Louvre Outlet Twin	700	650	380	247	25	196	150	36	✓	✓	✓	✓

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

2c Controls

Controls
CLT132-1 / PH / AL / I
CP

	Integral to AHU	Integral to AHU with fitted speed control	Loose panel	Loose panel with fitted speed control
CLT132-1	CPD3-1/P/B	CPD3-1/P/SC/B	CPD3-1/N/B	CPD3-1/N/SC/B

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

2d Noise Data and Silencer Option

Fan Voltage	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
230 VAC	64	62	60	58	57	55	52	48	31 37	23 28	36 40	28 32
200 VAC	73	68	61	59	55	54	51	45	39 40	29 30	42 44	34 36
175 VAC	65	70	64	60	56	53	49	42	38 41	29 32	41 44	33 36
140 VAC	66	73	63	58	53	51	45	35	41 43	32 34	43 45	35 37

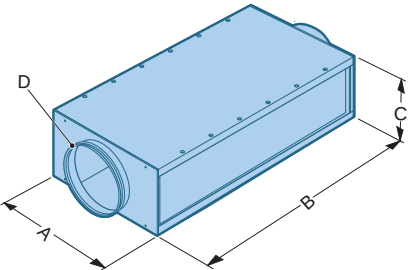
Centre Frequency	63	125	250	500	1k	2k	4k	8k
Case Insertion Loss (With Acoustic Lining)	+6	-2	-6	-17	-27	-31	-32	-25
Case Insertion Loss (Without Acoustic Lining)	+7	-1	-1	-11	-19	-23	-23	-19

With Acoustic Lining
Without Acoustic Lining

Silencer Option	Sound Spectrum dB re 10 ⁻¹² W PWL Centre Frequency (Hz)							
	63	125	250	500	1k	2k	4k	8k
CLVA100/1000	63	125	250	500	1k	2k	4k	8k
Induct Loss	-4	-5	-6	-14	-24	-27	-24	-18
CLVA100/1000	A	B	C	DØ	Weight kg			
Dimensions mm	450	1000	245	197	16			

Note: The silencer will add a maximum of 23 Pa to the external resistance.

Silencer - CLVA100/1000



Available on
vesdirect.co.uk



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

Selection Data

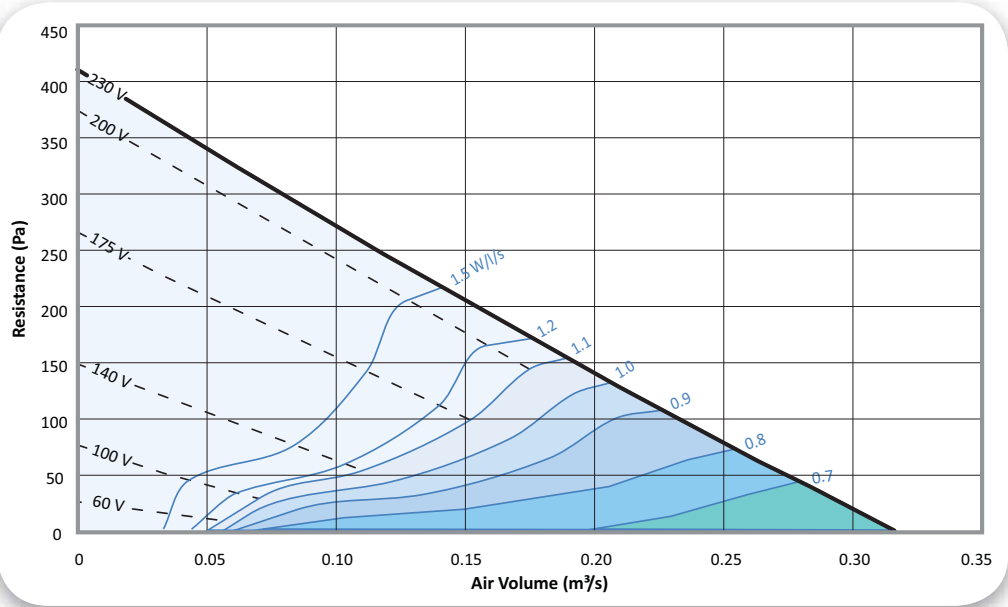
Unit Size 2 CLT233-1

2a Performance

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

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

Tolerances:
On flow rates: +/- 5%
On acoustic power and pressure: Levels: +/- 3 dB
By octave band: +/- 5 dB



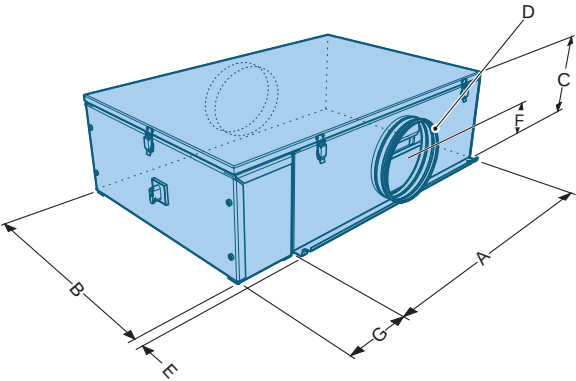
Size	Phase	Motor Size	Voltage	Fan Speed	Motor Full Load Current	Speed Control
CLT233-1	1 Phase	0.24 kW	230 VAC	2730 rpm	1.05 A	Electric Thyristor

2b Configuration

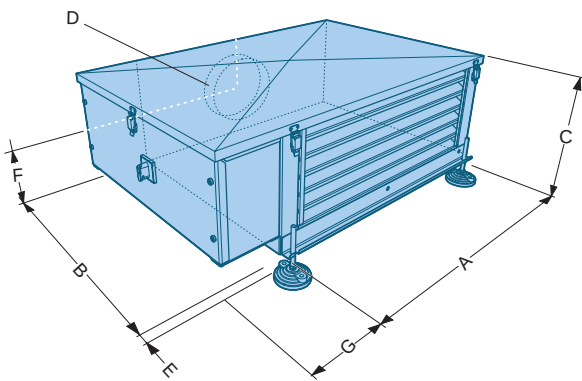
Configuration and Handling

CLT233-1 / PH WH/ LT RB/ LB RT

PH Plantroom



WH Weatherproof



Unit Type	Dimensions mm							Weight kg	Configuration Options			
	A	B	C	DØ	E	F	G		LT	LB	RT	RB
CLT2 Plantroom Twin	900	700	395	312	25	186	150	50	✓	✓	✓	✓
CLT2 Weatherproof Louvre Outlet Twin	900	700	455	312	25	234	150	52	✓	✓	✓	✓

2c Controls

Controls
CLT233-1 / PH / AL / I
CP

	Integral to AHU	Integral to AHU with fitted speed control	Loose panel	Loose panel with fitted speed control
CLT233-1	CPD4-1/P/B	CPD4-1/P/SC/B	CPD4-1/N/B	CPD4-1/N/SC/B

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

2d Noise Data and Silencer Option

Fan Voltage	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
230 VAC	66	73	65	64	63	57	56	61	41/43	32/34	43/46	36/38
200 VAC	65	74	62	62	61	56	55	55	43/44	34/35	44/46	36/38
175 VAC	62	73	59	57	56	50	52	41	41/43	32/34	42/44	34/36
140 VAC	68	72	61	56	53	46	42	32	40/41	31/32	42/44	34/36

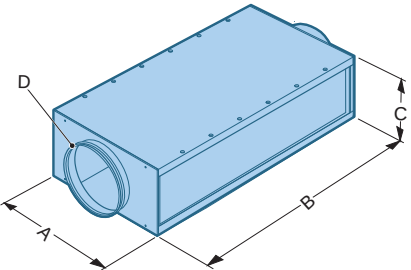
Centre Frequency	63	125	250	500	1k	2k	4k	8k
Case Insertion Loss (With Acoustic Lining)	+6	-2	-6	-17	-27	-31	-32	-25
Case Insertion Loss (Without Acoustic Lining)	+7	-1	-1	-11	-19	-23	-23	-19



Silencer Option	Sound Spectrum dB re 10 ⁻¹² W PWL Centre Frequency (Hz)							
	63	125	250	500	1k	2k	4k	8k
CLVA200/1200	63	125	250	500	1k	2k	4k	8k
Induct Loss	-5	-7	-10	-18	-26	-28	-23	-20
CLVA200/1200	A	B	C	DØ	Weight kg			
Dimensions mm	550	1200	295	247	27			

Note: The silencer will add a maximum of 16 Pa to the external resistance.

Silencer - CLVA200/1200



Available on
vesdirect.co.uk



SIZE 2 - CLT233-1

Selection Data

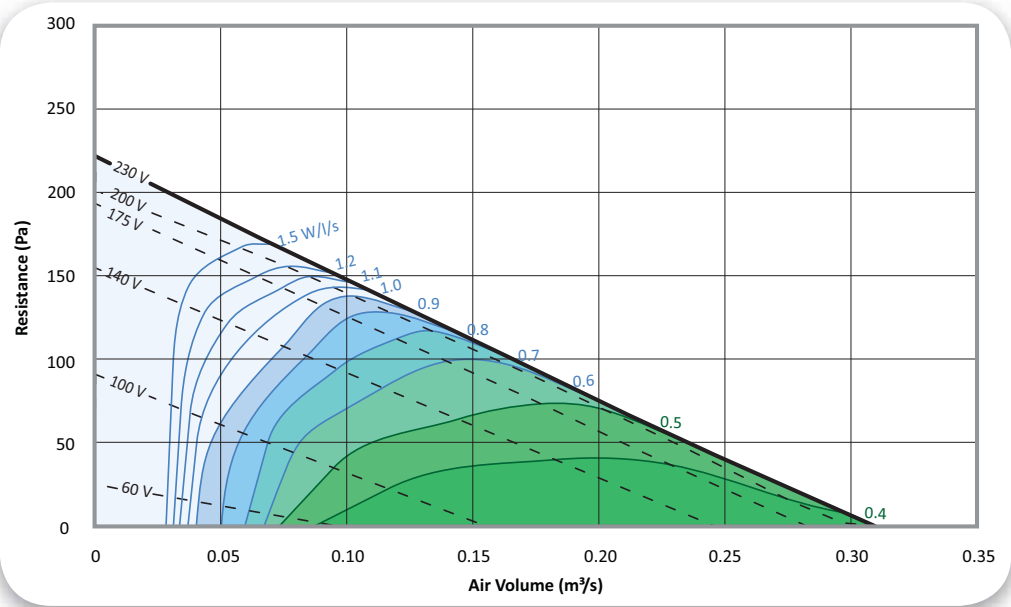
Unit Size 3 CLT334-1

2a Performance

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

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

Tolerances:
On flow rates: +/- 5%
On acoustic power and pressure: Levels: +/- 3 dB
By octave band: +/- 5 dB



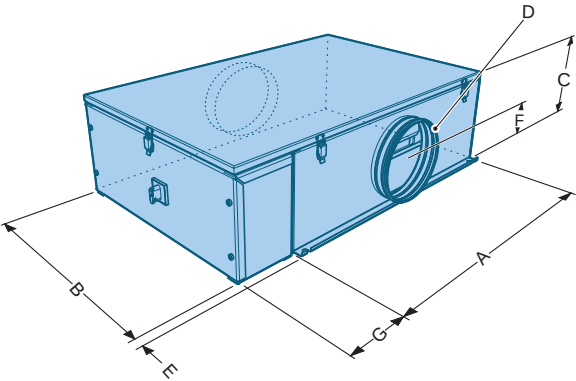
Size	Phase	Motor Size	Voltage	Fan Speed	Motor Full Load Current	Speed Control
CLT334-1	1 Phase	0.11 kW	230 VAC	1360 rpm	0.53 A	Electric Thyristor

2b Configuration

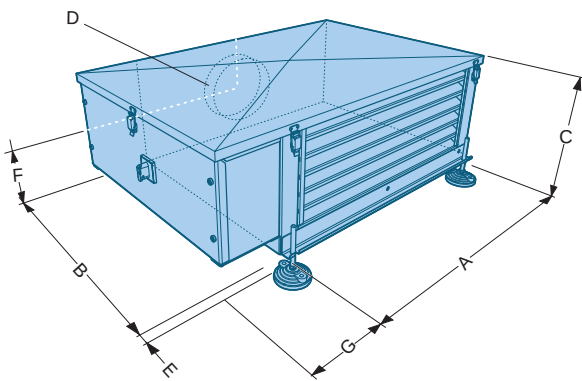
Configuration and Handling

CLT334-1 / PH WH/ LT RB/ LB RT

PH Plantroom



WH Weatherproof



Unit Type	Dimensions mm							Weight kg	Configuration Options			
	A	B	C	DØ	E	F	G		LT	LB	RT	RB
CLT3 Plantroom Twin	1000	800	420	312	25	200	150	57	✓	✓	✓	✓
CLT3 Weatherproof Louvre Outlet Twin	1000	800	480	312	25	248	150	60	✓	✓	✓	✓

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

2c Controls

Controls
CLT334-1 / PH / AL / I
CP

	Integral to AHU	Integral to AHU with fitted speed control	Loose panel	Loose panel with fitted speed control
CLT334-1	CPD3-1/P/B	CPD3-1/P/SC/B	CPD3-1/N/B	CPD3-1/N/SC/B

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

2d Noise Data and Silencer Option

Fan Voltage	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
230 VAC	62	64	61	58	55	45	55	33	32 38	24 29	37 40	29 32
200 VAC	59	65	60	56	52	47	54	36	32 37	23 28	36 40	28 32
175 VAC	58	67	57	56	50	46	54	33	35 36	25 27	37 39	29 31
140 VAC	58	65	54	60	54	43	53	27	32 33	23 24	35 38	27 30

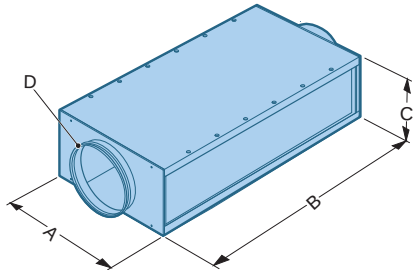
Centre Frequency	63	125	250	500	1k	2k	4k	8k
Case Insertion Loss (With Acoustic Lining)	+6	-2	-6	-17	-27	-31	-32	-25
Case Insertion Loss (Without Acoustic Lining)	+7	-1	-1	-11	-19	-23	-23	-19

With Acoustic Lining
Without Acoustic Lining

Silencer Option	Sound Spectrum dB re 10 ⁻¹² W PWL Centre Frequency (Hz)							
	63	125	250	500	1k	2k	4k	8k
CLVA300/1200	63	125	250	500	1k	2k	4k	8k
Induct Loss	-6	-8	-12	-19	-28	-30	-24	-21
CLVA300/1200	A	B	C	DØ	Weight kg			
Dimensions mm	600	1200	395	312	38			

Note: The silencer will add a maximum of 9 Pa to the external resistance.

Silencer - CLVA300/1200



Available on
vesdirect.co.uk



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

Selection Data

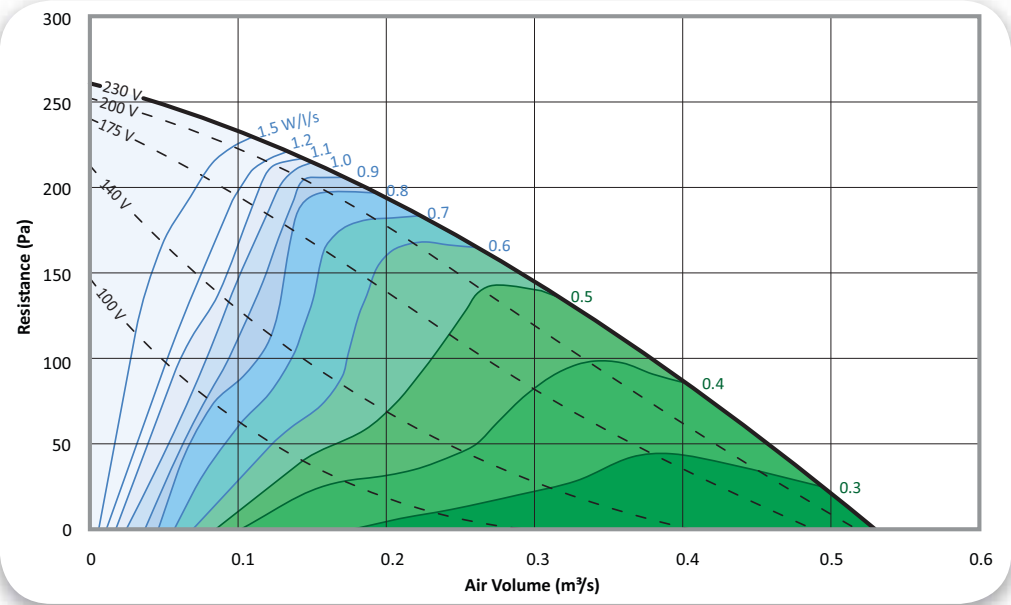
Unit Size 4 CLT435-1

2a Performance

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

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

Tolerances:
On flow rates: +/- 5%
On acoustic power and pressure: Levels: +/- 3 dB
By octave band: +/- 5 dB



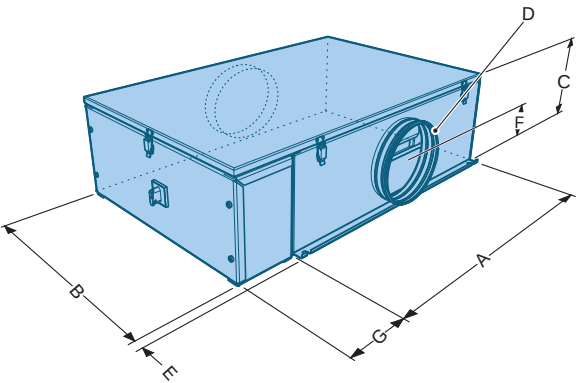
Size	Phase	Motor Size	Voltage	Fan Speed	Motor Full Load Current	Speed Control
CLT435-1	1 Phase	0.15 kW	230 VAC	1310 rpm	0.66 A	Electric Thyristor

2b Configuration

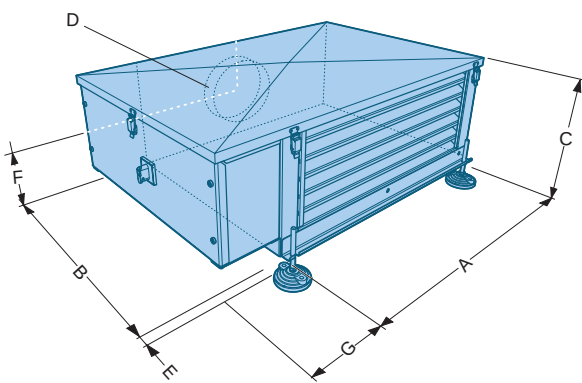
Configuration and Handling

CLT435-1 / PH WH/ LT RB/ LB RT

PH Plantroom



WH Weatherproof



Unit Type	Dimensions mm							Weight kg	Configuration Options			
	A	B	C	DØ	E	F	G		LT	LB	RT	RB
CLT4 Plantroom Twin	1200	900	520	397	25	252	150	78	✓	✓	✓	✓
CLT4 Weatherproof Louvre Outlet Twin	1200	900	580	397	25	298	150	82	✓	✓	✓	✓

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

2c Controls

Controls
CLT435-1 / PH / AL / I CP

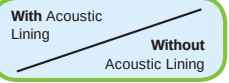
	Integral to AHU	Integral to AHU with fitted speed control	Loose panel	Loose panel with fitted speed control
CLT435-1	CPD3-1/P/B	CPD3-1/P/SC/B	CPD3-1/N/B	CPD3-1/N/SC/B

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

2d Noise Data and Silencer Option

Fan Voltage	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
230 VAC	59	68	60	58	55	45	50	48	34 36	26 28	37 40	30 33
200 VAC	61	64	58	56	56	44	52	43	30 33	21 26	34 37	27 30
175 VAC	55	66	51	61	54	40	46	26	32 33	24 25	35 37	27 30
140 VAC	55	69	52	55	42	40	39	24	36 37	27 28	37 38	30 31

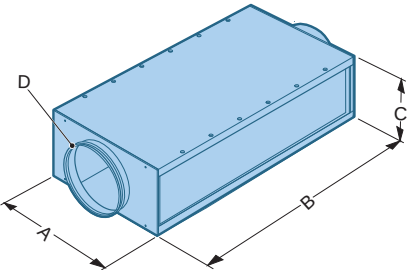
Centre Frequency	63	125	250	500	1k	2k	4k	8k
Case Insertion Loss (With Acoustic Lining)	+6	-2	-6	-17	-27	-31	-32	-25
Case Insertion Loss (Without Acoustic Lining)	+7	-1	-1	-11	-19	-23	-23	-19



Silencer Option	Sound Spectrum dB re 10 ⁻¹² W PWL Centre Frequency (Hz)							
	63	125	250	500	1k	2k	4k	8k
CLVA400/1200	63	125	250	500	1k	2k	4k	8k
Induct Loss	-5	-9	-16	-30	-40	-40	-32	-26
CLVA400/1200	A	B	C	DØ	Weight kg			
Dimensions mm	700	1200	495	397	43			

Note: The silencer will add a maximum of 13 Pa to the external resistance.

Silencer - CLVA400/1200



Available on
vesdirect.co.uk



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

Selection Data

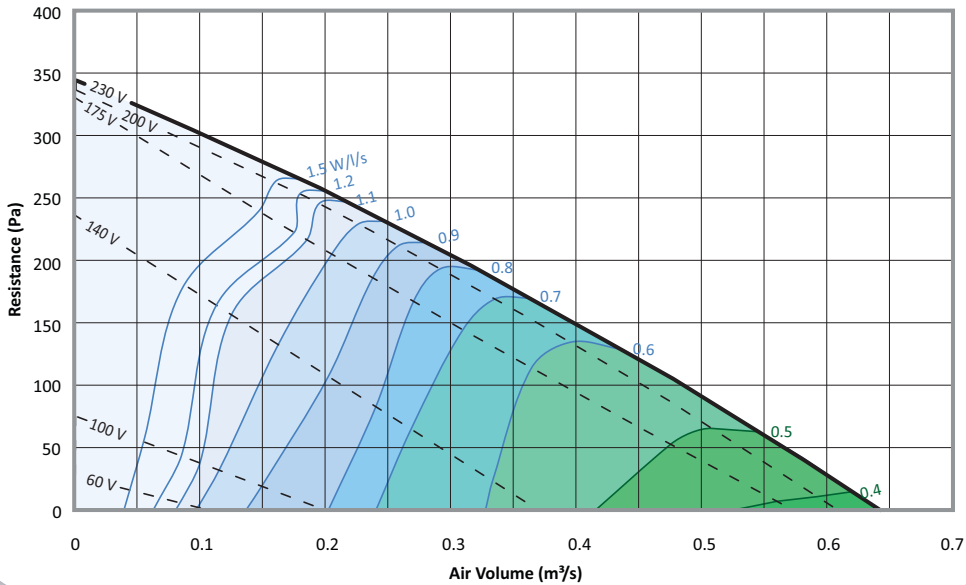
Unit Size 5 CLT536-1

2a Performance

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

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

Tolerances:
On flow rates: +/- 5%
On acoustic power and pressure: Levels: +/- 3 dB
By octave band: +/- 5 dB



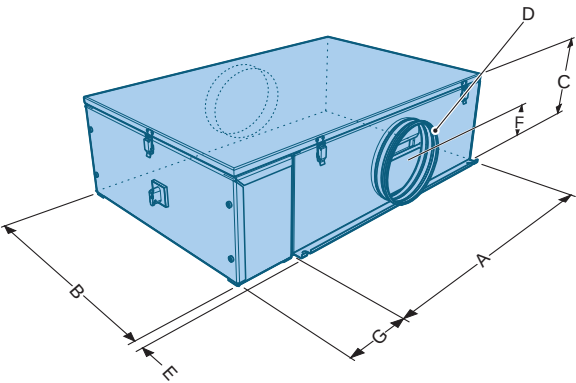
Size	Phase	Motor Size	Voltage	Fan Speed	Motor Full Load Current	Speed Control
CLT536-1	1 Phase	0.27 kW	230 VAC	1390 rpm	1.3 A	Electric Thyristor

2b Configuration

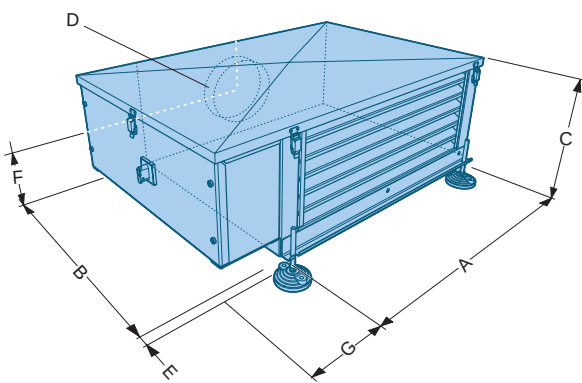
Configuration and Handling

CLT536-1 / PH WH/ LT RB/ LB RT

PH Plantroom



WH Weatherproof



Unit Type	Dimensions mm							Weight kg	Configuration Options			
	A	B	C	DØ	E	F	G		LT	LB	RT	RB
CLT5 Plantroom Twin	1200	1000	570	397	25	264	150	96	✓	✓	✓	✓
CLT5 Weatherproof Louvre Outlet Twin	1200	1000	625	397	25	316	150	101	✓	✓	✓	✓

2c Controls

Controls
CLT536-1 / PH / AL / I
CP

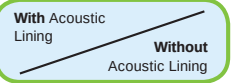
	Integral to AHU	Integral to AHU with fitted speed control	Loose panel	Loose panel with fitted speed control
CLT536-1	CPD6-1/P/B	CPD6-1/P/SC/B	CPD6-1/N/B	CPD6-1/N/SC/B

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

2d Noise Data and Silencer Option

Fan Voltage	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
230 VAC	65	66	61	59	53	51	53	51	32 36	24 29	37 40	30 33
200 VAC	64	64	59	59	52	50	53	48	30 34	21 27	35 38	28 31
175 VAC	65	64	58	57	50	48	54	42	30 33	21 25	35 38	28 31
140 VAC	58	58	55	51	44	43	49	27	25 30	17 22	30 33	23 36

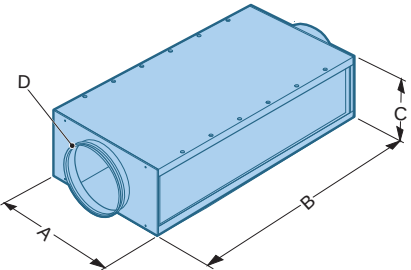
Centre Frequency	63	125	250	500	1k	2k	4k	8k
Case Insertion Loss (With Acoustic Lining)	+6	-2	-6	-17	-27	-31	-32	-25
Case Insertion Loss (Without Acoustic Lining)	+7	-1	-1	-11	-19	-23	-23	-19



Silencer Option	Sound Spectrum dB re 10 ⁻¹² W PWL Centre Frequency (Hz)							
	63	125	250	500	1k	2k	4k	8k
CLVA500/1200	63	125	250	500	1k	2k	4k	8k
Induct Loss	-4	-6	-12	-25	-32	-32	-23	-15
CLVA500/1200	A	B	C	DØ	Weight kg			
Dimensions mm	700	1200	545	397	44			

Note: The silencer will add a maximum of 14 Pa to the external resistance.

Silencer - CLVA500/1200



Available on
vesdirect.co.uk



SIZE 5 - CLT536-1

Selection Data

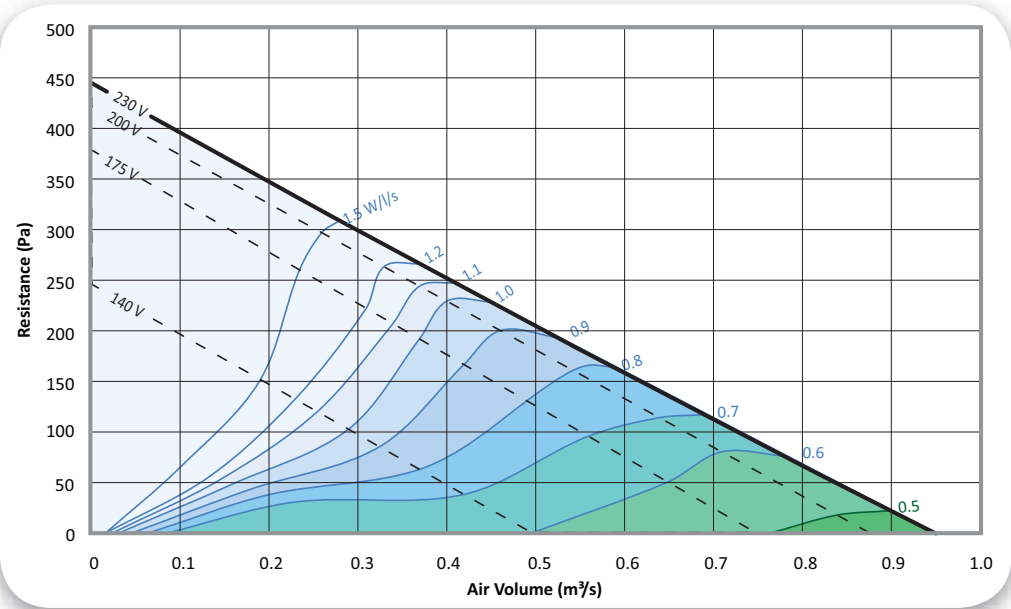
Unit Size 6-1 CLT637-1

2a Performance

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

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

Tolerances:
On flow rates: +/- 5%
On acoustic power and pressure: Levels: +/- 3 dB
By octave band: +/- 5 dB



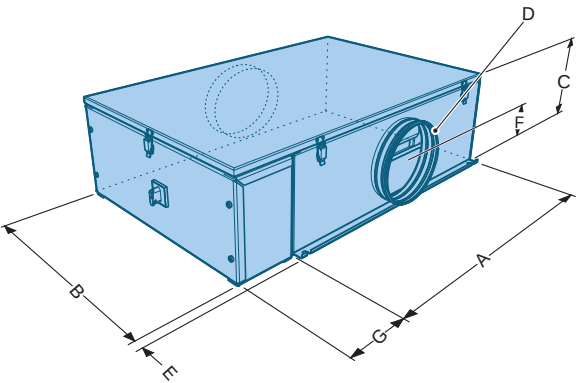
Size	Phase	Motor Size	Voltage	Fan Speed	Motor Full Load Current	Speed Control
CLT637-1	1 Phase	0.50 kW	230 VAC	1370 rpm	2.4 A	Electric Thyristor

2b Configuration

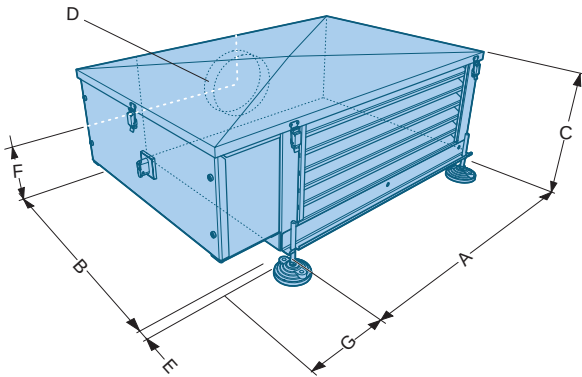
Configuration and Handling

CLT637-1 / PH WH/ LT RB/ LB RT

PH Plantroom



WH Weatherproof



Unit Type	Dimensions mm							Weight kg	Configuration Options			
	A	B	C	DØ	E	F	G		LT	LB	RT	RB
CLT6 Plantroom Twin	1500	1100	590	447	25	290	150	124	✓	✓	✓	✓
CLT6 Weatherproof Louvre Outlet Twin	1500	1100	650	447	25	338	150	130	✓	✓	✓	✓

2c Controls

Controls
CLT637-1 / PH / AL / I
CP

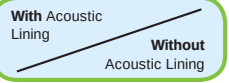
	Integral to AHU	Integral to AHU with fitted speed control	Loose panel	Loose panel with fitted speed control
CLT637-1	CPD7-1/P/B	CPD7-1/P/SC/B	CPD7-1/N/B	CPD7-1/N/SC/B

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

2d Noise Data and Silencer Option

Fan Voltage	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
230 VAC	62	67	67	61	54	51	46	53	37 / 43	30 / 35	39 / 44	33 / 37
200 VAC	62	66	64	60	53	50	45	51	34 / 39	26 / 32	37 / 41	30 / 34
175 VAC	60	65	59	57	51	48	44	50	30 / 34	22 / 26	35 / 38	28 / 31
140 VAC	60	63	55	51	46	45	43	44	28 / 30	20 / 22	32 / 35	25 / 28

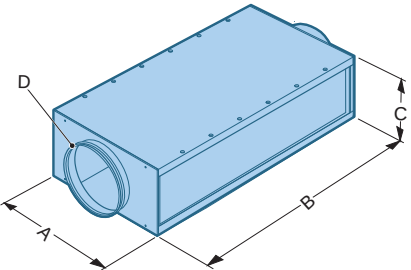
Centre Frequency	63	125	250	500	1k	2k	4k	8k
Case Insertion Loss (With Acoustic Lining)	+6	-2	-6	-17	-27	-31	-32	-25
Case Insertion Loss (Without Acoustic Lining)	+7	-1	-1	-11	-19	-23	-23	-19



Silencer Option	Sound Spectrum dB re 10 ⁻¹² W PWL Centre Frequency (Hz)							
	63	125	250	500	1k	2k	4k	8k
CLVA600/1200	63	125	250	500	1k	2k	4k	8k
Induct Loss	-4	-6	-12	-25	-32	-32	-26	-20
CLVA600/1200	A	B	C	DØ	Weight kg			
Dimensions mm	850	1200	570	447	54			

Note: The silencer will add a maximum of 20 Pa to the external resistance.

Silencer - CLVA600/1200



Available on
vesdirect.co.uk



SIZE 6-1 - CLT637-1

Selection Data

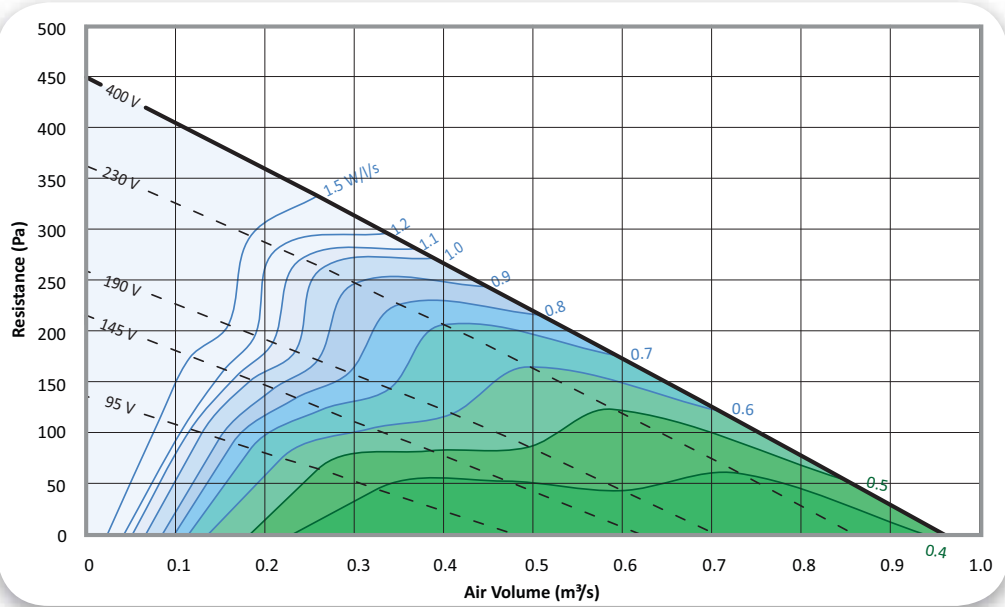
Unit Size 6-3 CLT637-3

2a Performance

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

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

Tolerances:
On flow rates: +/- 5%
On acoustic power and pressure: Levels: +/- 3 dB
By octave band: +/- 5 dB



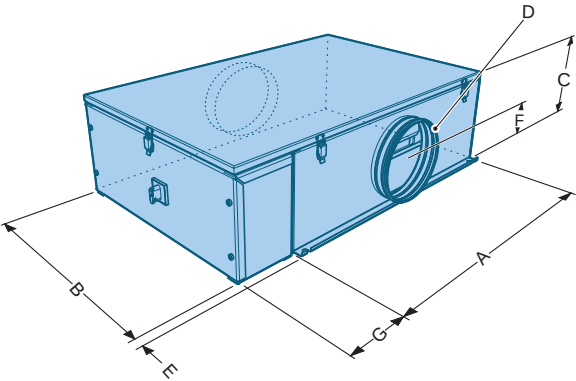
Size	Phase	Motor Size	Voltage	Fan Speed	Motor Full Load Current	Speed Control
CLT637-3	3 Phase	0.44 kW	400 VAC	1340 rpm	0.8 A	Electric Thyristor

2b Configuration

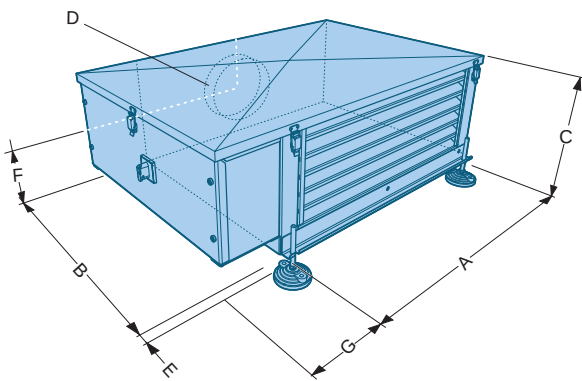
Configuration and Handling

CLT637-3 / PH WH/ LT RB/ LB RT

PH Plantroom



WH Weatherproof



Unit Type	Dimensions mm							Weight kg	Configuration Options			
	A	B	C	DØ	E	F	G		LT	LB	RT	RB
CLT6 Plantroom Twin	1500	1100	590	447	25	290	150	124	✓	✓	✓	✓
CLT6 Weatherproof Louvre Outlet Twin	1500	1100	650	447	25	338	150	130	✓	✓	✓	✓

2c Controls

Controls
CLT637-3 / PH / AL / I CP

	Integral to AHU	Integral to AHU with fitted speed control	Loose panel	Loose panel with fitted speed control
CLT637-3	CPD4-3/P/B	CPD4-3/P/SC/B	CPD4-3/N/B	CPD4-3/N/SC/B

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

2d Noise Data and Silencer Option

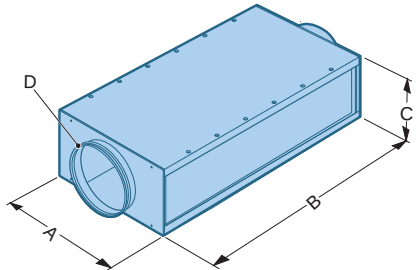
Fan Voltage	Sound Spectrum dB re 10 ⁻¹² W PWL Centre Frequency (Hz)								Casing Noise Breakout			
	63	125	250	500	1k	2k	4k	8k	NR @ 1m	NR @ 3m	dBA @ 1m	dBA @ 3m
400 VAC	62	68	62	62	56	52	47	52	34 37	26 30	38 41	31 34
300 VAC	63	60	64	60	62	52	49	46	30 35	22 27	35 39	28 32
240 VAC	57	63	57	58	49	47	50	39	28 32	20 24	33 36	26 29
190 VAC	60	53	54	52	44	45	49	28	23 29	16 21	29 32	22 25
145 VAC	54	48	56	43	40	39	38	21	25 31	18 23	27 32	20 25

Centre Frequency	63	125	250	500	1k	2k	4k	8k
Case Insertion Loss (With Acoustic Lining)	+6	-2	-6	-17	-27	-31	-32	-25
Case Insertion Loss (Without Acoustic Lining)	+7	-1	-1	-11	-19	-23	-23	-19

Silencer Option	Sound Spectrum dB re 10 ⁻¹² W PWL Centre Frequency (Hz)							
	63	125	250	500	1k	2k	4k	8k
CLVA600/1200	63	125	250	500	1k	2k	4k	8k
Induct Loss	-4	-6	-12	-25	-32	-32	-26	-20
CLVA600/1200	A	B	C	DØ	Weight kg			
Dimensions mm	850	1200	570	447	54			

Note: The silencer will add a maximum of 20 Pa to the external resistance.

Silencer - CLVA600/1200



Available on
vesdirect.co.uk



SIZE 6-3 - CLT637-3

Selection Data

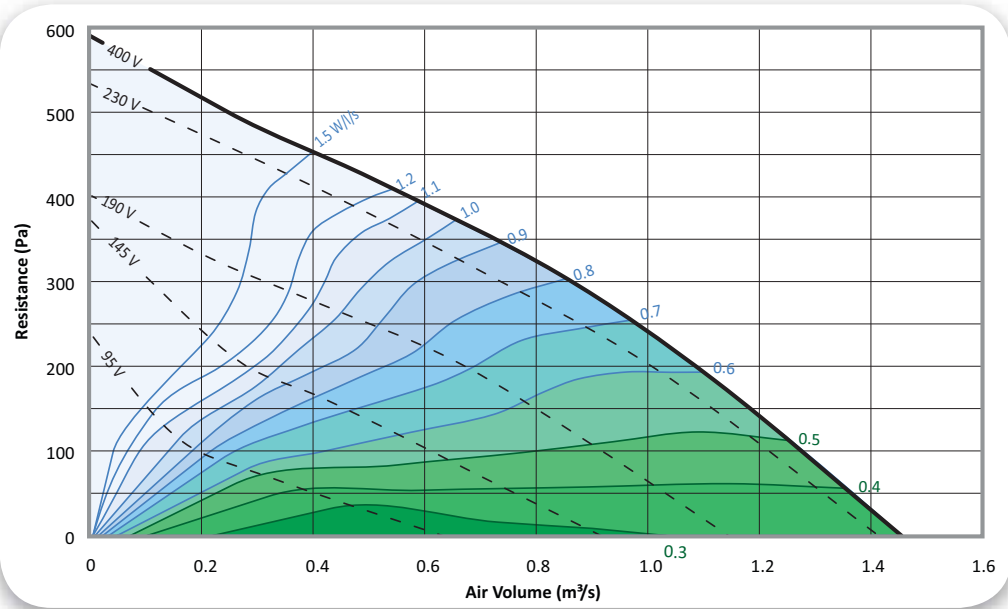
Unit Size 7 CLT738-3

2a Performance

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

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

Tolerances:
On flow rates: +/- 5%
On acoustic power and pressure: Levels: +/- 3 dB
By octave band: +/- 5 dB



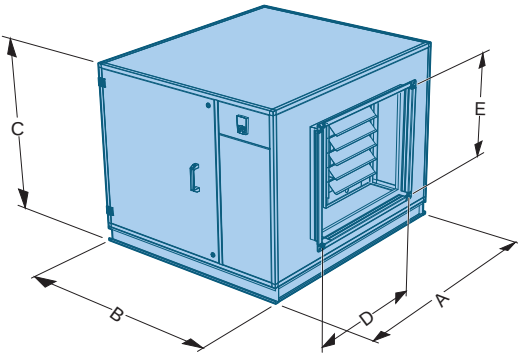
Size	Phase	Motor Size	Voltage	Fan Speed	Motor Full Load Current	Speed Control
CLT738-3	3 Phase	0.77 kW	400 VAC	1350 rpm	1.6 A	Electric Thyristor

2b Configuration

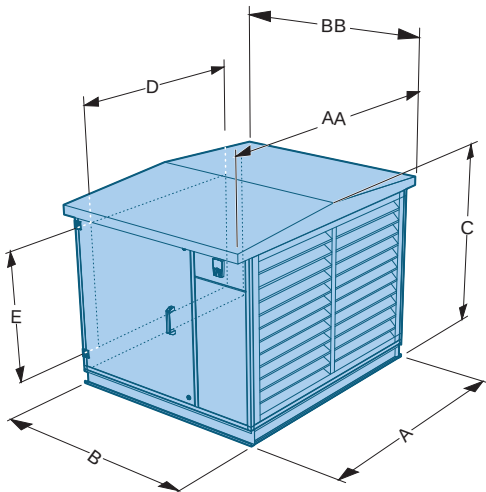
Configuration and Handling

CLT738-3 / PH WH/ L R/

PH Plantroom



WH Weatherproof



Unit Type	Dimensions mm							Weight kg	Configuration Options	
	A	AA	B	BB	C	D	E		L	R
CLT7 Plantroom Twin	1225		1200		1025	750	500	200	✓	✓
CLT7 Weatherproof Louvre Outlet Twin	1225	1375	1200	1300	1100	750	500	222	✓	✓

Controls

CLT738-3 / PH / DS / I CPSC CP

2c Controls

	Integral to AHU	Integral to AHU with fitted speed control	Loose panel	Loose panel with fitted speed control
CLT738-3	CPD5-3/P/B	CPD5-3/P/SC/B	CPD5-3/N/B	CPD5-3/N/SC/B

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

2d Noise Data and Silencer Option

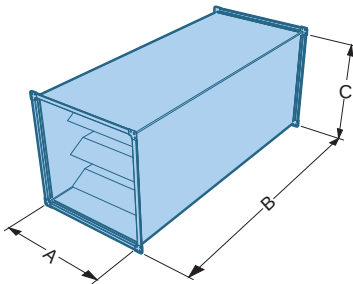
Fan Voltage	Sound Spectrum dB re 10 ⁻¹² W PWL Centre Frequency (Hz)								Casing Noise Breakout			
	63	125	250	500	1k	2k	4k	8k	NR @ 1m	NR @ 3m	dBA @ 1m	dBA @ 3m
400 VAC	62	68	62	62	46	42	47	52	34	27	37	31
300 VAC	60	64	60	62	52	49	46	49	32	25	35	28
240 VAC	57	63	57	58	49	47	50	39	29	22	32	26
190 VAC	60	53	54	52	44	45	49	28	26	19	29	22
145 VAC	54	48	56	43	40	39	38	21	28	21	29	23

Centre Frequency	63	125	250	500	1k	2k	4k	8k
Case Insertion Loss	-1	-4	-3	-18	-27	-26	-24	-20

Silencer Option	Sound Spectrum dB re 10 ⁻¹² W PWL Centre Frequency (Hz)							
	63	125	250	500	1k	2k	4k	8k
CLVA700/1200	63	125	250	500	1k	2k	4k	8k
Induct Loss	-5	-9	-16	-30	-39	-39	-31	-26
CLVA700/1200	A		B		C		Weight kg	
Dimensions mm	750		1200		500		40	

Note: The silencer will add a maximum of 80 Pa to the external resistance.

Silencer - CLVA700/1200



Available on
vesdirect.co.uk



SIZE 7 - CLT738-3

Selection Data

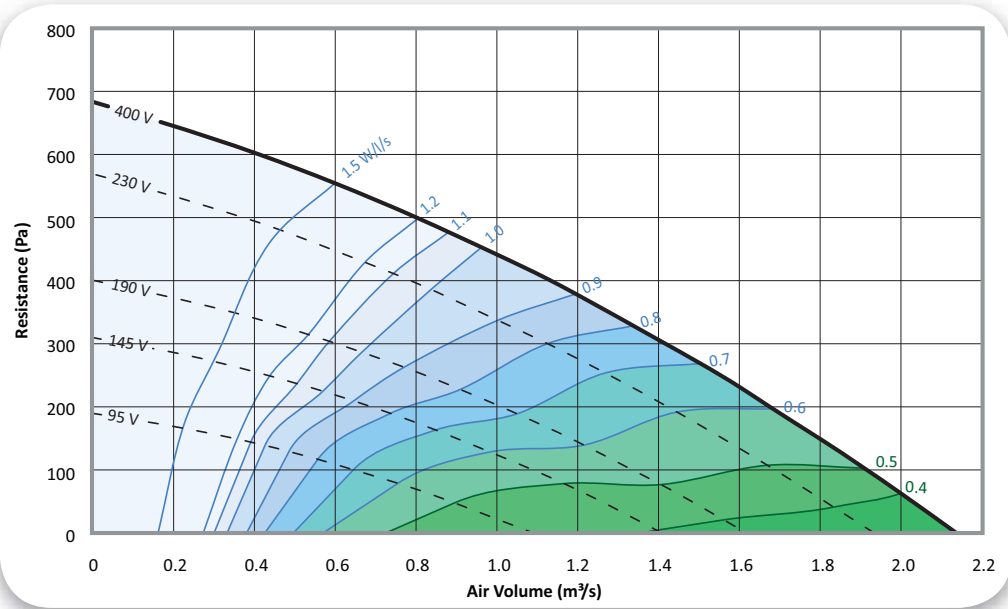
Unit Size 8 CLT839-3

2a Performance

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

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

Tolerances:
On flow rates: +/- 5%
On acoustic power and pressure: Levels: +/- 3 dB
By octave band: +/- 5 dB



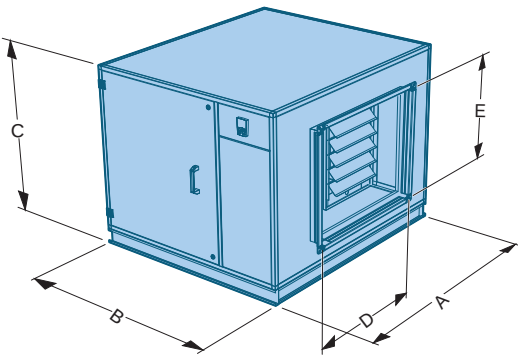
Size	Phase	Motor Size	Voltage	Fan Speed	Motor Full Load Current	Speed Control
CLT839-3	3 Phase	1.2 kW	400 VAC	1330 rpm	2.2 A	Electric Thyristor

2b Configuration

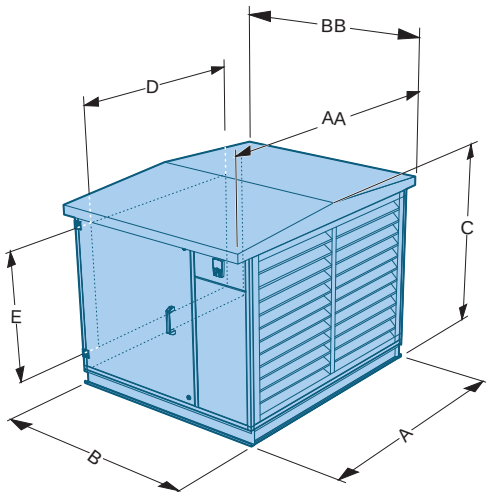
Configuration and Handling

CLT839-3 / PH WH/ L R/

PH Plantroom



WH Weatherproof



Unit Type	Dimensions mm							Weight kg	Configuration Options	
	A	AA	B	BB	C	D	E		L	R
CLT8 Plantroom Twin	1450		1250		1075	800	600	248	✓	✓
CLT8 Weatherproof Louvre Outlet Twin	1450	1600	1250	1350	1150	800	600	275	✓	✓

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

2c Controls

Controls
CLT839-3 / PH / DS / I CPSC
CP

	Integral to AHU	Integral to AHU with fitted speed control	Loose panel	Loose panel with fitted speed control
CLT839-3	CPD7-3/P/B	CPD7-3/P/SC/B	CPD7-3/N/B	CPD7-3/N/SC/B

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

2d Noise Data and Silencer Option

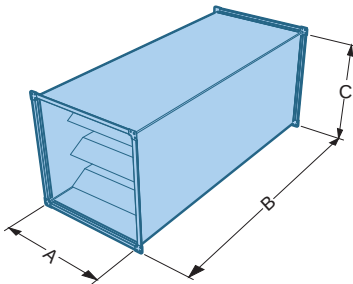
Fan Voltage	Sound Spectrum dB re 10 ⁻¹² W PWL Centre Frequency (Hz)								Casing Noise Breakout			
	63	125	250	500	1k	2k	4k	8k	NR @ 1m	NR @ 3m	dBA @ 1m	dBA @ 3m
400 VAC	75	77	72	69	73	59	55	58	45	38	47	40
300 VAC	73	75	69	67	61	56	53	55	42	35	44	37
240 VAC	70	72	65	67	57	52	48	51	37	30	40	34
190 VAC	68	66	61	65	53	48	45	40	33	26	36	30
145 VAC	67	59	54	54	49	42	38	31	25	18	30	23

Centre Frequency	63	125	250	500	1k	2k	4k	8k
Case Insertion Loss	-1	-4	-3	-18	-27	-26	-24	-20

Silencer Option	Sound Spectrum dB re 10 ⁻¹² W PWL Centre Frequency (Hz)							
	63	125	250	500	1k	2k	4k	8k
CLVA800/1200	63	125	250	500	1k	2k	4k	8k
Induct Loss	-5	-9	-16	-30	-39	-39	-31	-26
CLVA800/1200	A		B		C		Weight kg	
Dimensions mm	800		1200		600		45	

Note: The silencer will add a maximum of 75 Pa to the external resistance.

Silencer - CLVA800/1200



Available on
vesdirect.co.uk



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

SIZE 8 - CLT839-3

Selection Data

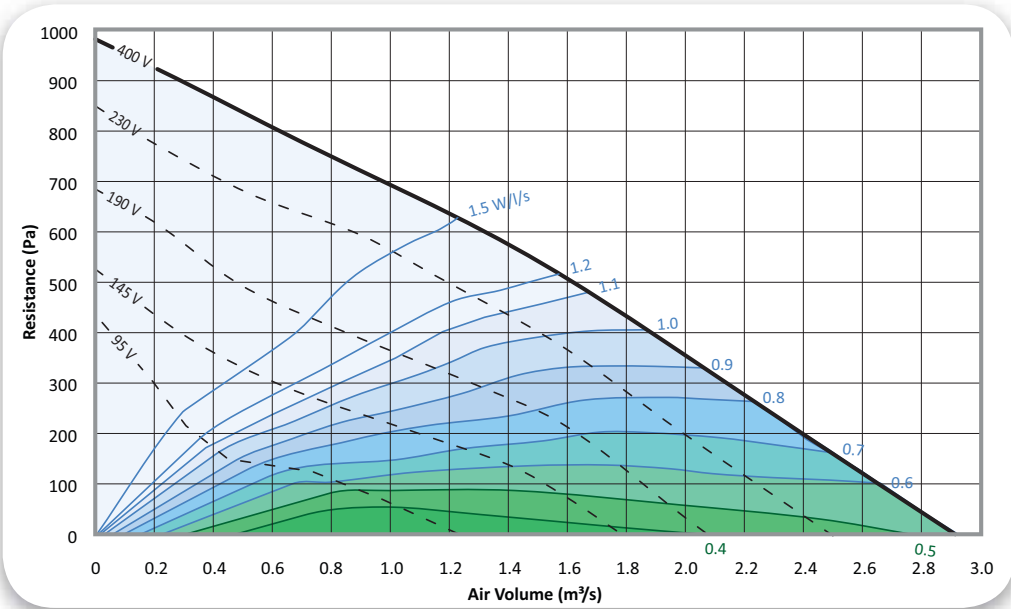
Unit Size 9 CLT9310-3

2a Performance

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

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

Tolerances:
On flow rates: +/- 5%
On acoustic power and pressure: Levels: +/- 3 dB
By octave band: +/- 5 dB



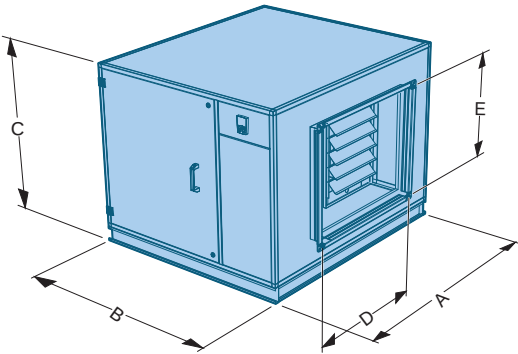
Size	Phase	Motor Size	Voltage	Fan Speed	Motor Full Load Current	Speed Control
CLT9310-3	3 Phase	2.1 kW	400 VAC	1340 rpm	4.2 A	Electric Thyristor

2b Configuration

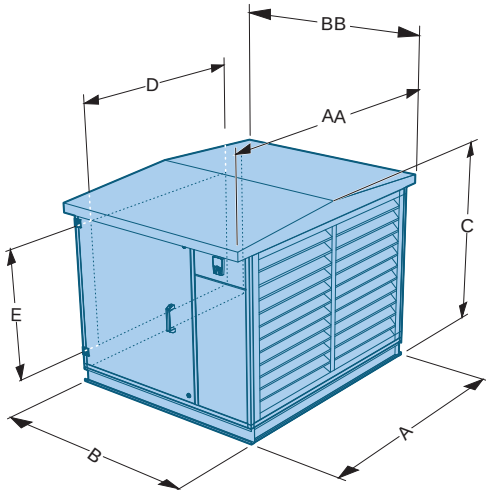
Configuration and Handling

CLT9310-3 / PH WH/ L R/

PH Plantroom



WH Weatherproof



Unit Type	Dimensions mm							Weight kg	Configuration Options	
	A	AA	B	BB	C	D	E		L	R
CLT9 Plantroom Twin	1550		1350		1175	900	700	342	✓	✓
CLT9 Weatherproof Louvre Outlet Twin	1550	1700	1350	1450	1250	900	700	372	✓	✓

2c Controls

Controls
CLT9310-1 / PH / DS / I CPSC CP

	Integral to AHU	Integral to AHU with fitted speed control	Loose panel	Loose panel with fitted speed control
CLT9310-1	CPD9-3/P/B	CPD9-3/P/SC/B	CPD9-3/N/B	CPD9-3/N/SC/B

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

2d Noise Data and Silencer Option

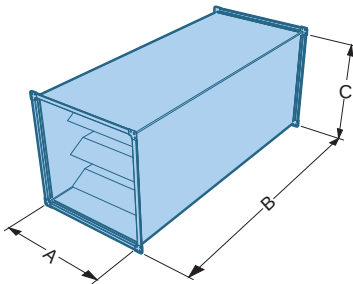
Fan Voltage	Sound Spectrum dB re 10 ⁻¹² W PWL Centre Frequency (Hz)								Casing Noise Breakout			
	63	125	250	500	1k	2k	4k	8k	NR @ 1m	NR @ 3m	dBA @ 1m	dBA @ 3m
400 VAC	70	80	73	68	63	58	56	62	46	39	48	42
300 VAC	69	75	69	62	59	53	52	57	42	35	44	37
240 VAC	68	67	61	58	54	47	50	43	33	26	37	30
190 VAC	68	67	58	53	48	43	48	32	30	23	36	29
145 VAC	64	61	50	47	43	42	38	27	23	15	30	23

Centre Frequency	63	125	250	500	1k	2k	4k	8k
Case Insertion Loss	-1	-4	-3	-18	-27	-26	-24	-20

Silencer Option	Sound Spectrum dB re 10 ⁻¹² W PWL Centre Frequency (Hz)							
	63	125	250	500	1k	2k	4k	8k
CLVA900/1200	63	125	250	500	1k	2k	4k	8k
Induct Loss	-5	-9	-16	-30	-39	-39	-31	-26
CLVA900/1200	A		B		C		Weight kg	
Dimensions mm	900		1200		700		65	

Note: The silencer will add a maximum of 95 Pa to the external resistance.

Silencer - CLVA900/1200



Available on
vesdirect.co.uk



SIZE 9 - CLT9310-3

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

Prewired/Fitted Controls

Demand Ventilation

Case Construction

Filters

Air Quality

Thyristor Heater

Energy Efficient Fans

Speed Control

Plug & Play

Humidity

Temperature

Heat Recovery

Colourfan BlueSense

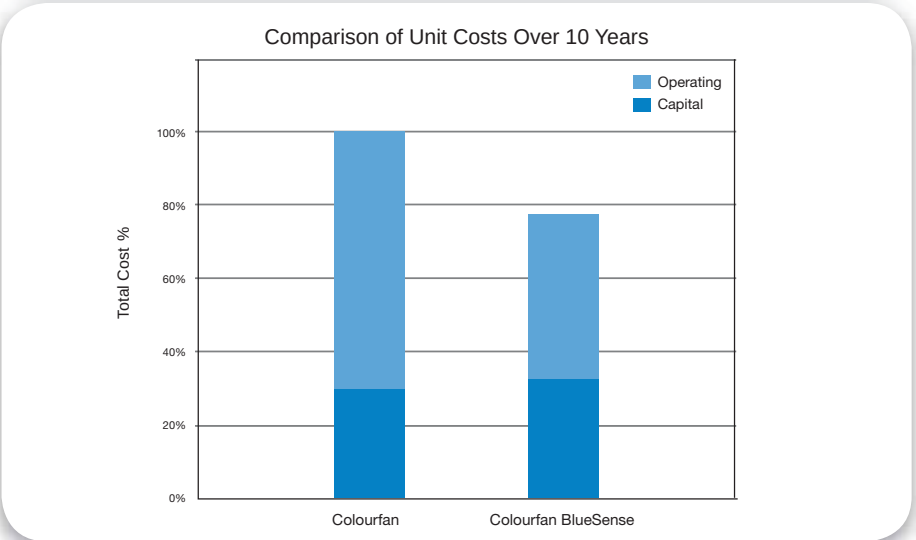
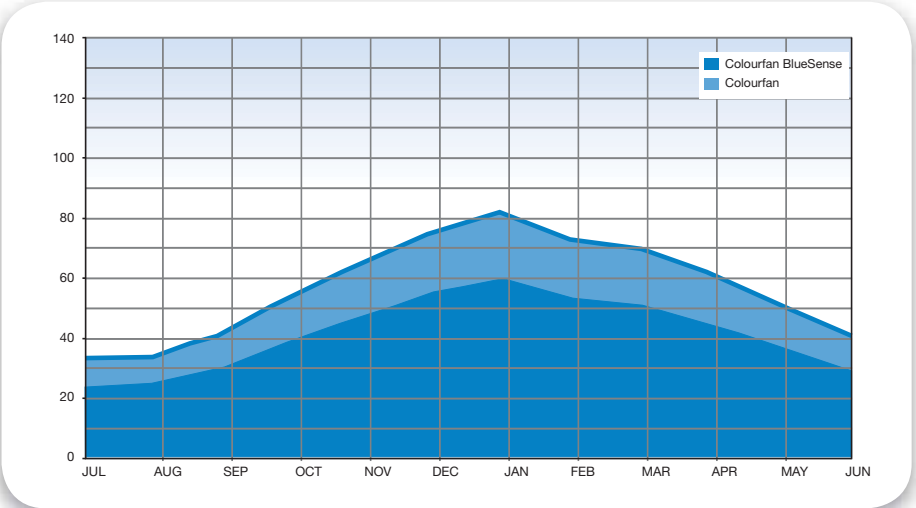
All products in the Colourfan range can form part of a BlueSense energy saving package. Specify BlueSense to ensure, Extract or Twin Extract units are optimised with pre-wired controls, energy efficient speed controller and air quality sensor. All of these work in unison, reducing energy consumption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

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.



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.

A BlueSense Example

Colourfan Unit with Integral Controls

+

Optional Integral Speed Controller

+

Optional Air Quality Sensor

=

BlueSense

The sign of energy saving products, services and expertise



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



Air Quality Sensor



Speed Controller

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

Features

- Single or three phase, twin extract fan control, with matching speed control options
- 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

		CPD	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		✓	✓
24Vdc 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, & 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:

- EC Fans (Available with our Acoustic range)
- Dual outlet spigots
- Side spigots
- Bottom spigots
- Aesthetic requirements and paint colour finishes
- Saline environment
- Extreme temperatures
- Cooling coils

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



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



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 Extract 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 circular or 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. 1. Units size 0-6 shall have circular duct spigots complete with rubber gasket seals as indicated in the schedule and detail drawings.
2. Units size 7-9 shall have rectangular dust spigots complete with 30mm MEZ flange as Indicated In the schedule and detail drawings.
- E. Weatherproof units shall be available with horizontal or bottom mounted 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. 1. Sizes 0-6 The unit casework shall incorporate high quality dual layer memory rubber gasket seals on service doors and panels.
2. The unit casework shall incorporate high quality leak resistant neoprene gaskets seals on service doors and panels.
- H. 1. Sizes 0-6 The unit shall be available with optional fitted flame retardant acoustic lining as standard to ensure maximum thermal insulation and reduced noise transmission.
2. Sizes 7-9 The unit shall be provided pre-assembled comprising of a rigidly constructed 25mm tubular aluminium case, double skinned galvanised sheet steel panels.
- I. Access for maintenance shall be via removable panels, allowing access for the cleaning or removal of internal components as indicated in the schedule and detail drawings.
- J. 1. Plantroom units 0-6 shall be suitable for top or bottom access as indicated in the schedule and detail drawings. Weatherproof units 0-6 shall be suitable for top access only via a removable weather lid.
2. Plantroom units 7-9 shall be suitable for side access as indicated in the schedule and detail drawings. Weatherproof units 0-6 shall be suitable for side access only via a removable weather lid.
- K. The casework shall incorporate mounting brackets compatible with drop-rod support systems.
- L. 1. Sizes 0-6 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 7-9 Weatherproof units shall be supplied as standard with 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 impeller shall be of PA6 glass-fiber reinforced, backward curved plastic blade construction with galvanised steel mounting plate.
- B. The fan impeller shall be statically and dynamically balanced to G 2.5 / G 6.3 according to ISO1940 part 1.
- C. The fan impeller shall be mated with an aerodynamic bell inlet eye for high efficiency and low noise generation.

1.4. Motors

- A. The fan shall incorporate an external rotor motor to IP44 environmental protection rating and shall be supplied with thermal protection cut out as standard.
- B. The size 0 and 1 unit motor shall be to insulation class B. The size 2 and above unit motor shall be to insulation class F.
- C. The integrated motor shall be supplied epoxy painted blue to RAL5002.
- D. The integrated motor shall be available as AC or with high efficiency EC (Electronically Commutated) controller as standard.
- E. The motor shall be supplied pre-wired and fitted with a quick-change plug connector.

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%.



Example Coding
Twin Extract CLT 031-1/MH/L/RT/L

Colourfan [®] Twin Extract				Case Construction			Options			Ancillaries Examples	
Product	Unit Size	Fan Type	Fan Phase	Unit Config	Infill	Handling	Control Panel Section	Inlet/Outlet	Colour	Name	Part No.
CLT	0	3	1	-1						Control Panel	CPD0-1/P/SC/B
	1	3	2	-1	/PH	/RT	/I	/L	/R7004	Silencer	CLV/A000/1000
	2	3	3	-1	/MH	/RB	/CP	/CS			
	3	3	4	-1	/ML	/LT	/CPSC	/SP			
	4	3	5	-1		/LB					
	5	3	6	-1		/R					
	6	3	7	-1							
	7	3	8	-3							
	8	3	9	-3							
	9	3	10	-3							

Product
CLT=Colourfan Twin Extract

Unit Config
/P=Plantroom
/M=Weatherproof
/PH=Plantroom Horizontal Inlet/Outlet
/PL=Plantroom L Shape Inlet/Outlet
/MH=Weatherproof Horizontal Inlet/Outlet
/ML=Weatherproof L Shape Inlet/Outlet

Infill
[null]=No Lining
-AL=Acoustic Lined
-DS=Doubled Skinned

Handling
/RT=Right Top
/RB=Right Bottom
/LT=Left Top
/LB=Left Bottom
/L=Left
/R=Right

Control Panel Section
/I=Isolator
/CP=Control Panel
/CPSC=Control Panel and Speed Control

Inlet / Outlet
/L=Louvre
/CS=Circular Spigot
/SP=Square Spigot

Colour
[null]=Galvanneal
/R=RAL (colours)

1.6. Controls

The unit shall be fully compatible with a standard range of controls. Options can include pre-wired, factory fitted and tested or loose for wall mounting. Control packages shall include all necessary components to effectively operate the ventilation system.

- A. BlueSense controls combine integrated and pre-wired, factory fitted and tested control package, energy efficient speed controller and air quality sensor or PIR providing effective and efficient control of the fans, heater and other energy consuming components of the ventilation system.

The BlueSense energy saving package shall have the following devices optimised for improved air quality and minimal energy usage:-

- Integral energy efficient speed controller
- Speed control adjustment to aid commissioning complete with minimum and maximum speed limitations
- Demand ventilation control using air quality sensor calibrated to measure for CO₂ and / or VOC, or 2 speed from PIR input, constant temperature, constant humidity or constant pressure as indicated in the schedule
- Automatic fan change over on airflow failure
- Duty share with 12 hour run-time memory retention
- Start stop from remote volt free contacts
- 7 day time clock with battery backup
- Volt free run and trip indicators
- Common volt free enable, and 24 VDC fire alarm interface
- Optional remote status indicator
- Suitable for internal and external locations

- B. The CPD control range shall contain the following:-

- Automatic fan change over on airflow failure
- Duty share with 12 hours run-time memory retention
- 7 day time clock with battery backup
- Volt free run and trip indicators
- Volt free enable and 24 VDC fire alarm interface
- Optional remote status indicator
- Suitable for internal and external locations

- C. The CPF controls range shall contain the following:-

- Automatic fan change over on airflow failure
- Fully programmable digital controller with commissioning and adjustment for constant pressure, humidity and temperate applications
- Duty share with 12 hour run-time memory retention
- Start stop from remote volt free contacts
- 7 day time clock with battery backup
- Volt free run and trip indicators
- Volt free enable, and 24 VDC fire alarm interface
- Optional remote status indicator
- Suitable for internal and external locations

- D. If controls are not specified the unit shall come complete pre-wired to an external isolator

- E. If speed control is indicated in the schedule the unit shall be supplied with an internally mounted speed controller pre-wired to an integral control package or external isolator.

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 single skinned galvanised sheet steel lining 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.

Colourfan® Twin Step by Step Guide

1

Choose Duties up to 2.5 m³/s

Colourfan® Twin

Duties up to 2.5 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



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 wheel, run-around coils.
- Plantroom or weatherproof, flat or stacked.
- Fitted silencers, fitted 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 fans, axial and mixed flow fans.
- Fitted silencers available 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

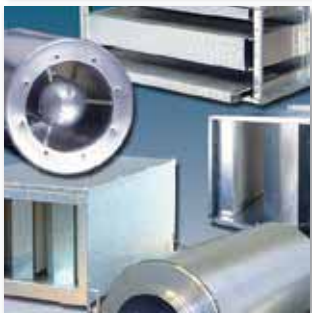
- Off the shelf and built to order panels.
- Air quality sensors and energy savers.
- Intelligent control software.
- A range of remotes including touch screen.

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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Issue CLT02W - 08/2013

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

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