

Colourfan Supply Acoustic

- ▶ 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 weatherproof options
- ▶ Fully optimised low energy EC fans
- ▶ Low SFPs to achieve L2 building regulations
- ▶ High quality case construction to BS EN 1886
- ▶ Options for filter grades to suit a range of requirements
- ▶ Fitted BlueSense intelligent controls for simple installation
- ▶ BIM files available



**DUTIES UP TO
2.8 m³/s**



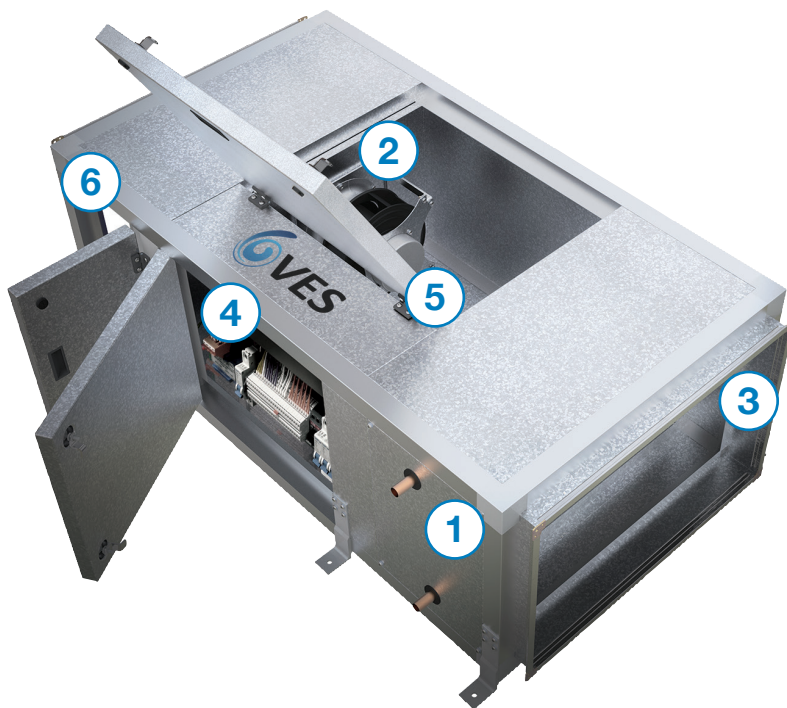
Colourfan® Supply Acoustic
*part of a complete range of innovative, flexible products
from the HVAC experts*

Colourfan Supply Acoustic

Colourfan Supply 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" connections or pre-wired fitted controls.

The Colourfan Supply 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® Supply Acoustic Features and benefits

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

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

Simple installation and maintenance

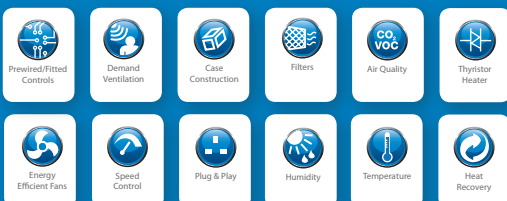
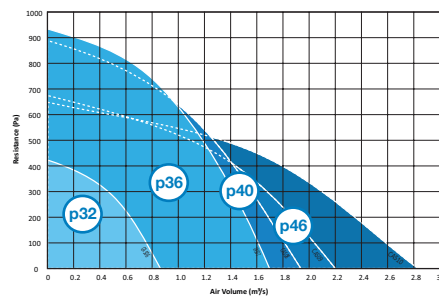
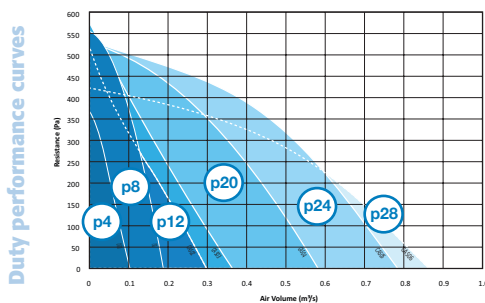
Simple connection and pre-installed features save on site costs and reduce lead times. Carefully designed maintenance features minimise downtime and total cost of ownership.

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 airtight performance

Colourfan Supply Acoustic performance



Energy Saving

Intelligent controls enhance performance whilst saving energy and money.

Premium efficiency supply units



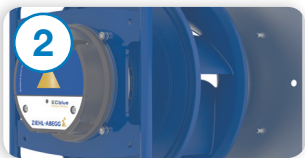
Energy efficient

Energy efficient units with low SFPs to help achieve L2 Building Regulations. Units are fully tested to BS EN ISO 5801:2017 (airside performance) and BS EN ISO 3744:2010 (acoustic performance).



Noise reduction

Our quietest 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.



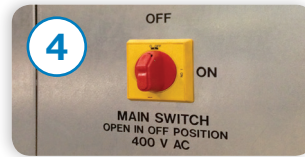
Complete ventilation package

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



Easy connections

Rectangular spigot connections are fitted with a flange, avoiding the need for additional accessories.



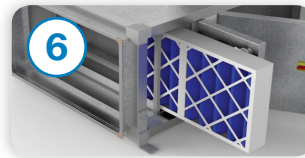
Pre-wired isolator

The unit is pre-wired to an isolator package to reduce on site wiring.



Plug & Play fans

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



Filter maintenance

Dual access panels enable the filters to be replaced, without the need to remove large access panels.



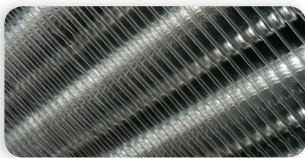
Multi access

Plantroom units suitable for top, bottom or side access to fans, left or right access to electrical connections. External units are side 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.



Heating options

A variety of modulating LPHW and electric heater options are available to suit the required application



Section joints

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 RAL 7004 as standard, with many other colours available.

BlueSense energy saving package



Colourfan Supply Acoustic unit with integral controls



EC fan with full control



Sensor options



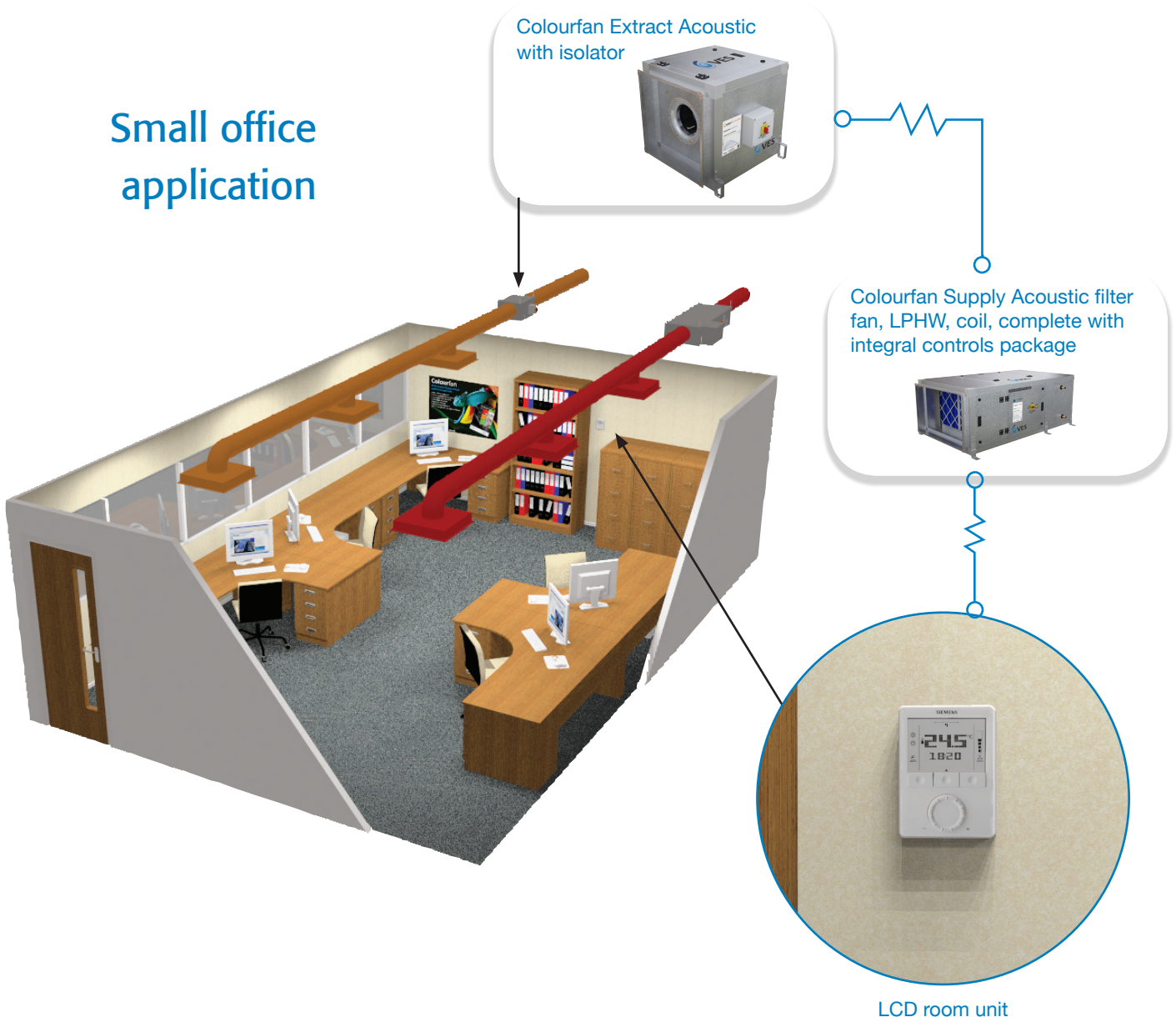
The sign of energy saving products, services and expertise

Colourfan *Extract Acoustic*

Supply, extract
or twin extract
working together

The Colourfan Supply Acoustic unit 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 installations.

Small office
application

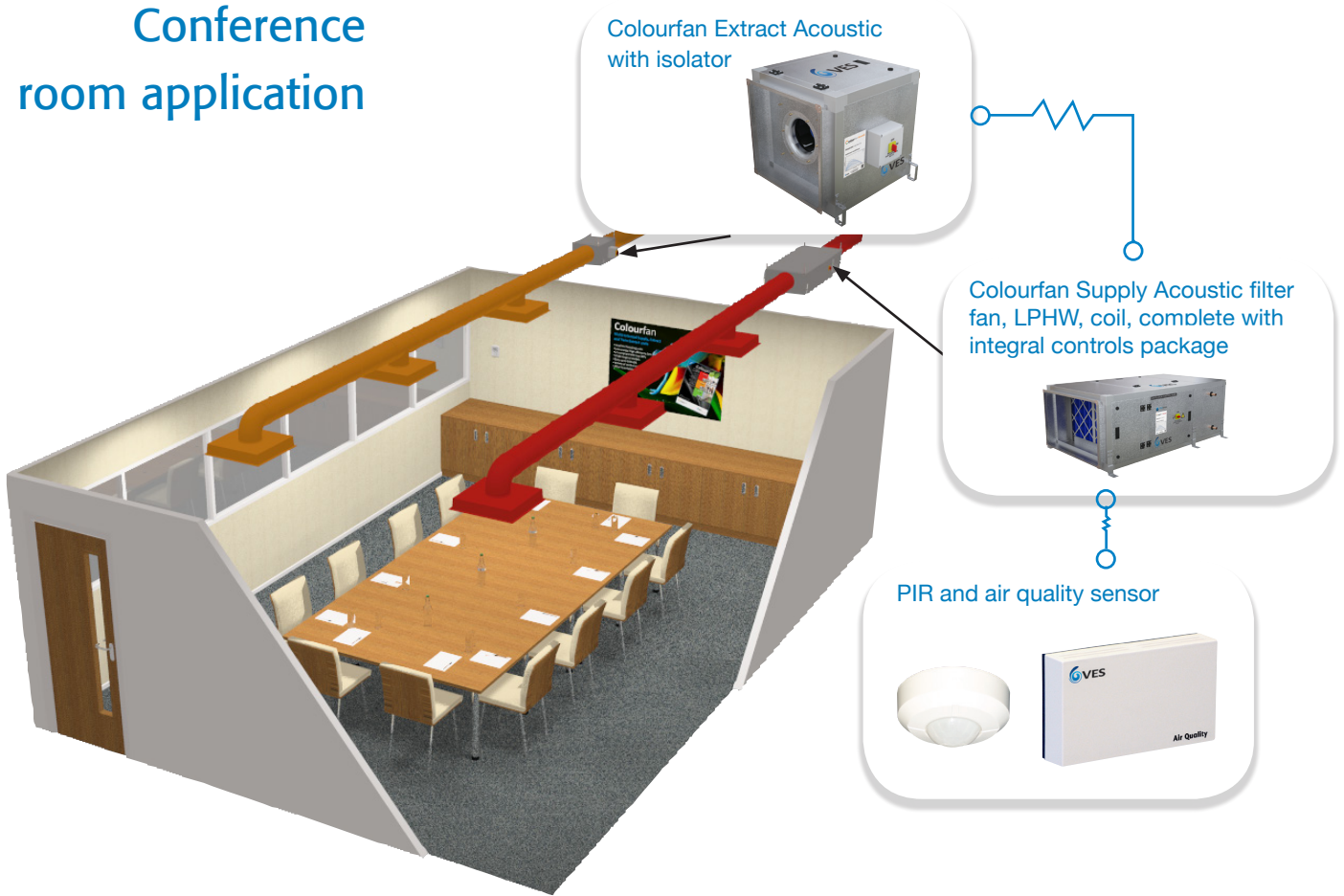


Colourfan BlueSense

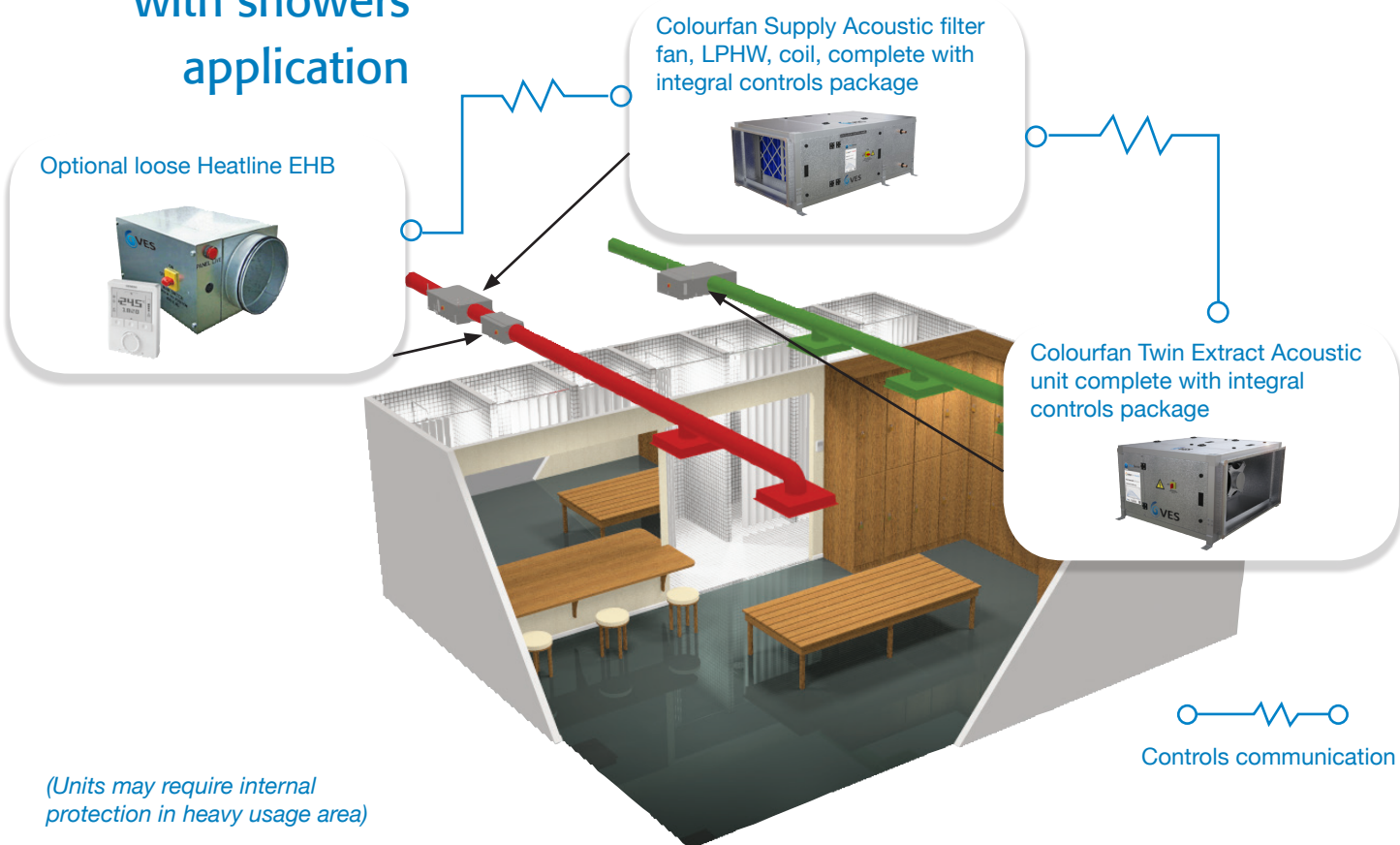
All products in the Colourfan range can form part of the BlueSense energy saving commitment. By specifying a BlueSense package you are ensuring your Supply Acoustic, Extract Acoustic or Twin Acoustic unit is optimised with a pre-wired controls package, energy efficient speed controller and air quality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

Premium efficiency extract units

Conference room application



Changing room with showers application



(Units may require internal protection in heavy usage area)

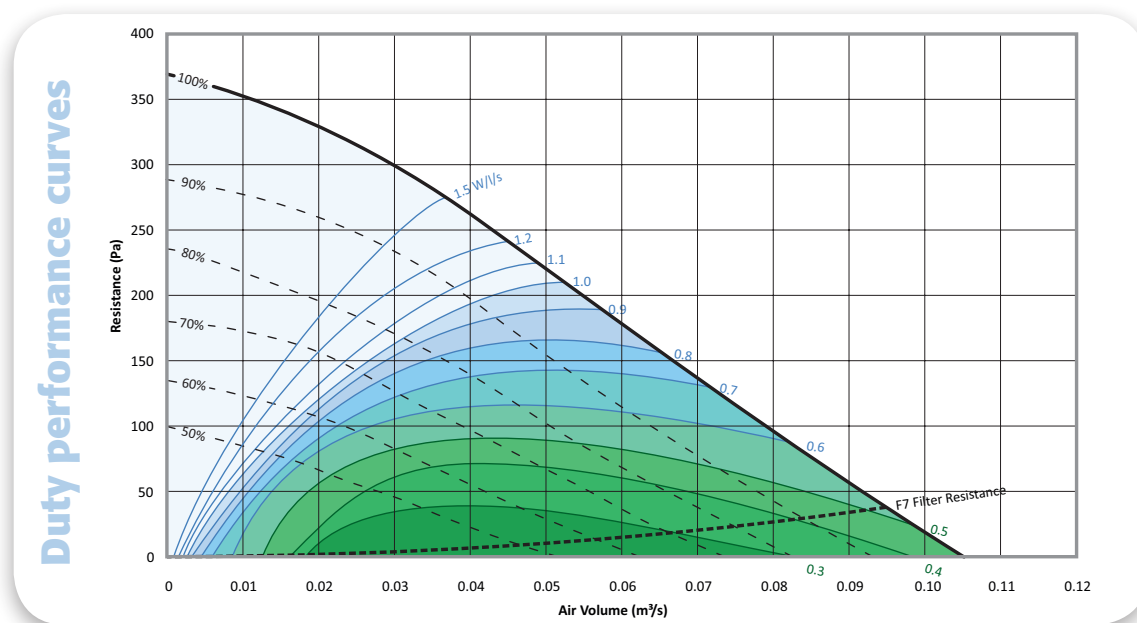
Colourfan Supply Acoustic

Selection data

Unit size 0 CAS0051-1

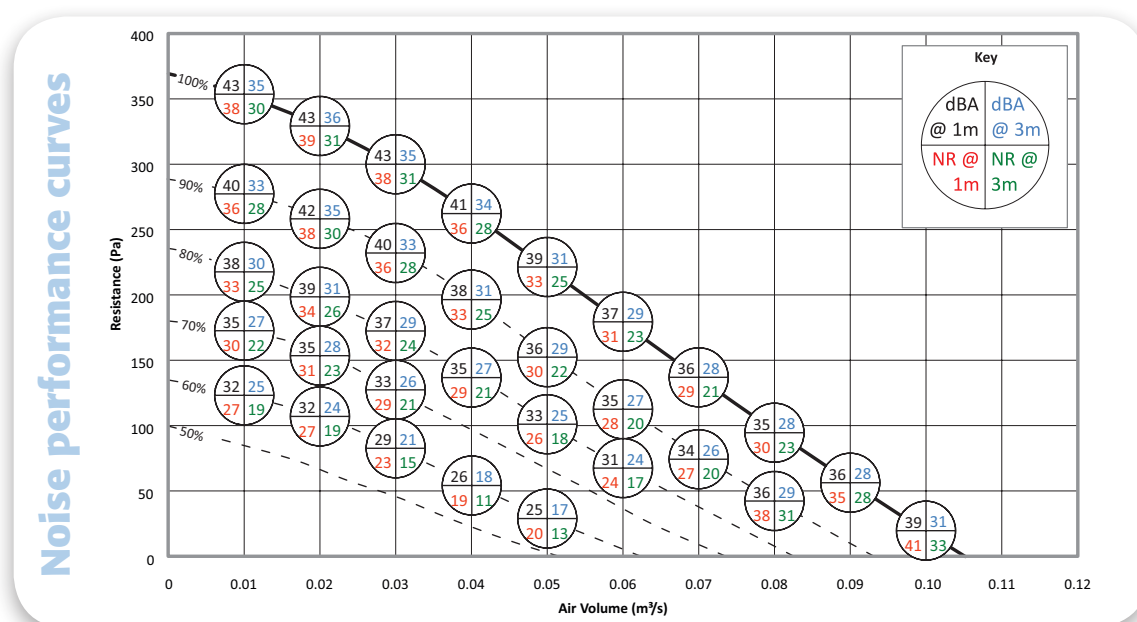
Performance

Size	Phase	Motor Size	Voltage	Fan Speed	Motor Full Load Current	Speed Control
CAS0051-1	1 Phase	0.043 kW	230 VAC	4501 rpm	0.32 A	EC



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

Notes: SFP figures quoted at voltages tested in accordance with BS EN ISO 5801:2017. The fan performance is calculated using standard G4 filters. Alternative F7 filters will add a maximum of 40 Pa. For specific duty information add the additional resistance to the total external resistance from the F7 curve above.



Note: NR levels are dependent upon environmental conditions.
Tolerances:
On flow rates $\pm 5\%$
On acoustic power and pressure: levels ± 3 dB
By octave band: ± 5 dB

Note: Data for design guidance only. Detailed information is available upon request.

Heating and controls

Heating
CAS0051-1 / P - W / EE / LT / G4 / ISC
W E RT F7 CPSC
RB LB

Controls

	Technical Data						Heating and control options	
	Air volume m ³ /s	Maximum leaving air Temp °C	Maximum kW output	Water flow rate l/s	Water pressure kPa	Coil connection size BSP	Control panel	Valve and actuator kit
LPHW Heating	0.03	34.50	1.44	0.03	3.00	½"	CPG0-1/W/P/C	CASCWKT0000
	0.05	31.40	2.21	0.05	3.00			
	0.07	29.20	2.90	0.06	3.00			
	0.09	27.20	3.51	0.08	3.00			

LPHW coil, designed for LPHW 82/71°C, EAT -5°C, LAT 25 °C, coil construction copper tubes, aluminium fins, coil connections ½ BSP.
 Note: If no control panel is purchased the unit will be supplied with a main isolator.

	Technical Data			Heating and control options			
	Air volume m ³ /s	Maximum leaving air Temp °C	Maximum kW output	1ph - Electric heater		3ph - Electric heater	
				Electric heater	Control panel	Electric heater	Control panel
Electronic thyristor heating	0.030	22.54	1	EHCA00/1KW/1X1	CPG0-1/3KW-1/P/C	N/A	N/A
	0.050	28.05	2	EHCA00/2KW/1X1			
	0.070	30.41	3	EHCA00/3KW/1X1		N/A	
	0.080	22.54					

Air off temperature based upon entering air of -5°C. Power = Air volume x Constant Temperature rise. kW =m³/s x 1.21 x ΔT°C.
 Note: If no control panel is purchased the unit will be supplied with a main isolator.

Noise and silencer data

Fan voltage	Fan speed (RPM)	Sound spectrum dB re 10 ⁻¹² w PWL centre frequency (Hz)								Casting noise breakdown			
		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	46	38	42	35
90%	4050	63	58	49	45	36	37	33	34	27	20	34	26
80%	3600	61	56	47	42	33	34	30	30	24	17	31	24
70%	3150	59	54	44	39	30	31	26	27	22	14	29	21
60%	2700	56	51	42	36	27	28	23	24	19	11	26	18
50%	2250	52	47	39	34	23	24	19	20	16	8	23	15
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)							
CASVA0000/1200/STD	63	125	250	500	1k	2k	4k	8k
Induct loss	-6	-8	-12	-19	-26	-32	-24	-21

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

Colourfan Supply Acoustic

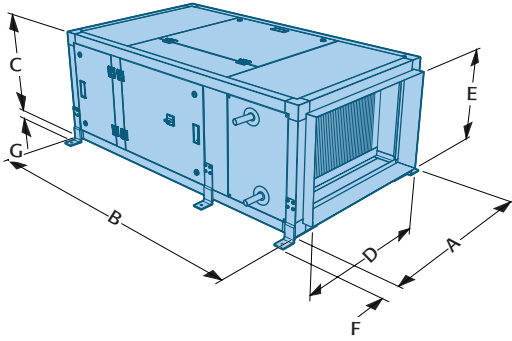
Unit and silencer configuration

Heating

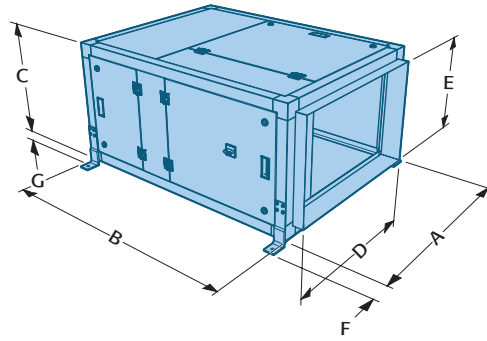
Controls

CAS0051-1 / P - **W** / EE / LT / G4 / **ISC**
W **E** RT F7 **CPSC**
 RB
 LB

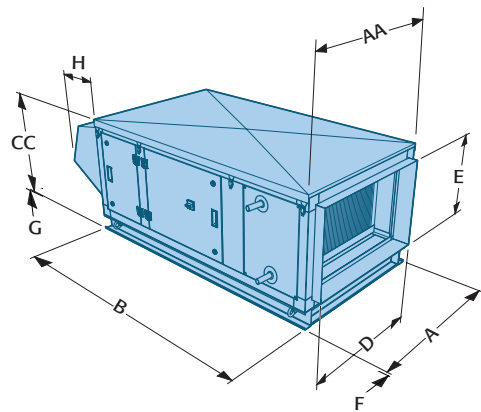
P Plantroom with heating



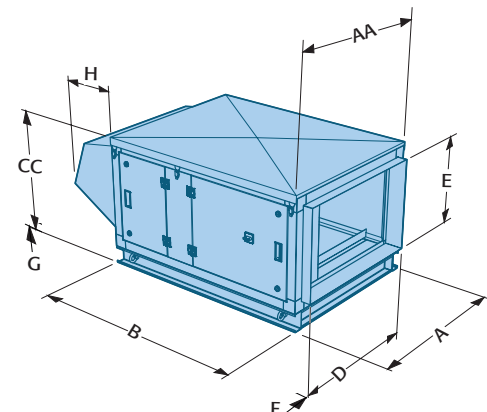
P Plantroom without heating



W Weatherproof with heating



W Weatherproof without heating

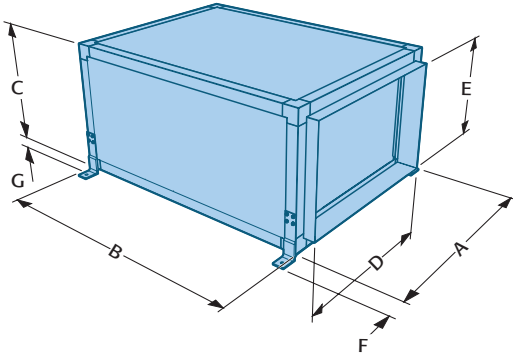


Unit type	Dimensions (mm)									Weight (kg)	Configuration options			
	A	AA	B	C	D	E	F	G	H		LT	LB	RT	RB
CAS0 Fan / Filter plantroom supply	490		1050	340	390	240	50	25		65	✓	✓	✓	✓
CAS0 Fan / Filter / Heater plantroom supply	490		1450	340	390	240	50	25		90	✓	✓	✓	✓
	A	AA	B	CC	D	E	F	G	H					
CAS0 Fan / Filter weatherproof supply	490	500	1050	365	390	240	50	25	200	75	✓		✓	
CAS0 fan / filter / Heater weatherproof supply	490	500	1450	365	390	240	50	25	200	100	✓		✓	

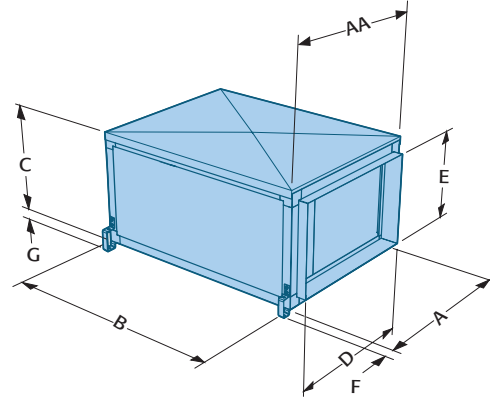
Note: Data for design guidance only. Detailed information is available upon request.

Silencer

Plantroom



Weatherproof



Unit type	Dimensions (mm)								Weight (kg)
	A	AA	B	C	D	E	F	G	
CAS0 Silencer plantroom	490		1300	340	390	240	50	25	60
CAS0 Silencer weatherproof	490	500	1300	365	390	240	50	25	65

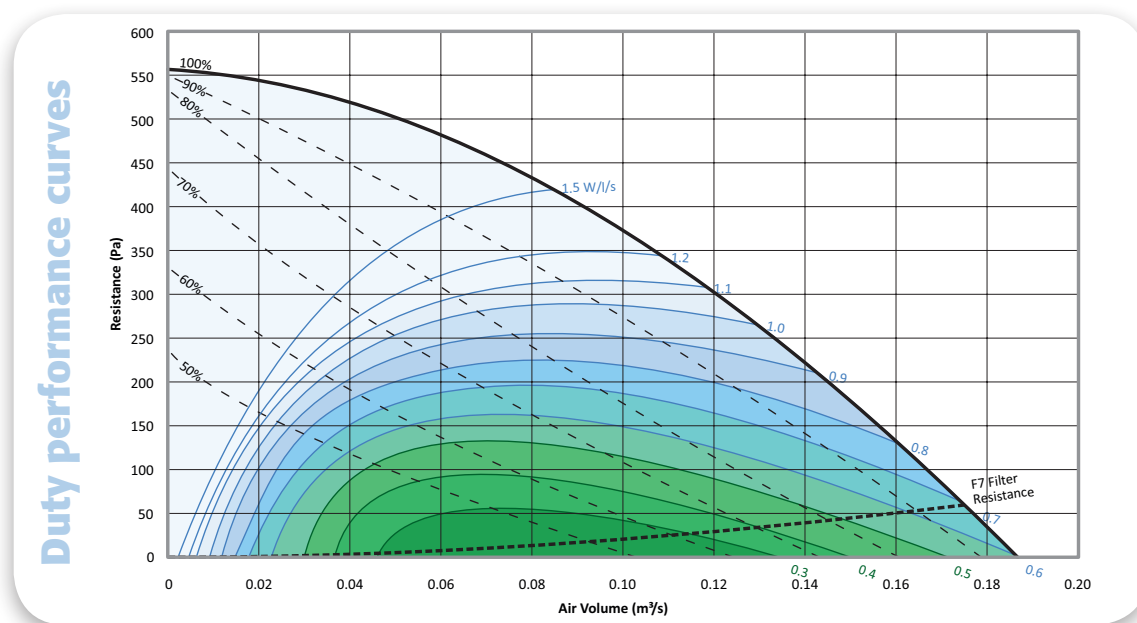
Colourfan Supply Acoustic

Selection data

Unit size 1 CAS0141-1

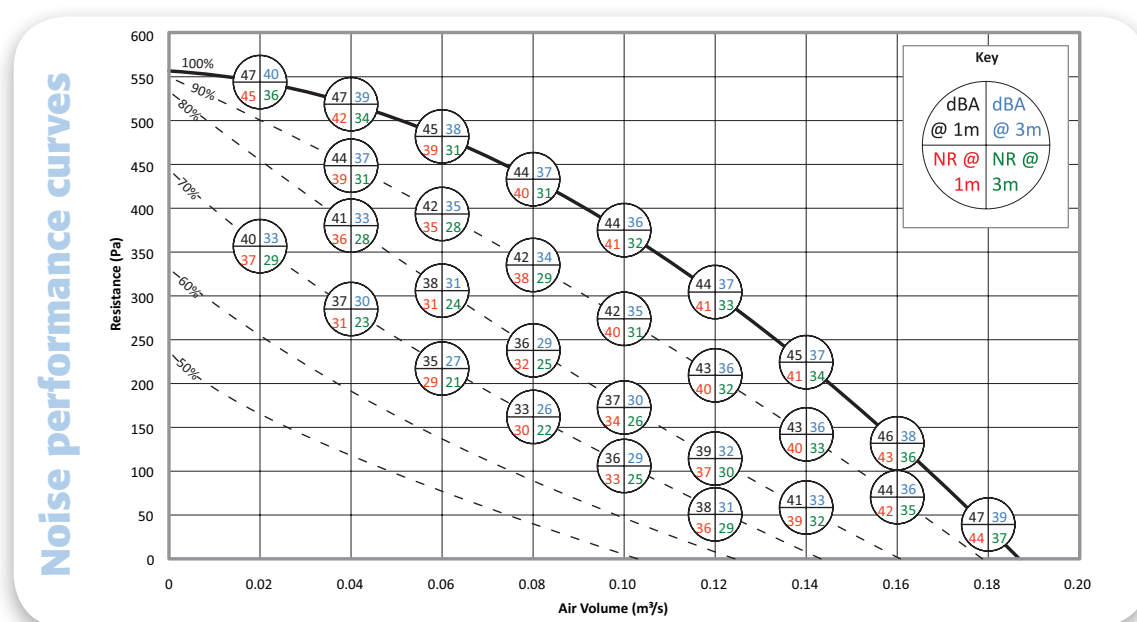
Performance

Size	Phase	Motor Size	Voltage	Fan Speed	Motor Full Load Current	Speed Control
CAS0141-1	1 Phase	0.012 kW	230 VAC	3490 rpm	0.68 A	EC



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

Notes: SFP figures quoted at voltages tested in accordance with BS EN ISO 5801:2017. The fan performance is calculated using standard G4 filters. Alternative F7 filters will add a maximum of 60 Pa. for specific duty information add the additional resistance to the total external resistance from the F7 curve above.



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

Heating and controls

Heating
CAS0141-1 / P - W / EE / LT / G4 / ISC
W E RT F7 CPSC
RB LB

Controls

	Technical Data						Heating and control options	
	Air volume m ³ /s	Maximum leaving air Temp °C	Maximum kW output	Water flow rate l/s	Water pressure kPa	Coil connection size BSP	Control panel	Valve and actuator kit
LPHW Heating	0.060	31.10	2.63	0.06	3.00	½"	CPG0-1/W/P/C	CASCWKT0100
	0.60	29.50	3.34	0.07	3.00			
	0.100	28.20	4.03	0.09	3.00			
	0.120	27.20	4.68	0.10	3.00			

LPHW coil, designed for LPHW 82/71°C, EAT -5°C, LAT 25 °C, coil construction copper tubes, aluminium fins, coil connections ½" BSP.
 Note: If no control panel is purchased the unit will be supplied with a main isolator.

	Technical Data			Heating and control options			
	Air volume m ³ /s	Maximum leaving air Temp °C	Maximum kW output	1ph - Electric heater		3ph - Electric heater	
				Electric heater	Control panel	Electric heater	Control panel
Electronic thyristor heating	0.06	36.30	3	EHCA01/3KW/1X1	CPG0-1/3KW-1/P/C	N/A	N/A
	0.08	25.90					
	0.10	28.05	4	EHCA01/4KW/1X1	CPG0-1/6KW-1/P/C	N/A	
	0.12	36.32	6			EHCA01/6KW/1X1	

Air off temperature based upon entering air of -5°C. Power = Air volume x Constant Temperature rise. kW =m³/s x 1.21 x ΔT°C.
 Note: If no control panel is purchased the unit will be supplied with a main isolator.

Noise and silencer data

Fan voltage	Fan speed (RPM)	Sound spectrum dB re 10 ⁻¹² w PWL centre frequency (Hz)								Casting noise breakdown			
		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	45	38	48	41
90%	3141	81	62	55	47	40	47	45	46	40	32	43	36
80%	2792	69	59	51	45	35	41	40	39	32	25	36	29
70%	2443	64	57	47	41	32	40	38	34	30	22	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)								
CASVA0100/1200/STD	63	125	250	500	1k	2k	4k	8k	
Induct loss	-6	-8	-12	-19	-26	-32	-24	-21	

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

Colourfan Supply Acoustic

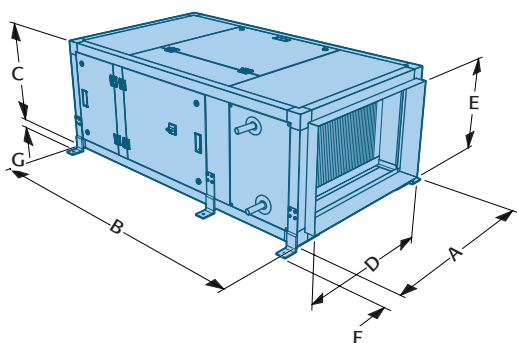
Unit and silencer configuration

Heating

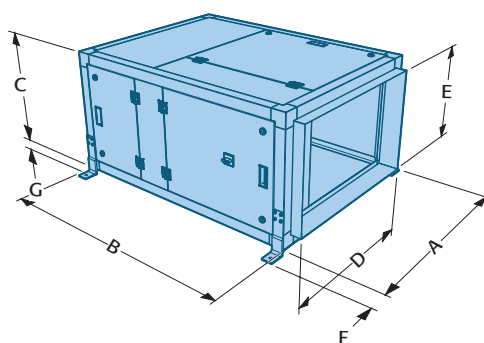
Controls

CAS0141-1 / P - **W** / EE / LT / G4 / **ISC**
W **E** RT F7 **CPSC**
 RB
 LB

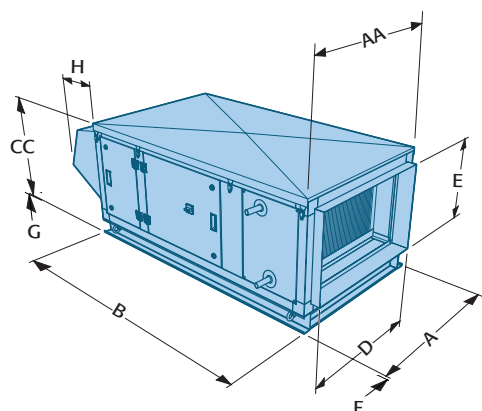
P Plantroom with heating



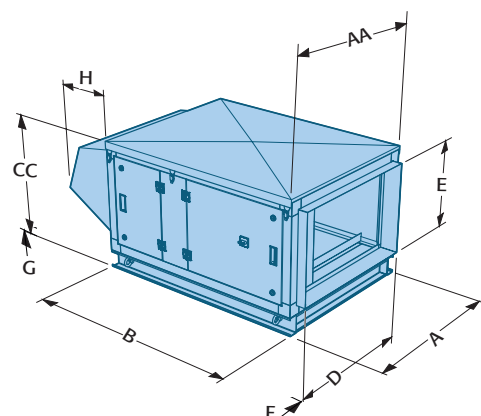
P Plantroom without heating



W Weatherproof with heating



W Weatherproof without heating

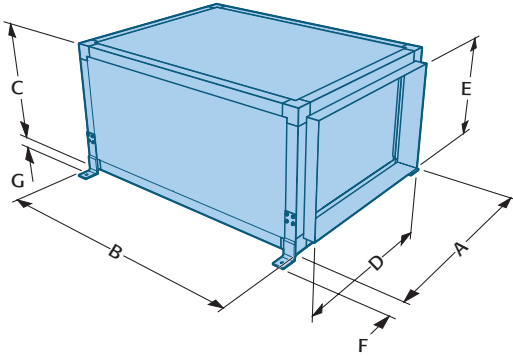


Unit type	Dimensions (mm)									Weight (kg)	Configuration options			
	A	AA	B	C	D	E	F	G	H		LT	LB	RT	RB
CAS1 Fan / Filter plantroom supply	590		1050	440	490	340	50	25		80	✓	✓	✓	✓
CAS1 Fan / Filter / Heater plantroom supply	590		1450	440	490	340	50	25		105	✓	✓	✓	✓
	A	AA	B	CC	D	E	F	G	H					
CAS1 Fan / Filter weatherproof supply	590	600	1050	465	490	340	50	25	250	85	✓		✓	
CAS1 fan / filter / Heater weatherproof supply	590	600	1450	465	490	340	50	25	250	120	✓		✓	

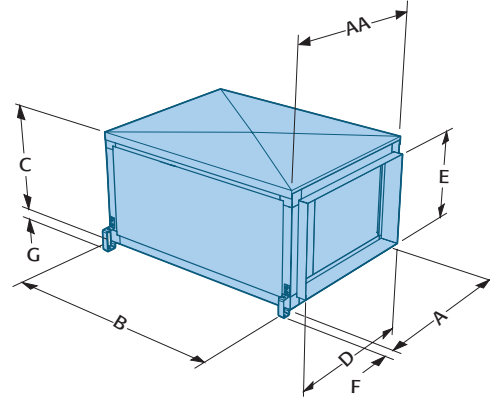
Note: Data for design guidance only. Detailed information is available upon request.

Silencer

Plantroom



Weatherproof



Unit type	Dimensions (mm)								Weight (kg)
	A	AA	B	C	D	E	F	G	
CAS1 Silencer plantroom	590		1300	440	490	340	50	25	70
CAS1 Silencer weatherproof	590	600	1300	465	490	340	50	25	80

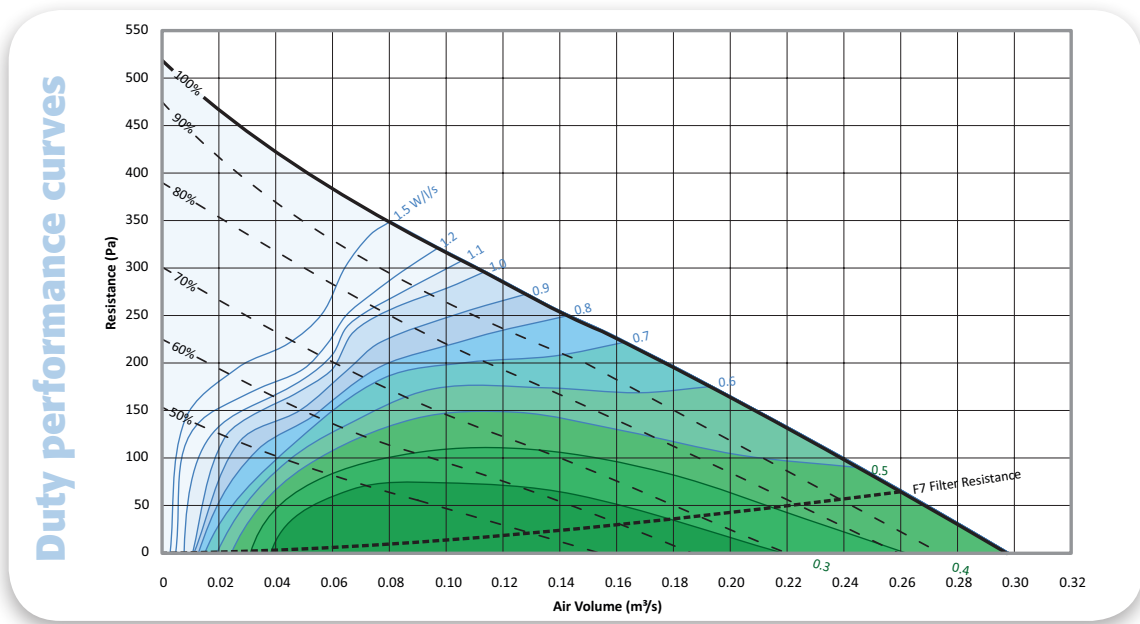
Colourfan Supply Acoustic

Selection data

Unit size 2 CAS0242-1

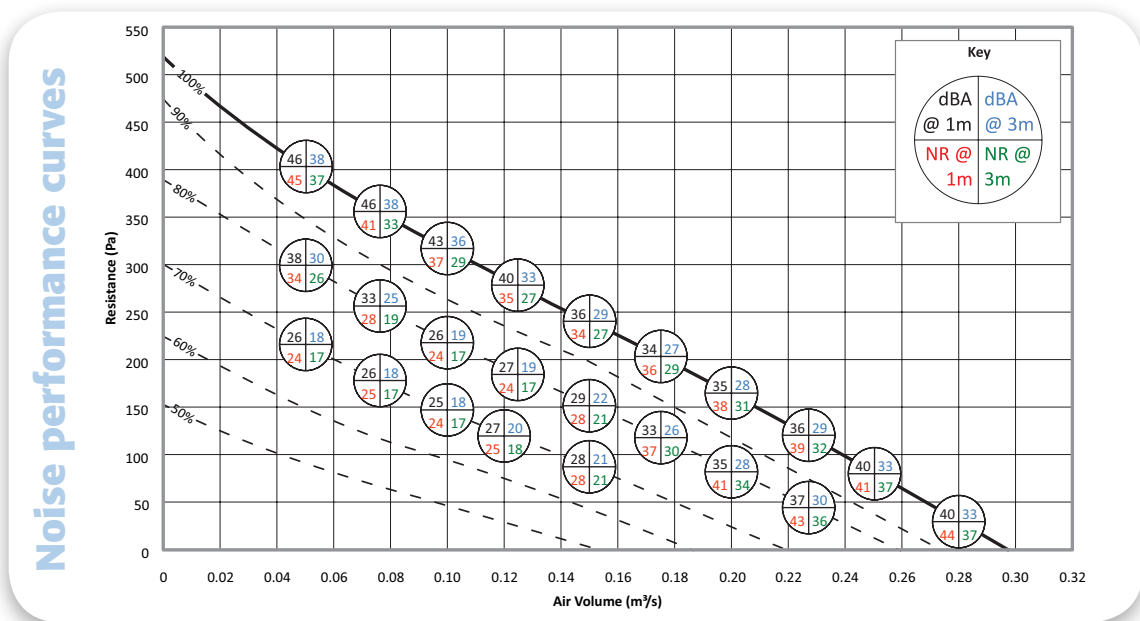
Performance

Size	Phase	Motor Size	Voltage	Fan Speed	Motor Full Load Current	Speed Control
CAS0242-1	1 Phase	0.14 kW	230 VAC	3240 rpm	0.78 A	EC



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

Notes: SFP figures quoted at voltages tested in accordance with BS EN ISO 5801:2017. The fan performance is calculated using standard G4 filters. Alternative F7 filters will add a maximum of 60 Pa. For specific duty information add the additional resistance to the total external resistance from the F7 curve above.



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

Heating and controls

Heating
CAS0242-1 / P - W / EE / LT / G4 / ISC
W E RT F7 CPSC
RB LB

Controls

	Technical Data						Heating and control options	
	Air volume m ³ /s	Maximum leaving air Temp °C	Maximum kW output	Water flow rate l/s	Water pressure kPa	Coil connection size BSP	Control panel	Valve and actuator kit
LPHW Heating	0.125	47.00	7.88	0.18	6.30	½"	CPG0-1/W/P/C	CASCWKT0200
	0.150	42.50	8.64	0.19	7.50			
	0.175	38.90	9.31	0.21	8.60			
	0.200	35.90	9.92	0.22	9.70			

LPHW coil, designed for LPHW 82/71°C, EAT -5°C, LAT 25 °C, coil construction copper tubes, aluminium fins, coil connections ½" BSP.
 Note: If no control panel is purchased the unit will be supplied with a main isolator.

	Technical Data			Heating and control options			
	Air volume m ³ /s	Maximum leaving air Temp °C	Maximum kW output	1ph - Electric heater		3ph - Electric heater	
				Electric heater	Control panel	Electric heater	Control panel
Electronic thyristor heating	0.125	34.60	6	EHCA02/6KW/1X1	CPG0-1/6KW-1/P/C	EHCA02/6KW/1X3	CPG0-1/6KW-3/P/C
	0.150	28.05					
	0.175	37.50	9	EHCA02/9KW/1X1	CPG0-1/9KW-1/P/C	EHCA02/9KW/1X3	CPG0-1/9KW-3/P/C
	0.200	32.18					

Air off temperature based upon entering air of -5°C. Power = Air volume x Constant Temperature rise. kW =m³/s x 1.21 x ΔT°C.
 Note: If no control panel is purchased the unit will be supplied with a main isolator.

Noise and silencer data

Fan voltage	Fan speed (RPM)	Sound spectrum dB re 10 ⁻¹² w PWL centre frequency (Hz)								Casting noise breakdown			
		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	34	27	36	29
90%	2916	66	58	48	41	33	38	33	36	29	22	33	26
80%	2592	55	50	43	34	27	30	31	31	24	17	27	19
70%	2268	50	52	29	26	16	30	19	32	25	18	24	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)								
CASVA0200/1200/STD	63	125	250	500	1k	2k	4k	8k	
Induct loss	-6	-8	-12	-19	-26	-32	-24	-21	

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

Colourfan Supply Acoustic

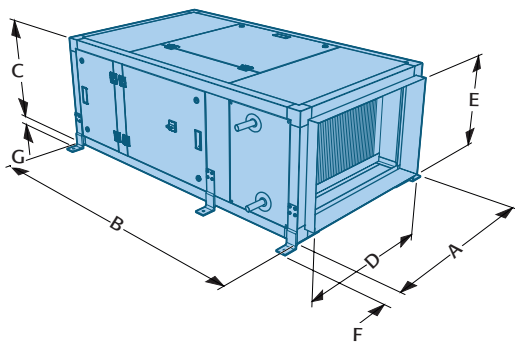
Unit and silencer configuration

Heating

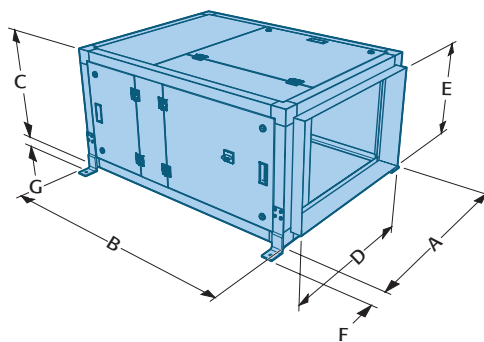
Controls

CAS0242-1 / P - **W** / EE / LT / G4 / **ISC**
W **E** RT F7 **CPSC**
 RB
 LB

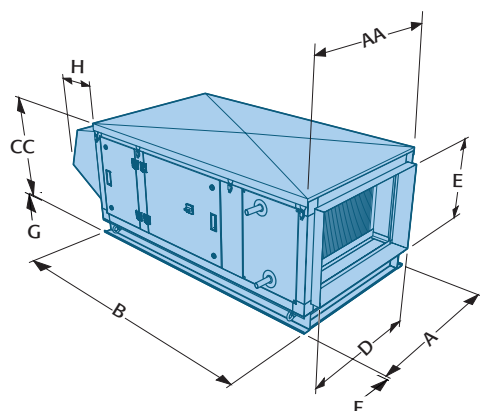
P Plantroom with heating



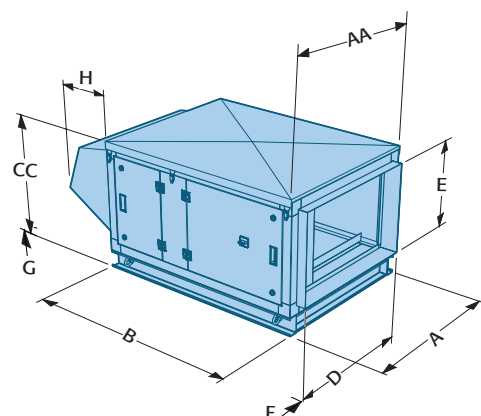
P Plantroom without heating



W Weatherproof with heating



W Weatherproof without heating

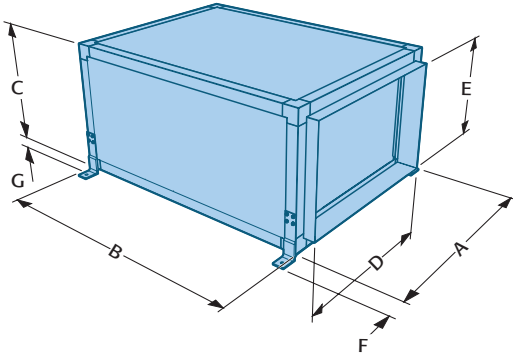


Unit type	Dimensions (mm)									Weight (kg)	Configuration options			
	A	AA	B	C	D	E	F	G	H		LT	LB	RT	RB
CAS2 Fan / Filter plantroom supply	650		1200	500	550	400	50	25		95	✓	✓	✓	✓
CAS2 Fan / Filter / Heater plantroom supply	650		1600	500	550	400	50	25		125	✓	✓	✓	✓
	A	AA	B	CC	D	E	F	G	H					
CAS2 Fan / Filter weatherproof supply	650	660	1200	525	550	400	50	25	300	105	✓		✓	
CAS2 fan / filter / Heater weatherproof supply	650	660	1600	525	550	400	50	25	300	120	✓		✓	

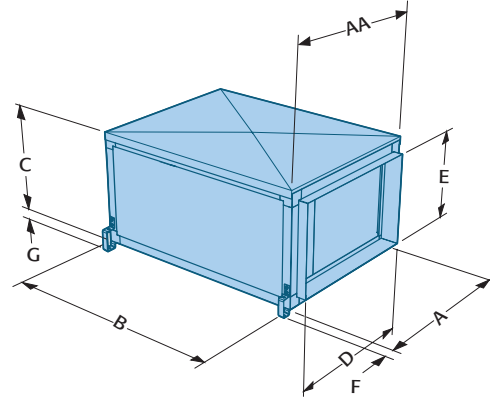
Note: Data for design guidance only. Detailed information is available upon request.

Silencer

Plantroom



Weatherproof



Unit type	Dimensions (mm)								Weight (kg)
	A	AA	B	C	D	E	F	G	
CAS2 Silencer plantroom	650		1300	500	550	400	50	25	80
CAS2 Silencer weatherproof	650	660	1300	525	550	400	50	25	90

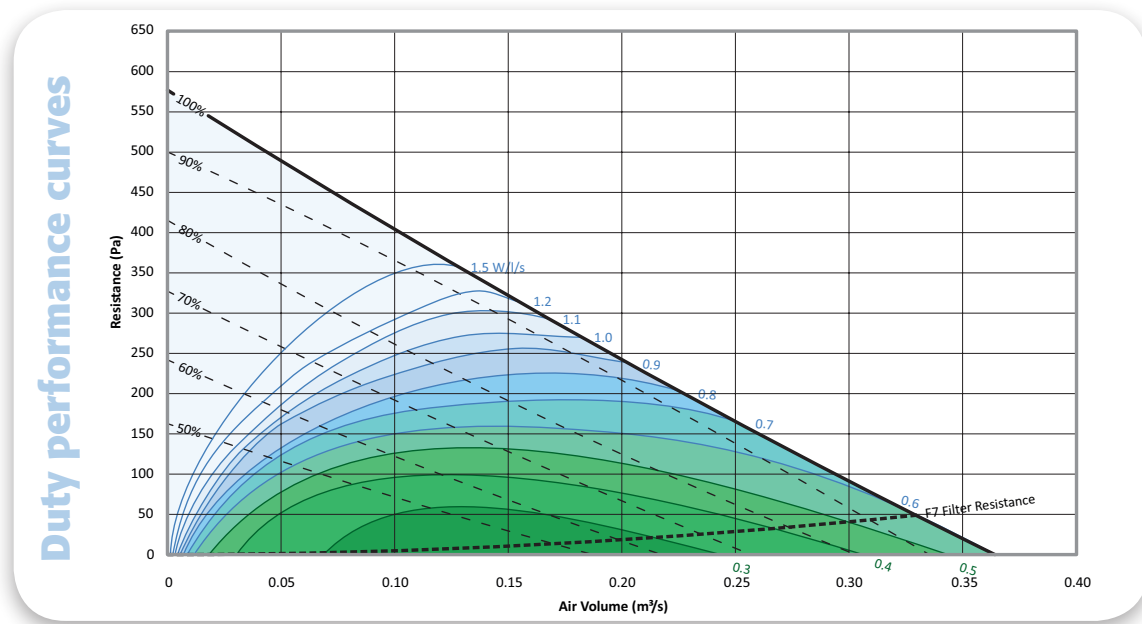
Colourfan Supply Acoustic

Selection data

Unit size 3 CAS0343-1

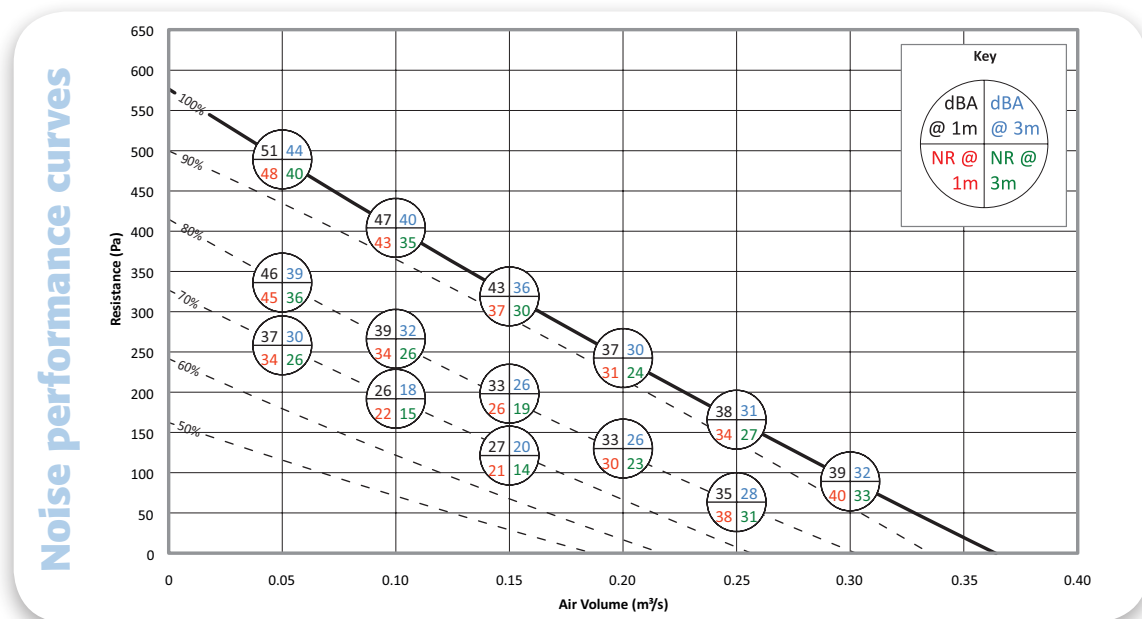
Performance

Size	Phase	Motor Size	Voltage	Fan Speed	Motor Full Load Current	Speed Control
CAS0343-1	1 Phase	0.23 kW	230 VAC	3290 rpm	1.2 A	EC



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

Notes: SFP figures quoted at voltages tested in accordance with BS EN ISO 5801:2017. The fan performance is calculated using standard G4 filters. Alternative F7 filters will add a maximum of 60 Pa. for specific duty information add the additional resistance to the total external resistance from the F7 curve above.



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

Heating and controls

Heating

Controls

CAS0343-1 / P - **W** / EE / LT / G4 / **ISC**
W **E** RT F7 **CPSC**
 RB
 LB

	Technical Data						Heating and control options	
	Air volume m ³ /s	Maximum leaving air Temp °C	Maximum kW output	Water flow rate l/s	Water pressure kPa	Coil connection size BSP	Control panel	Valve and actuator kit
LPHW Heating	0.125	35.60	6.15	0.14	3.00	1"	CPG0-1/W/P/C	CASCWKT0300
	0.150	34.50	7.17	0.16	3.00			
	0.175	33.50	8.17	0.18	3.00			
	0.200	32.70	9.14	0.20	3.00			
	0.225	32.00	10.08	0.22	3.10			

LPHW coil, designed for LPHW 82/71°C, EAT -5°C, LAT 25 °C, coil construction copper tubes, aluminium fins, coil connections 1" BSP.
 Note: If no control panel is purchased the unit will be supplied with a main isolator.

	Technical Data			Heating and control options			
	Air volume m ³ /s	Maximum leaving air Temp °C	Maximum kW output	1ph - Electric heater		3ph - Electric heater	
				Electric heater	Control panel	Electric heater	Control panel
Electronic thyristor heating	0.125	34.60	6	EHCA03/6KW/1X1	CPG0-1/6KW-1/P/C	EHCA03/6KW/1X3	CPG0-1/6KW-3P/C
	0.150	28.05					
	0.175	37.50	9	EHCA01/4KW/1X1	CPG0-1/6KW-1/P/C	EHCA01/4KW/1X3	CPG0-1/9KW-3P/C
	0.200	35.19					
	0.225	28.05					

Air off temperature based upon entering air of -5°C. Power = Air volume x Constant Temperature rise. kW = m³/s x 1.21 x ΔT°C.
 Note: If no control panel is purchased the unit will be supplied with a main isolator.

Noise and silencer data

Fan voltage	Fan speed (RPM)	Sound spectrum dB re 10 ⁻¹² w PWL centre frequency (Hz)								Casting noise breakdown			
		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	31	24	37	30
90%	2961	67	62	51	44	38	40	36	38	31	24	36	29
80%	2632	69	57	47	40	38	35	32	33	26	19	33	26
70%	2303	61	51	40	34	25	27	25	29	22	15	26	18

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)							
CASVA0300/1200/STD	63	125	250	500	1k	2k	4k	8k
Induct loss	-6	-8	-12	-19	-26	-32	-24	-21

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

Note: Data for design guidance only. Detailed information is available upon request.

SIZE 3 - CAS0343-1

Colourfan Supply Acoustic

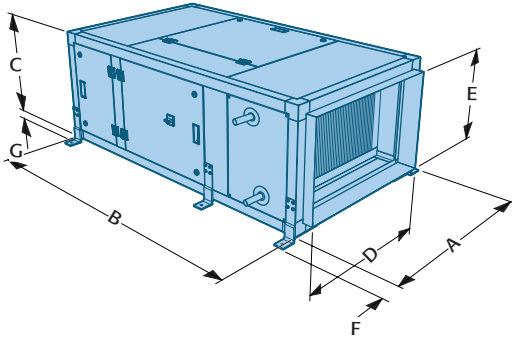
Unit and silencer configuration

Heating

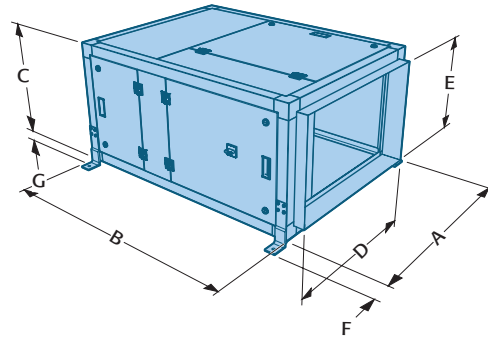
Controls

CAS0343-1 / P - **W** / EE / LT / G4 / **ISC**
W **E** RT F7 **CPSC**
 RB
 LB

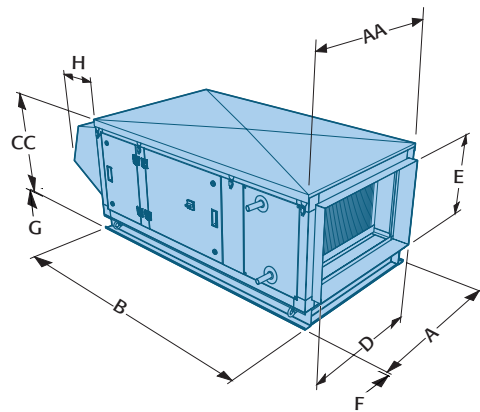
P Plantroom with heating



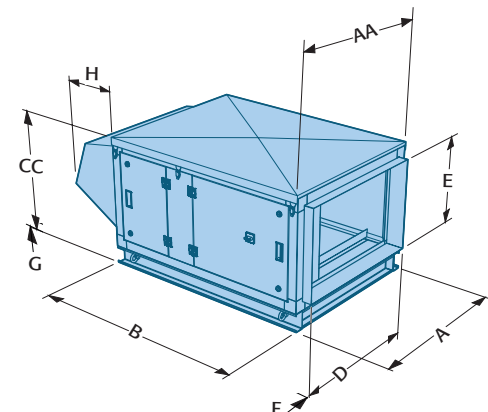
P Plantroom without heating



W Weatherproof with heating



W Weatherproof without heating

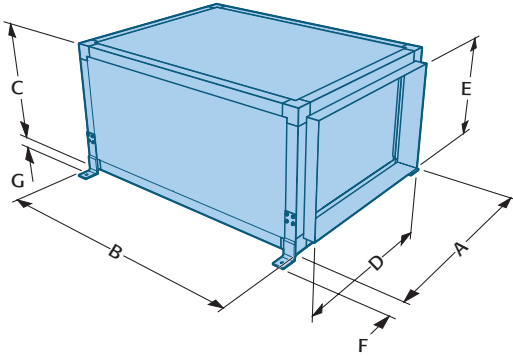


Unit type	Dimensions (mm)									Weight (kg)	Configuration options			
	A	AA	B	C	D	E	F	G	H		LT	LB	RT	RB
CAS3 Fan / Filter plantroom supply	700		1200	550	600	450	50	25		100	✓	✓	✓	✓
CAS3 Fan / Filter / Heater plantroom supply	700		1600	550	600	450	50	25		135	✓	✓	✓	✓
	A	AA	B	CC	D	E	F	G	H					
CAS3 Fan / Filter weatherproof supply	700	710	1200	575	600	450	50	25	350	115	✓		✓	
CAS3 fan / filter / Heater weatherproof supply	700	710	1600	575	600	450	50	25	350	155	✓		✓	

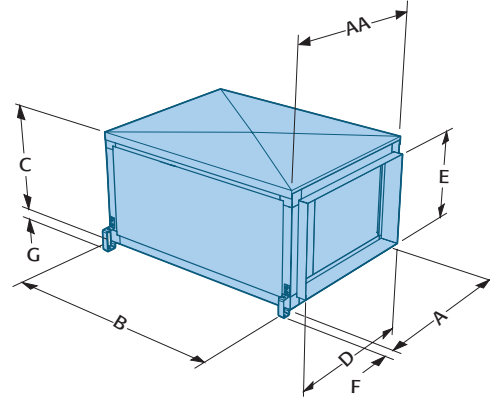
Note: Data for design guidance only. Detailed information is available upon request.

Silencer

Plantroom



Weatherproof



Unit type	Dimensions (mm)								Weight (kg)
	A	AA	B	C	D	E	F	G	
CAS3 Silencer plantroom	700		1300	550	600	450	50	25	90
CAS3 Silencer weatherproof	700	710	1300	575	600	450	50	25	100

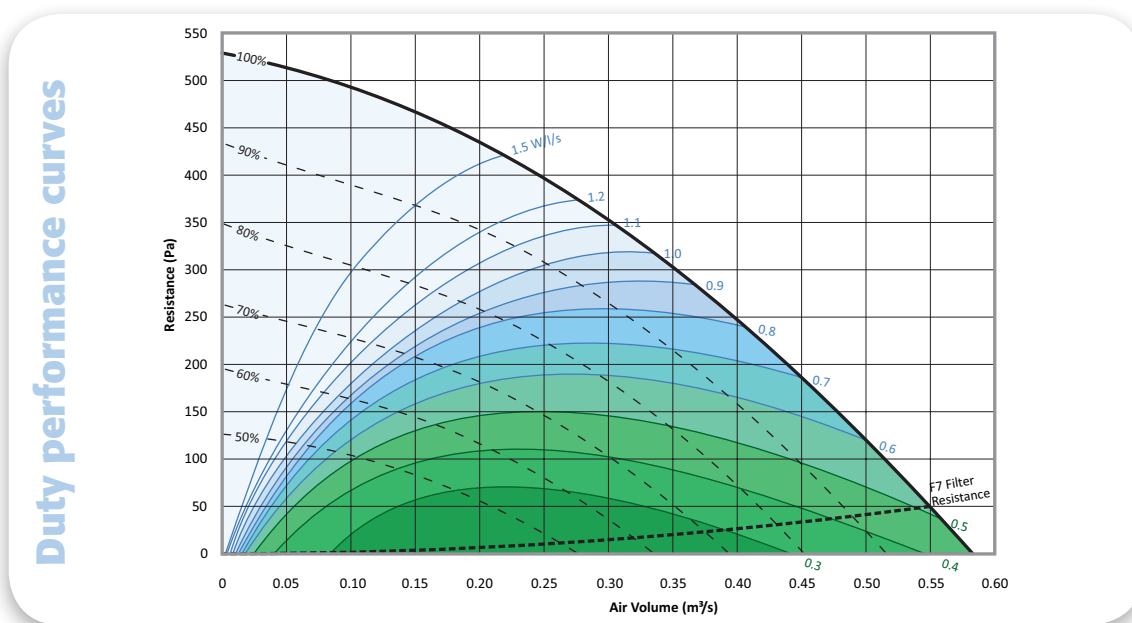
Colourfan Supply Acoustic

Selection data

Unit size 4 CAS0444-1

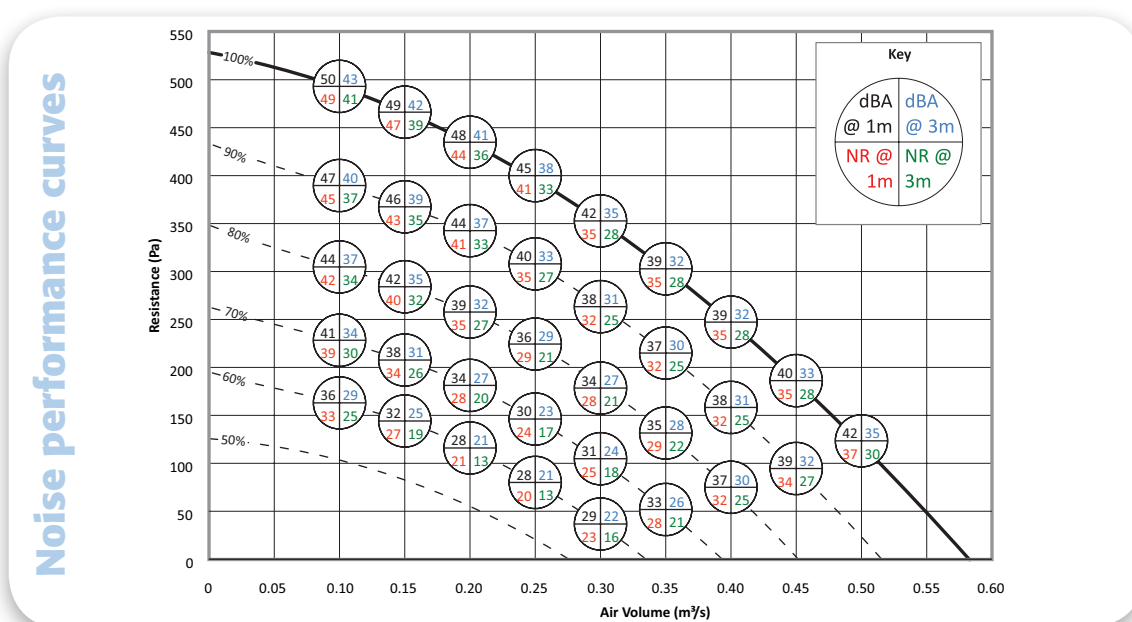
Performance

Size	Phase	Motor Size	Voltage	Fan Speed	Motor Full Load Current	Speed Control
CAS0444-1	1 Phase	0.32 kW	230 VAC	2270 rpm	1.2 A	EC



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

Notes: SFP figures quoted at voltages tested in accordance with BS EN ISO 5801:2017. The fan performance is calculated using standard G4 filters. Alternative F7 filters will add a maximum of 60 Pa. For specific duty information add the additional resistance to the total external resistance from the F7 curve above.



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. Detailed information is available upon request.

Heating and controls

Heating

Controls

CAS0444-1 / P - **W** / EE / LT / G4 / **ISC**
W **E** RT F7 **CPSC**
 RB
 LB

	Technical Data						Heating and control options	
	Air volume m ³ /s	Maximum leaving air Temp °C	Maximum kW output	Water flow rate l/s	Water pressure kPa	Coil connection size BSP	Control panel	Valve and actuator kit
LPHW Heating	0.200	47.40	12.69	0.28	4.40	1"	CPG0-1/W/P/C	CASCWKT0400
	0.250	41.70	14.16	0.32	5.40			
	0.300	37.40	15.41	0.34	6.20			
	0.350	33.90	16.51	0.37	7.00			
	0.400	31.10	17.50	0.39	7.80			

LPHW coil, designed for LPHW 82/71°C, EAT -5°C, LAT 25 °C, coil construction copper tubes, aluminium fins, coil connections 1" BSP.
 Note: If no control panel is purchased the unit will be supplied with a main isolator.

	Technical Data			Heating and control options			
	Air volume m ³ /s	Maximum leaving air Temp °C	Maximum kW output	1ph - Electric heater		3ph - Electric heater	
				Electric heater	Control panel	Electric heater	Control panel
Electronic thyristor heating	0.200	32.19	9	EHCA04/9KW/1X1	CPG0-1/9KW-1/P/C	EHCA04/9KW/1X3	CPG0-1/9KW-3P/C
	0.250	24.70					
	0.300	42.58	18	N/A	N/A	EHCA04/18KW/1X3	CPG0-1/18KW-3P/C
	0.350	27.50					
	0.400	32.19					

Air off temperature based upon entering air of -5°C. Power = Air volume x Constant Temperature rise. kW = m³/s x 1.21 x ΔT°C.
 Note: If no control panel is purchased the unit will be supplied with a main isolator.

Noise and silencer data

Fan voltage	Fan speed (RPM)	Sound spectrum dB re 10 ⁻¹² w PWL centre frequency (Hz)								Casting noise breakdown			
		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	35	28	42	35
90%	2043	73	67	57	50	40	43	38	36	35	27	40	33
80%	1816	68	62	53	46	37	39	34	32	29	21	36	29
70%	1589	67	61	51	42	33	35	29	26	28	20	34	27
60%	1362	68	60	47	38	29	31	24	20	27	19	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)							
CASVA0400/1200/STD	63	125	250	500	1k	2k	4k	8k
Induct loss	-6	-8	-12	-19	-26	-32	-24	-21

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

Note: Data for design guidance only. Detailed information is available upon request.

SIZE 4 - CAS0444-1

Colourfan Supply Acoustic

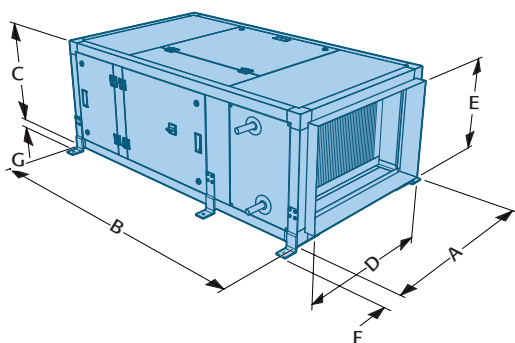
Unit and silencer configuration

Heating

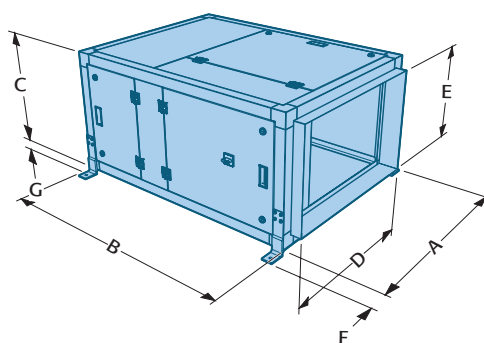
Controls

CAS0444-1 / P - **W** / EE / LT / G4 / **ISC**
W **E** RT F7 **CPSC**
 RB
 LB

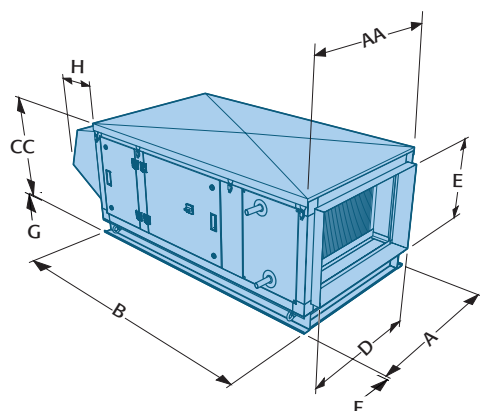
P Plantroom with heating



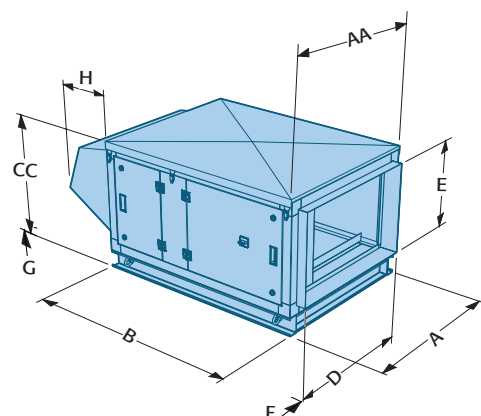
P Plantroom without heating



W Weatherproof with heating



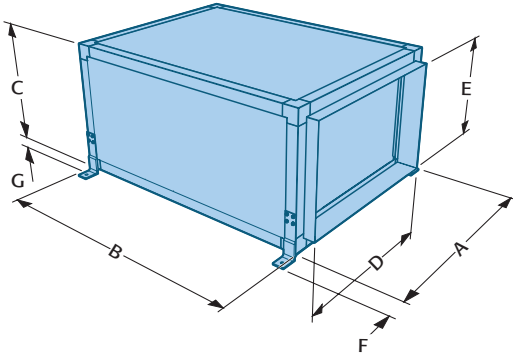
W Weatherproof without heating



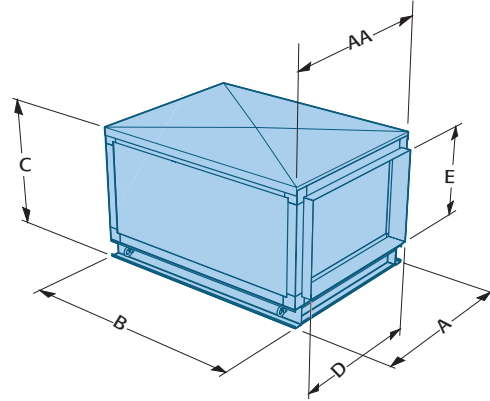
Unit type	Dimensions (mm)									Weight (kg)	Configuration options			
	A	AA	B	C	D	E	F	G	H		LT	LB	RT	RB
CAS4 Fan / Filter plantroom supply	900		1200	600	800	500	50	25		115	✓	✓	✓	✓
CAS4 Fan / Filter / Heater plantroom supply	900		1600	600	800	500	50	25		160	✓	✓	✓	✓
	A	AA	B	CC	D	E	F	G	H					
CAS4 Fan / Filter weatherproof supply	900	910	1200	725	800	500			300	150	✓		✓	
CAS4 fan / filter / Heater weatherproof supply	900	910	1600	725	800	500			300	200	✓		✓	

Silencer

Plantroom



Weatherproof



Unit type	Dimensions (mm)								Weight (kg)
	A	AA	B	C	D	E	F	G	
CAS4 Silencer plantroom	900		1300	600	800	500	50	25	105
CAS4 Silencer weatherproof	900	910	1300	725	800	500			135

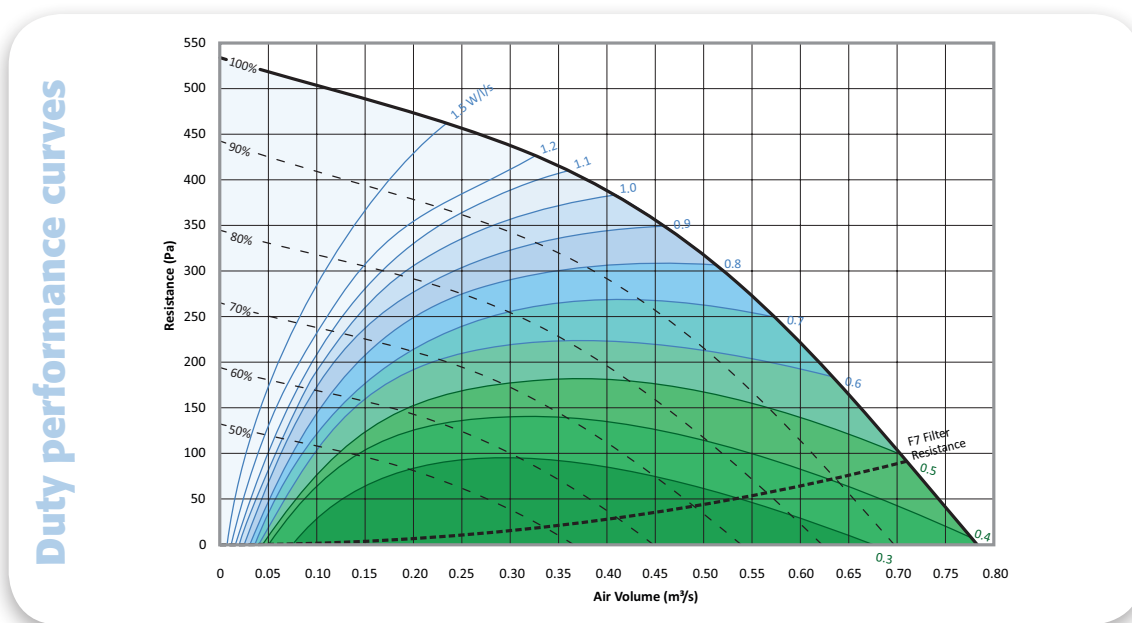
Colourfan Supply Acoustic

Selection data

Unit size 5 CAS0545-1

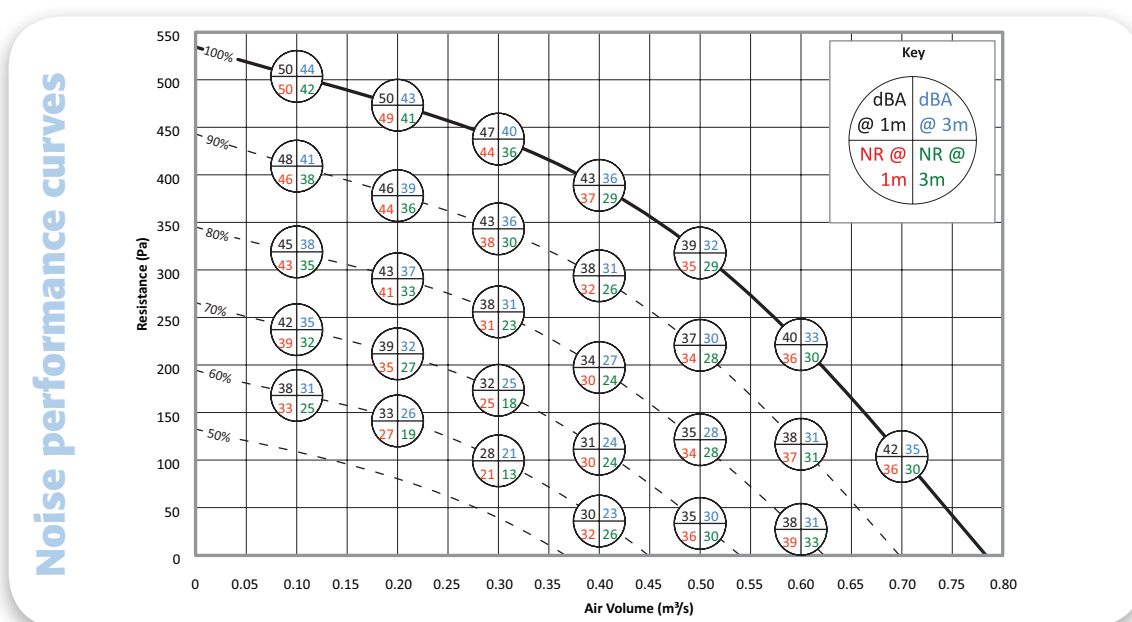
Performance

Size	Phase	Motor Size	Voltage	Fan Speed	Motor Full Load Current	Speed Control
CAS0545-1	1 Phase	0.4 kW	230 VAC	2010 rpm	1.5 A	EC



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

Notes: SFP figures quoted at voltages tested in accordance with BS EN ISO 5801:2017. The fan performance is calculated using standard G4 filters. Alternative F7 filters will add a maximum of 60 Pa. For specific duty information add the additional resistance to the total external resistance from the F7 curve above.



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

Heating and controls

Heating

Controls

CAS0545-1 / P - **W** / EE / LT / G4 / **ISC**
W **E** RT F7 **CPSC**
 RB
 LB

	Technical Data						Heating and control options	
	Air volume m ³ /s	Maximum leaving air Temp °C	Maximum kW output	Water flow rate l/s	Water pressure kPa	Coil connection size BSP	Control panel	Valve and actuator kit
LPHW Heating	0.300	34.30	14.30	0.32	3.00	1¼"	CPG0-1/W/P/C	CASCWKT0500
	0.350	33.40	16.28	0.36	3.00			
	0.400	32.60	18.22	0.41	3.00			
	0.450	31.90	20.10	0.45	3.00			
	0.500	31.20	21.92	0.49	3.00			

LPHW coil, designed for LPHW 82/71°C, EAT -5°C, LAT 25 °C, coil construction copper tubes, aluminium fins, coil connections ¼" BSP.
 Note: If no control panel is purchased the unit will be supplied with a main isolator.

	Technical Data			Heating and control options	
	Air volume m ³ /s	Maximum leaving air Temp °C	Maximum kW output	3ph - Electric heater	
				Electric heater	Control panel
Electronic thyristor heating	0.300	24.05	12	EHCA05/12KW/1X3	CPG0-1/12KW-3P/C
	0.350	32.50	18		
	0.400	32.19			
	0.450	28.05		EHCA05/18KW/1X3	CPG0-1/18KW-3P/C
	0.500	24.05			

Air off temperature based upon entering air of -5°C. Power = Air volume x Constant Temperature rise. kW =m³/s x 1.21 x ΔT°C.
 Note: If no control panel is purchased the unit will be supplied with a main isolator.

Noise and silencer data

Fan voltage	Fan speed (RPM)	Sound spectrum dB re 10 ⁻¹² w PWL centre frequency (Hz)								Casting noise breakdown			
		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	36	30	40	33
90%	1809	68	61	52	48	40	43	38	42	34	28	37	30
80%	1608	66	59	49	45	36	40	34	38	30	24	34	27
70%	1407	63	56	46	41	33	36	30	35	28	21	31	24
60%	1206	64	56	44	38	28	31	26	23	22	14	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)							
CASVA0500/1200/STD	63	125	250	500	1k	2k	4k	8k
Induct loss	-6	-8	-12	-19	-26	-32	-24	-21

Note: Each silencer will add a maximum of 25 Pa to the external resistance.

Note: Data for design guidance only. Detailed information is available upon request.

SIZE 5 - CAS0545-1

Colourfan Supply Acoustic

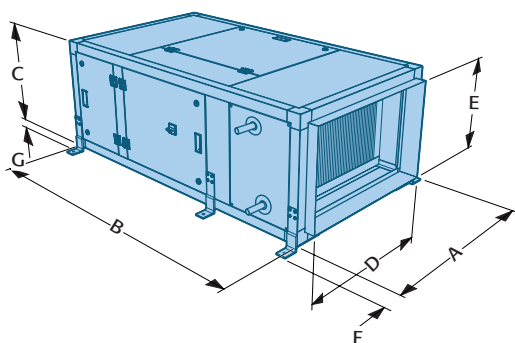
Unit and silencer configuration

Heating

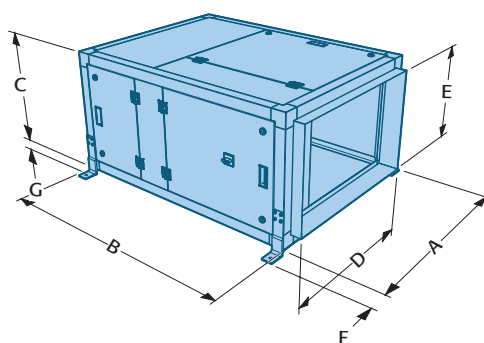
Controls

CAS0545-1 / P - **W** / EE / LT / G4 / **ISC**
W **E** RT F7 **CPSC**
 RB
 LB

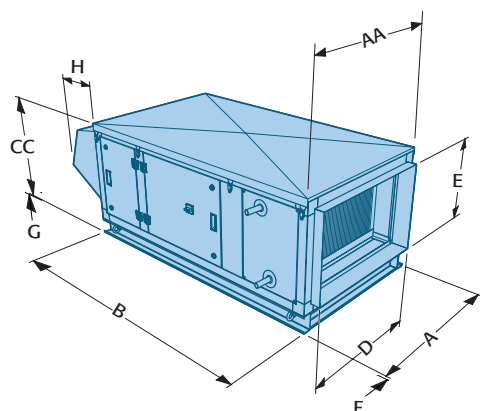
P Plantroom with heating



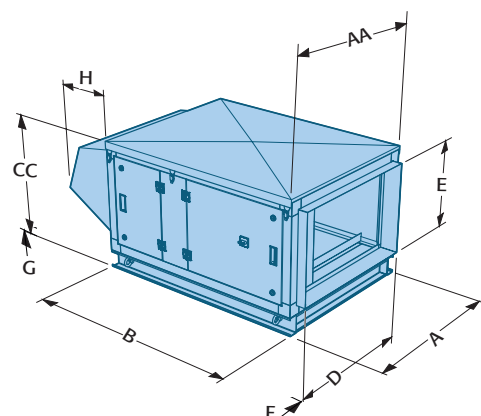
P Plantroom without heating



W Weatherproof with heating



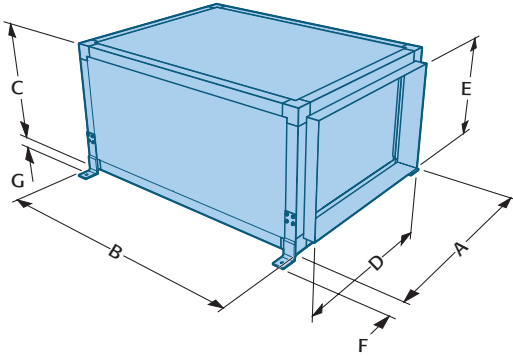
W Weatherproof without heating



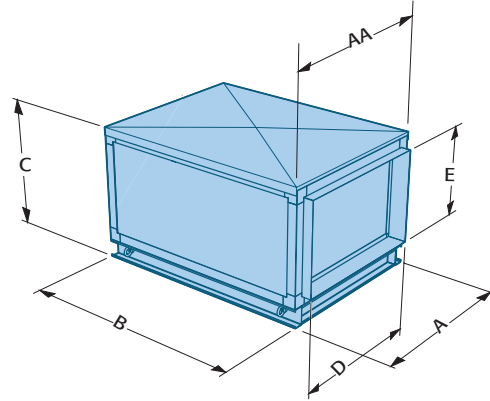
Unit type	Dimensions (mm)									Weight (kg)	Configuration options			
	A	AA	B	C	D	E	F	G	H		LT	LB	RT	RB
CAS5 Fan / Filter plantroom supply	1000		1200	650	900	550	75	25		130	✓	✓	✓	✓
CAS5 Fan / Filter / Heater plantroom supply	1000		1600	650	900	550	75	25		180	✓	✓	✓	✓
	A	AA	B	CC	D	E	F	G	H					
CAS5 Fan / Filter weatherproof supply	1000	1150	1200	825	900	550			300	170	✓		✓	
CAS5 fan / filter / Heater weatherproof supply	1000	1150	1600	825	900	550			300	230	✓		✓	

Silencer

Plantroom



Weatherproof



Unit type	Dimensions (mm)								Weight (kg)
	A	AA	B	C	D	E	F	G	
CAS5 Silencer plantroom	1000		1300	650	900	550	75	25	120
CAS5 Silencer weatherproof	1000	1150	1300	825	900	550			155

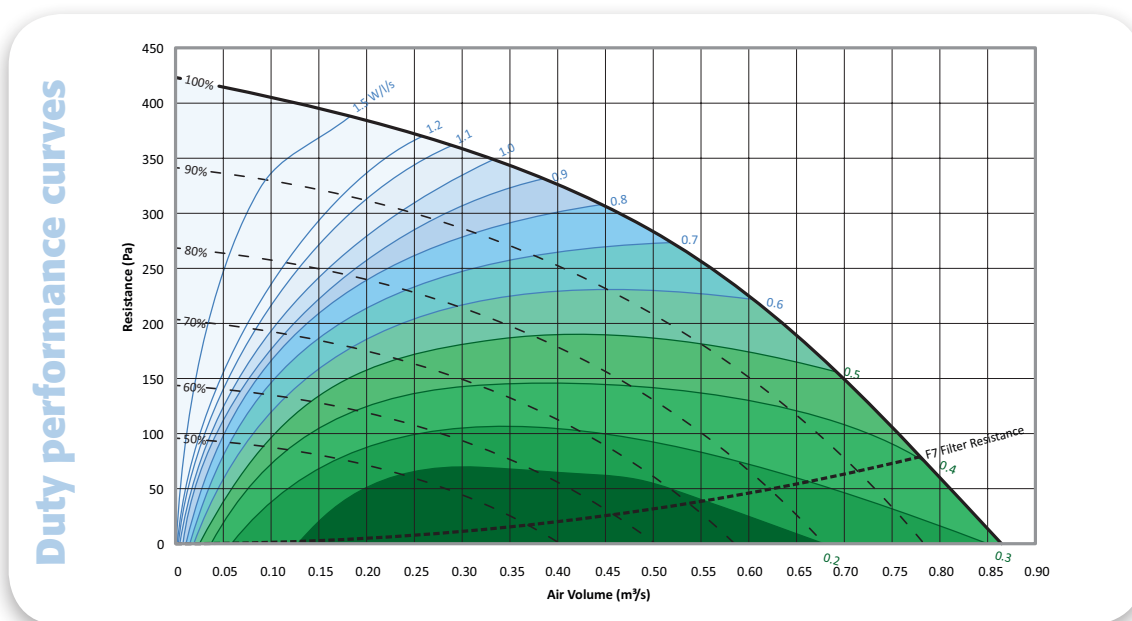
Colourfan Supply Acoustic

Selection data

Unit size 6 CAS0646-1

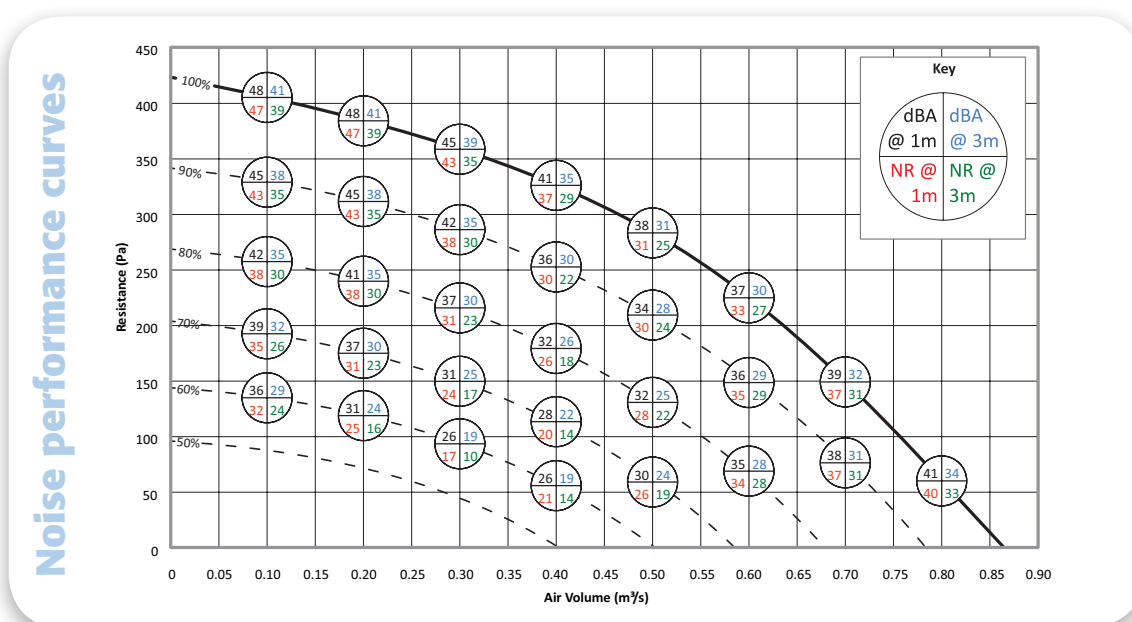
Performance

Size	Phase	Motor Size	Voltage	Fan Speed	Motor Full Load Current	Speed Control
CAS0646-1	1 Phase	0.35 kW	230 VAC	1590 rpm	1.3 A	EC



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

Notes: SFP figures quoted at voltages tested in accordance with BS EN ISO 5801:2017. The fan performance is calculated using standard G4 filters. Alternative F7 filters will add a maximum of 60 Pa. For specific duty information add the additional resistance to the total external resistance from the F7 curve above.



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

Heating and controls

Heating
CAS0646-1 / P - W / EE / LT / G4 / ISC
W E RT F7 CPSC
RB LB

Controls

	Technical Data					Heating and control options		
	Air volume m ³ /s	Maximum leaving air Temp °C	Maximum kW output	Water flow rate l/s	Water pressure kPa	Coil connection size BSP	Control panel	Valve and actuator kit
LPHW Heating	0.300	31.50	13.27	0.30	3.00	1¼"	CPG0-1/W/P/C	CASCWKT0600
	0.350	30.60	15.11	0.34	3.30			
	0.400	29.90	16.90	0.38	3.90			
	0.450	29.20	18.65	0.42	4.60			
	0.500	28.60	20.35	0.45	5.40			
	0.550	28.00	22.01	0.49	6.10			
	0.600	27.50	23.62	0.53	6.90			

LPHW coil, designed for LPHW 82/71°C, EAT -5°C, LAT 25 °C, coil construction copper tubes, aluminium fins, coil connections 1¼" BSP.
 Note: If no control panel is purchased the unit will be supplied with a main isolator.

	Technical Data			Heating and control options	
	Air volume m ³ /s	Maximum leaving air Temp °C	Maximum kW output	3ph - Electric heater	
				Electric heater	Control panel
Electronic thyristor heating	0.300	28.05	12	EHCA06/12KW/1X3	CPG0-1/12KW-3P/C
	0.350	37.50	18	EHCA06/18KW/1X3	CPG0-1/18KW-3P/C
	0.400	32.19			
	0.450	28.05			
	0.500	24.70	24	EHCA06/24KW/1X3	CPG0-1/24KW-3P/C
	0.550	31.06			
	0.600	28.05			

Air off temperature based upon entering air of -5°C. Power = Air volume x Constant Temperature rise. kW =m³/s x 1.21 x ΔT°C.
 Note: If no control panel is purchased the unit will be supplied with a main isolator.

Noise and silencer data

Fan voltage	Fan speed (RPM)	Sound spectrum dB re 10 ⁻¹² w PWL centre frequency (Hz)								Casting noise breakdown			
		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	35	29	38	31
90%	1431	66	60	50	46	38	39	33	40	32	26	34	28
80%	1272	64	58	47	42	34	36	31	32	25	18	31	25
70%	1113	63	54	45	39	30	32	29	23	20	14	28	22
60%	954	66	54	44	35	27	28	20	14	20	12	28	21

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)							
CASVA0600/1200/STD	63	125	250	500	1k	2k	4k	8k
Induct loss	-6	-8	-12	-19	-26	-32	-24	-21

Note: Each silencer will add a maximum of 22 Pa to the external resistance.

Note: Data for design guidance only. Detailed information is available upon request.

SIZE 6 - CAS0646-1

Colourfan Supply Acoustic

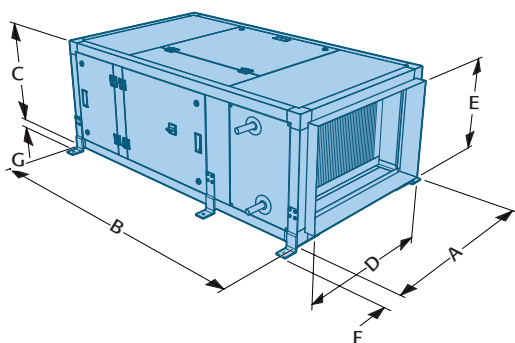
Unit and silencer configuration

Heating

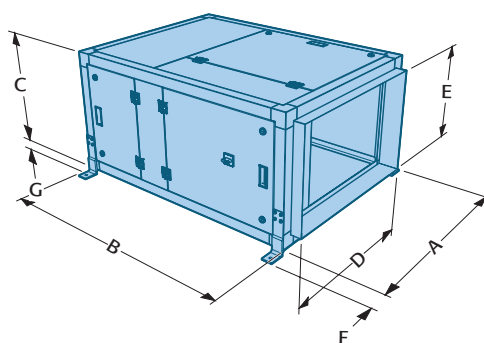
Controls

CAS0646-1 / P - **W** / EE / LT / G4 / **ISC**
 W **E** RT F7 **CPSC**
 RB
 LB

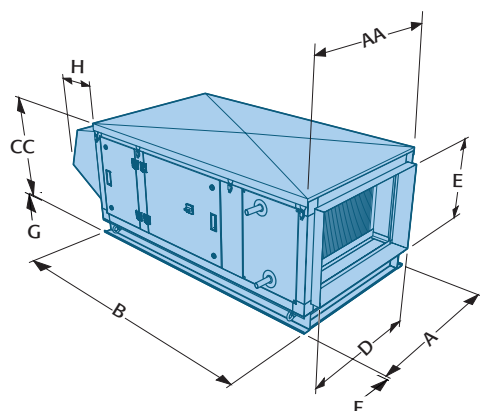
P Plantroom with heating



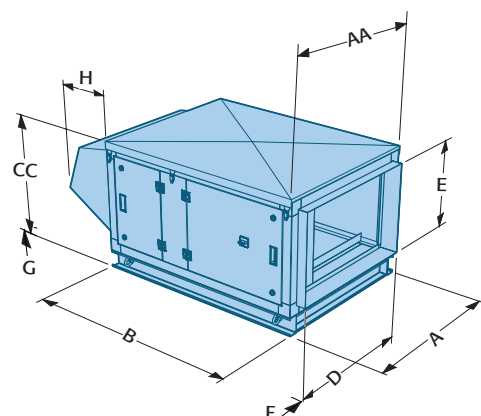
P Plantroom without heating



W Weatherproof with heating



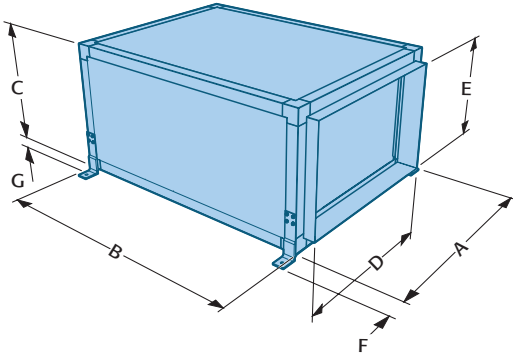
W Weatherproof without heating



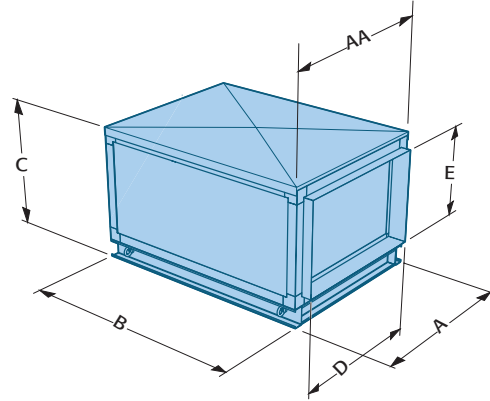
Unit type	Dimensions (mm)									Weight (kg)	Configuration options			
	A	AA	B	C	D	E	F	G	H		LT	LB	RT	RB
CAS6 Fan / Filter plantroom supply	1000		1200	730	900	630	75	25		135	✓	✓	✓	✓
CAS6 Fan / Filter / Heater plantroom supply	1000		1600	730	900	630	75	25		190	✓	✓	✓	✓
	A	AA	B	CC	D	E	F	G	H					
CAS6 Fan / Filter weatherproof supply	1000	1150	1200	905	900	630			300	180	✓		✓	
CAS6 fan / filter / Heater weatherproof supply	1000	1150	1600	905	900	630			300	240	✓		✓	

Silencer

Plantroom



Weatherproof



Unit type	Dimensions (mm)								Weight (kg)
	A	AA	B	C	D	E	F	G	
CAS6 Silencer plantroom	1000		1300	730	900	630	75	25	125
CAS6 Silencer weatherproof	1000	1150	1300	905	900	630			160

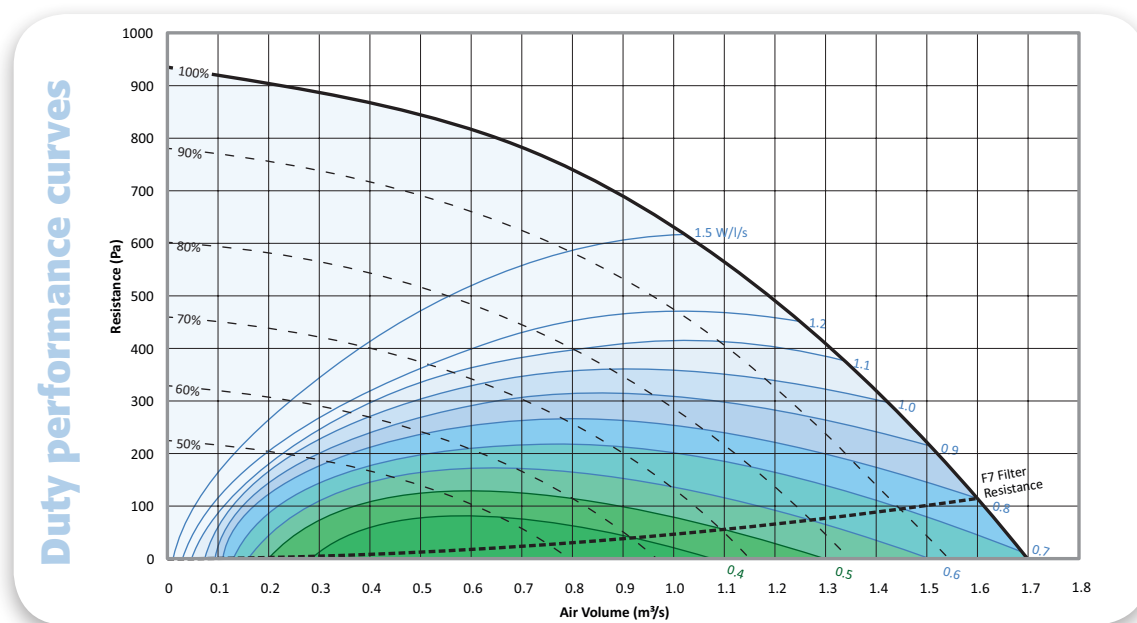
Colourfan Supply Acoustic

Selection data

Unit size 7 CAS0747-3

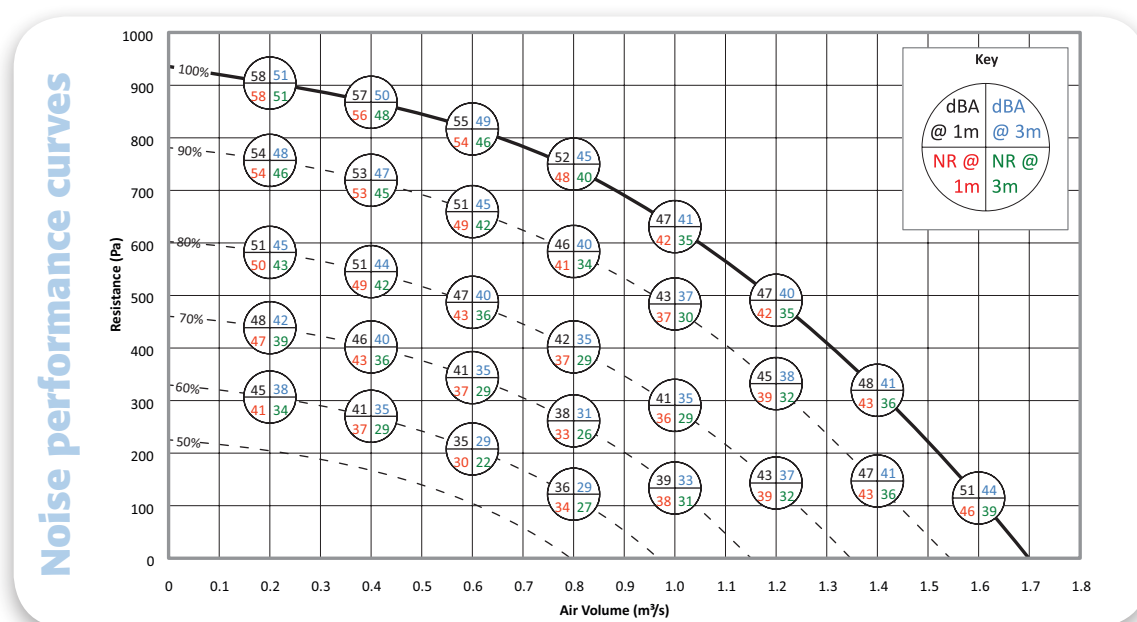
Performance

Size	Phase	Motor Size	Voltage	Fan Speed	Motor Full Load Current	Speed Control
CAS0747-3	3 Phase	1.4 kW	400 VAC	2100 rpm	1.9 A	EC



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

Notes: SFP figures quoted at voltages tested in accordance with BS EN ISO 5801:2017. The fan performance is calculated using standard G4 filters. Alternative F7 filters will add a maximum of 60 Pa. For specific duty information add the additional resistance to the total external resistance from the F7 curve above.



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

Heating and controls

Heating

Controls

CAS0747-3 / P - **W** / EE / LT / G4 / **ISC**
W **E** RT F7 **CPSC**
 RB
 LB

	Technical Data						Heating and control options	
	Air volume m ³ /s	Maximum leaving air Temp °C	Maximum kW output	Water flow rate l/s	Water pressure kPa	Coil connection size BSP	Control panel	Valve and actuator kit
LPHW Heating	0.400	56.90	29.98	0.67	3.00	1½"	CPG0-3/W/P/C	CASCWKT0700
	0.500	51.20	34.07	0.76	3.30			
	0.600	46.70	37.58	0.84	3.90			
	0.700	43.00	40.67	0.91	4.50			
	0.800	39.80	43.45	0.97	5.00			
	0.900	37.20	45.99	1.02	5.50			
	1.000	34.90	48.33	1.08	5.90			

LPHW coil, designed for LPHW 82/71°C, EAT -5°C, LAT 25 °C, coil construction copper tubes, aluminium fins, coil connections 1½" BSP.
 Note: If no control panel is purchased the unit will be supplied with a main isolator.

	Technical Data			Heating and control options	
	Air volume m ³ /s	Maximum leaving air Temp °C	Maximum kW output	3ph - Electric heater	
				Electric heater	Control panel
Electronic thyristor heating	0.400	32.18	18	EHCA07/18KW/1X3	CPG0-3/18KW-3/P/C
	0.500	24.70			
	0.600	28.05	24	EHCA07/24KW/1X3	CPG0-3/24KW-3/P/C
	0.700	23.33			
	0.800	28.05	32	EHCA07/32KW/1X3	CPG0-3/32KW-3/P/C
	0.900	24.38			
	1.000	34.66	48	EHCA07/48KW/1X3	CPG0-3/48KW-3/P/C

Air off temperature based upon entering air of -5°C. Power = Air volume x Constant Temperature rise. kW =m³/s x 1.21 x ΔT°C.
 Note: If no control panel is purchased the unit will be supplied with a main isolator.

Noise and silencer data

Fan voltage	Fan speed (RPM)	Sound spectrum dB re 10 ⁻¹² w PWL centre frequency (Hz)								Casting noise breakdown			
		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	41	34	46	40
90%	1890	74	68	63	57	49	48	44	45	38	31	44	37
80%	1680	72	67	58	54	46	44	40	43	35	28	41	34
70%	1470	70	65	55	49	41	40	36	40	32	25	38	31
60%	1260	71	64	54	46	37	37	32	34	31	23	36	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)							
CASVA0700/1200/STD	63	125	250	500	1k	2k	4k	8k
Induct loss	-6	-8	-12	-19	-26	-32	-24	-21

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

Note: Data for design guidance only. Detailed information is available upon request.

SIZE 7 - CAS0747-3

Colourfan Supply Acoustic

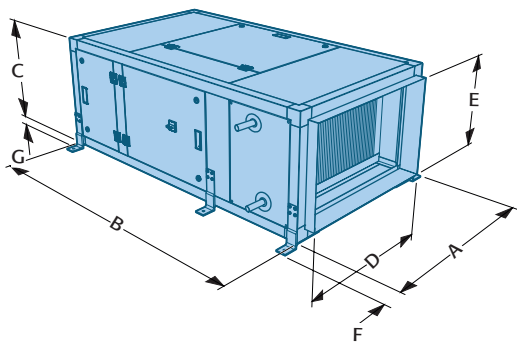
Unit and silencer configuration

Heating

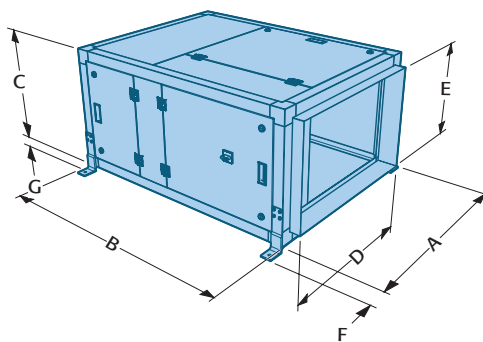
Controls

CAS0747-3 / P - **W** / EE / LT / G4 / **ISC**
W **E** RT F7 **CPSC**
 RB
 LB

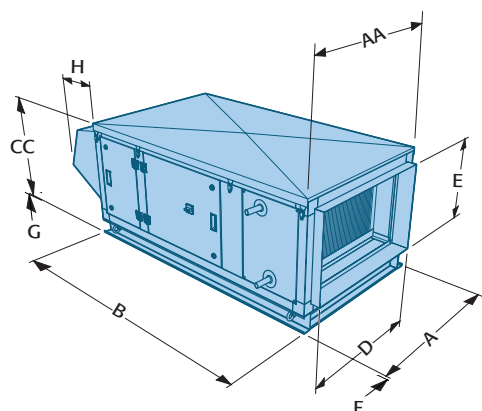
P Plantroom with heating



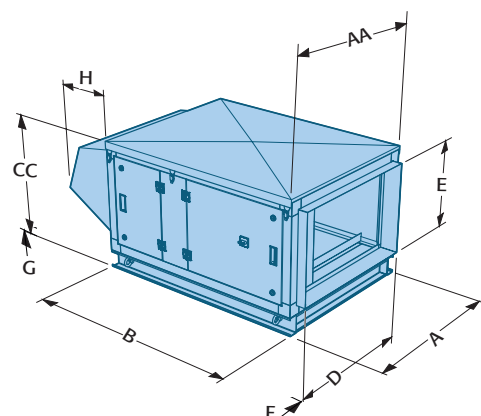
P Plantroom without heating



W Weatherproof with heating



W Weatherproof without heating

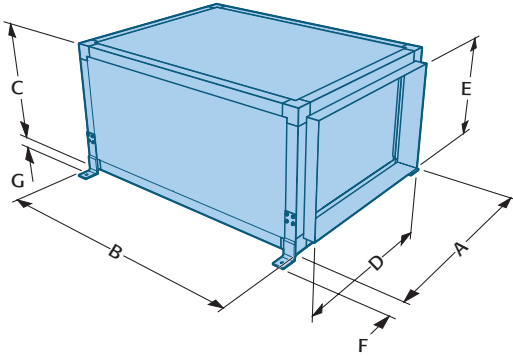


Unit type	Dimensions (mm)									Weight (kg)	Configuration options			
	A	AA	B	C	D	E	F	G	H		LT	LB	RT	RB
CAS7 Fan / Filter plantroom supply	1250		1250	820	1150	720	75	25		165	✓	✓	✓	✓
CAS7 Fan / Filter / Heater plantroom supply	1250		1700	820	1150	720	75	25		240	✓	✓	✓	✓
	A	AA	B	CC	D	E	F	G	H					
CAS7 Fan / Filter weatherproof supply	1250	1400	1250	995	1150	720			400	220	✓		✓	
CAS7 fan / filter / Heater weatherproof supply	1250	1400	1700	995	1150	720			400	300	✓		✓	

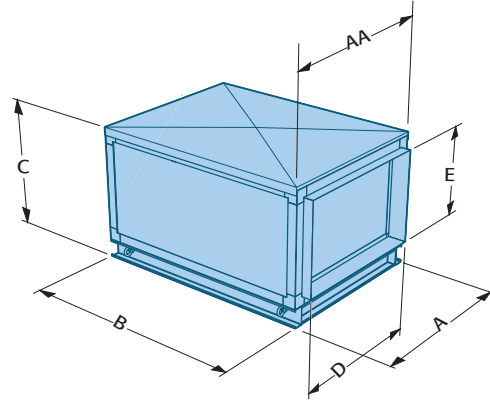
Note: Data for design guidance only. Detailed information is available upon request.

Silencer

Plantroom



Weatherproof



Unit type	Dimensions (mm)								Weight (kg)
	A	AA	B	C	D	E	F	G	
CAS7 Silencer plantroom	1250		1300	820	1150	720	75	25	160
CAS7 Silencer weatherproof	1250	1400	1300	995	1150	720			200

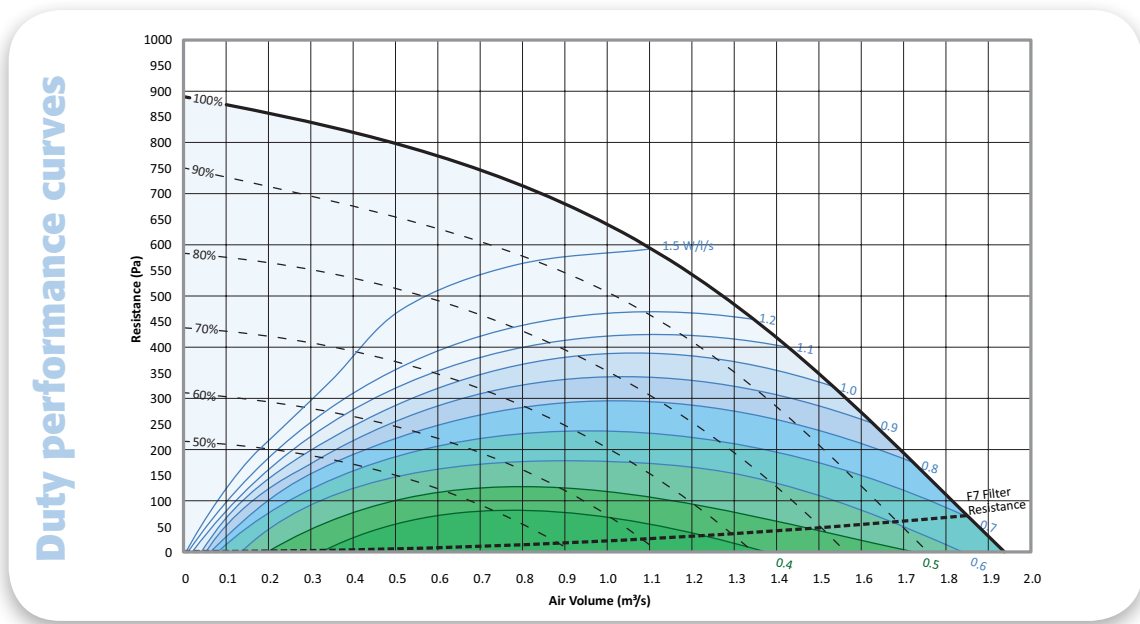
Colourfan Supply Acoustic

Selection data

Unit size 8 CAS0848-3

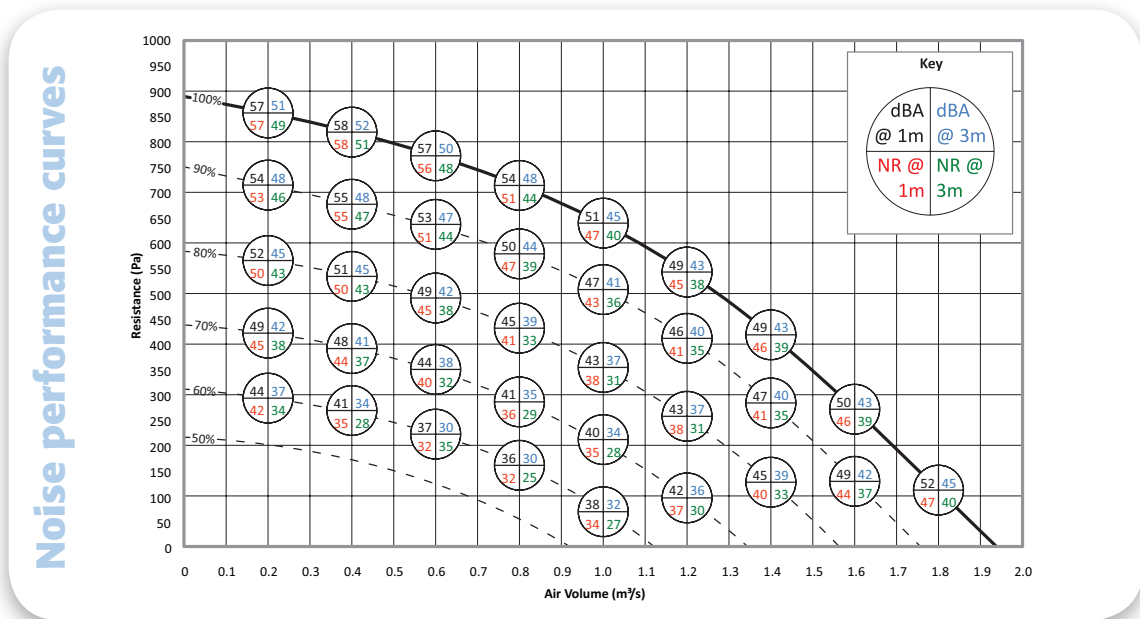
Performance

Size	Phase	Motor Size	Voltage	Fan Speed	Motor Full Load Current	Speed Control
CAS0848-3	3 Phase	1.45 kW	400 VAC	1800 rpm	2 A	EC



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

Notes: SFP figures quoted at voltages tested in accordance with BS EN ISO 5801:2017. The fan performance is calculated using standard G4 filters. Alternative F7 filters will add a maximum of 60 Pa. For specific duty information add the additional resistance to the total external resistance from the F7 curve above.



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

Heating and controls

Heating
CAS0848-3 / P - W / EE / LT / G4 / ISC
W E RT F7 CPSC
RB LB

Controls

	Technical Data						Heating and control options	
	Air volume m ³ /s	Maximum leaving air Temp °C	Maximum kW output	Water flow rate l/s	Water pressure kPa	Coil connection size BSP	Control panel	Valve and actuator kit
LPHW Heating	0.625	49.30	41.09	0.91	5.00	1½"	CPG0-3/W/P/C	CASCWKT0800
	0.750	44.80	45.21	1.01	5.80			
	0.875	41.10	48.85	1.09	6.60			
	1.000	38.00	52.13	1.16	7.40			
	1.125	35.40	55.12	1.23	8.10			
	1.250	33.20	57.89	1.29	8.80			
	1.500	29.60	62.86	1.40	10.10			

LPHW coil, designed for LPHW 82/71°C, EAT -5°C, LAT 25 °C, coil construction copper tubes, aluminium fins, coil connections 1½" BSP.
 Note: If no control panel is purchased the unit will be supplied with a main isolator.

	Technical Data			Heating and control options	
	Air volume m ³ /s	Maximum leaving air Temp °C	Maximum kW output	3ph - Electric heater	
				Electric heater	Control panel
Electronic thyristor heating	0.625	26.73	24	EHCA08/24KW/1X3	CPG0-3/24KW-3/P/C
	0.750	30.26	32	EHCA08/32KW/1X3	CPG0-3/32KW-3/P/C
	0.875	25.22			
	1.000	34.66	48	EHCA08/48KW/1X3	CPG0-3/48KW-3/P/C
	1.125	30.26			
	1.250	26.73			
	1.500	24.75	54	EHCA08/54KW/1X3	CPG0-3/54KW-3/P/C

Air off temperature based upon entering air of -5°C. Power = Air volume x Constant Temperature rise. kW =m³/s x 1.21 x ΔT°C.
 Note: If no control panel is purchased the unit will be supplied with a main isolator.

Noise and silencer data

Fan voltage	Fan speed (RPM)	Sound spectrum dB re 10 ⁻¹² w PWL centre frequency (Hz)								Casting noise breakdown			
		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	46	39	49	43
90%	1620	76	73	66	59	50	46	41	44	41	35	46	40
80%	1440	75	70	63	55	45	42	37	42	38	31	43	37
70%	1260	74	67	60	51	41	39	34	37	35	28	40	34
60%	1080	71	61	57	44	34	35	29	25	32	25	36	29

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)							
CASVA0800/1200/STD	63	125	250	500	1k	2k	4k	8k
Induct loss	-6	-8	-12	-19	-26	-32	-24	-21

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

Note: Data for design guidance only. Detailed information is available upon request.

Colourfan Supply Acoustic

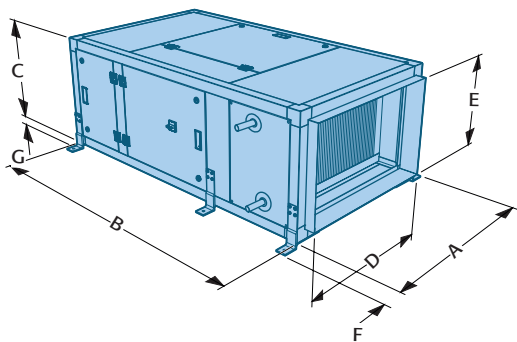
Unit and silencer configuration

Heating

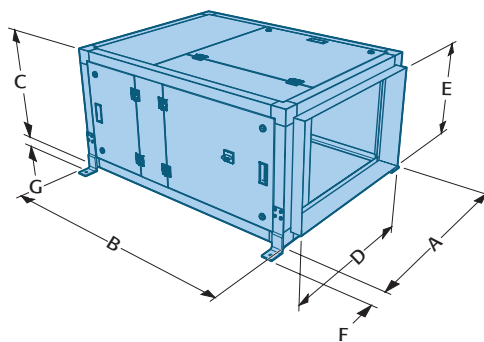
Controls

CAS0848-3 / P - **W** / EE / LT / G4 / **ISC**
W **E** RT F7 **CPSC**
 RB
 LB

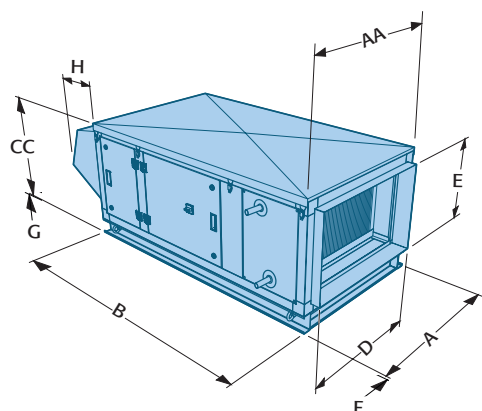
P Plantroom with heating



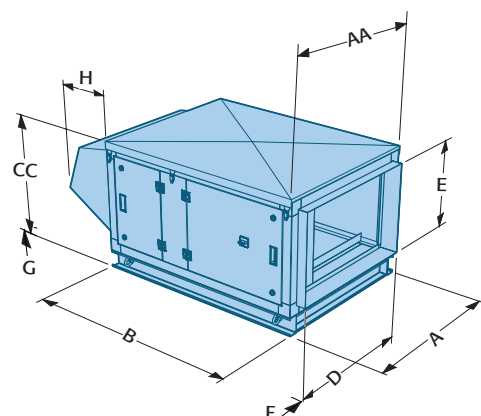
P Plantroom without heating



W Weatherproof with heating



W Weatherproof without heating

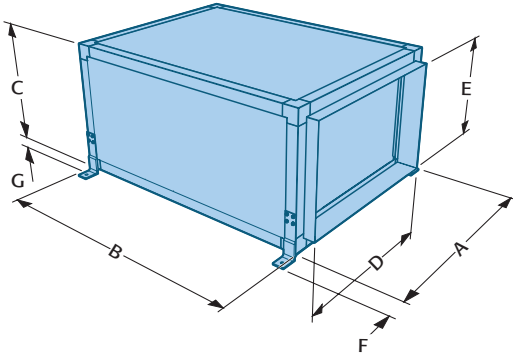


Unit type	Dimensions (mm)									Weight (kg)	Configuration options			
	A	AA	B	C	D	E	F	G	H		LT	LB	RT	RB
CAS8 Fan / Filter plantroom supply	1300		1275	910	1200	810	75	25		190	✓	✓	✓	✓
CAS8 Fan / Filter / Heater plantroom supply	1300		1750	910	1200	810	75	25		270	✓	✓	✓	✓
	A	AA	B	CC	D	E	F	G	H					
CAS8 Fan / Filter weatherproof supply	1300	1450	1275	1085	1200	810			350	250	✓		✓	
CAS8 fan / filter / Heater weatherproof supply	1300	1450	1750	1085	1200	810			350	340	✓		✓	

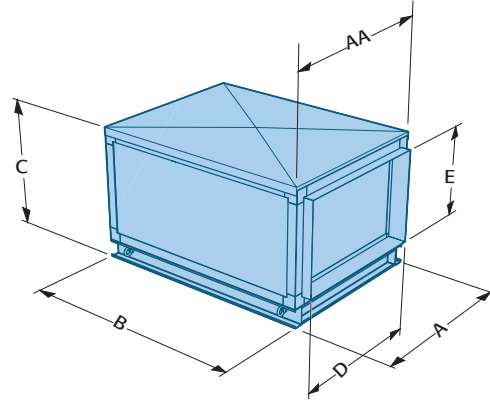
Note: Data for design guidance only. Detailed information is available upon request.

Silencer

Plantroom



Weatherproof



Unit type	Dimensions (mm)								Weight (kg)
	A	AA	B	C	D	E	F	G	
CAS8 Silencer plantroom	1300		1300	910	1200	810	75	25	175
CAS8 Silencer weatherproof	1300	1450	1300	1085	1200	810			220

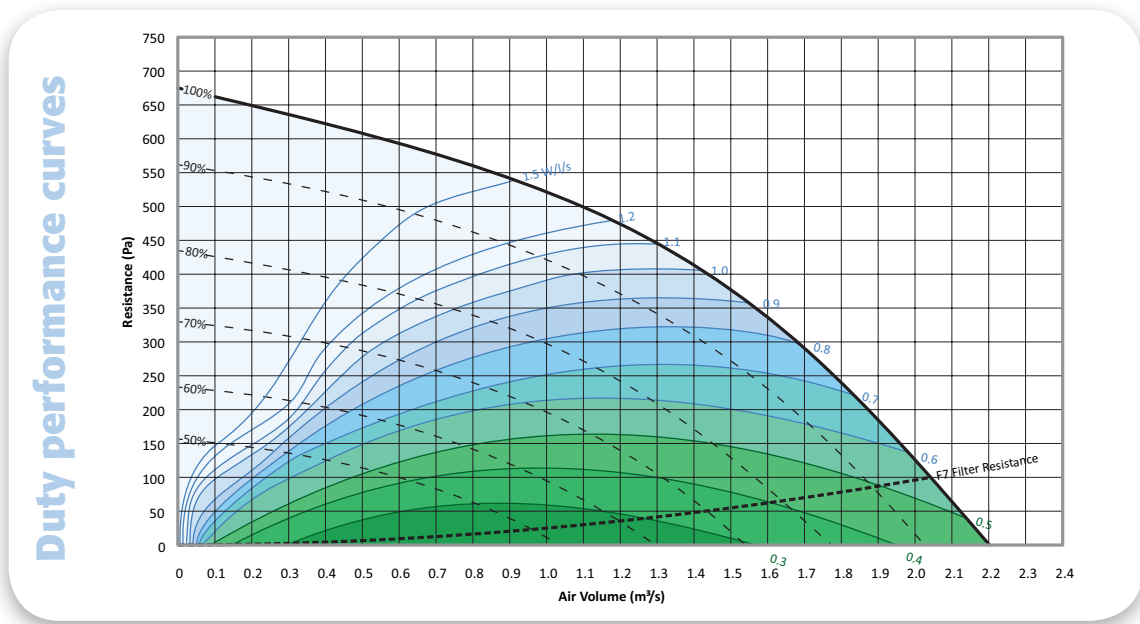
Colourfan Supply Acoustic

Selection data

Unit size 9 CAS0949-3

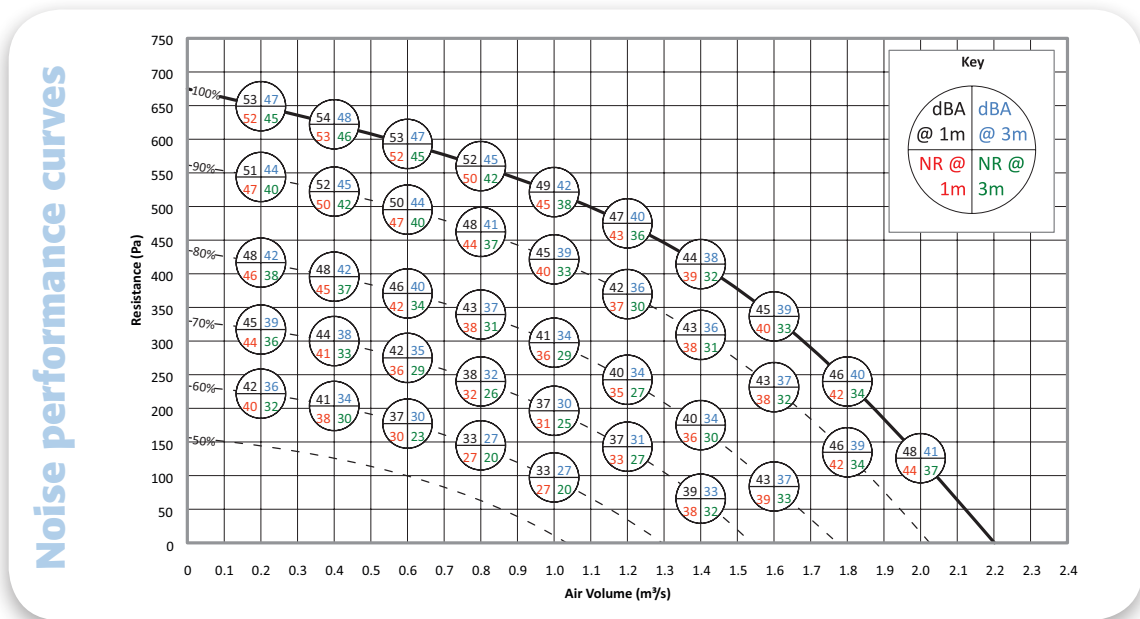
Performance

Size	Phase	Motor Size	Voltage	Fan Speed	Motor Full Load Current	Speed Control
CAS0949-3	3 Phase	1.25 kW	400 VAC	1400 rpm	1.65 A	EC



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

Notes: SFP figures quoted at voltages tested in accordance with BS EN ISO 5801:2017. The fan performance is calculated using standard G4 filters. Alternative F7 filters will add a maximum of 60 Pa. For specific duty information add the additional resistance to the total external resistance from the F7 curve above.



Note: NR levels are dependent upon environmental conditions.
 Tolerances:
 On flow rates $\pm 5\%$
 On acoustic power and pressure: levels ± 3 dB
 By octave band: ± 5 dB

Note: Data for design guidance only. Detailed information is available upon request.

Heating and controls

Heating
CAS0949-3 / P - W / EE / LT / G4 / ISC
W E RT F7 CPSC
RB LB

Controls

	Technical Data					Heating and control options		
	Air volume m ³ /s	Maximum leaving air Temp °C	Maximum kW output	Water flow rate l/s	Water pressure kPa	Coil connection size BSP	Control panel	Valve and actuator kit
LPHW Heating	0.750	31.60	33.28	0.74	3.00	2"	CPG0-3/W/P/C	CASCWKT0900
	0.875	30.70	37.88	0.84	3.40			
	1.000	30.00	42.38	0.94	4.10			
	1.125	29.30	46.76	1.04	4.70			
	1.250	28.70	51.04	1.14	5.40			
	1.500	27.60	59.27	1.32	6.80			
	1.750	26.60	67.06	1.49	8.30			

LPHW coil, designed for LPHW 82/71°C, EAT -5°C, LAT 25 °C, coil construction copper tubes, aluminium fins, coil connections 2" BSP.
 Note: If no control panel is purchased the unit will be supplied with a main isolator.

	Technical Data			Heating and control options	
	Air volume m ³ /s	Maximum leaving air Temp °C	Maximum kW output	3ph - Electric heater	
				Electric heater	Control panel
Electronic thyristor heating	0.750	30.22	32	EHCA09/32KW/1X3	CPG0-3/32KW-3/P/C
	0.875	25.22			
	1.000	34.66	48	EHCA09/48KW/1X3	CPG0-3/48KW-3/P/C
	1.125	30.26			
	1.250	26.73			
	1.500	24.75	54	EHCA09/54KW/1X3	CPG0-3/54KW-3/P/C
	1.750	29.00	72	EHCA09/72KW/1X3	CPG0-3/72KW-3/P/C

Air off temperature based upon entering air of -5°C. Power = Air volume x Constant Temperature rise. kW =m³/s x 1.21 x ΔT°C.
 Note: If no control panel is purchased the unit will be supplied with a main isolator.

Noise and silencer data

Fan voltage	Fan speed (RPM)	Sound spectrum dB re 10 ⁻¹² w PWL centre frequency (Hz)								Casting noise breakdown			
		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	42	34	46	40
90%	1260	71	72	63	57	47	44	41	48	39	33	44	38
80%	1120	71	68	60	52	41	40	34	45	36	30	40	34
70%	980	68	65	57	49	37	38	30	42	33	27	37	31
60%	840	71	61	53	44	33	34	25	23	27	20	34	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)							
CASVA0900/1200/STD	63	125	250	500	1k	2k	4k	8k
Induct loss	-6	-8	-12	-19	-26	-32	-24	-21

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

Note: Data for design guidance only. Detailed information is available upon request.

Colourfan Supply Acoustic

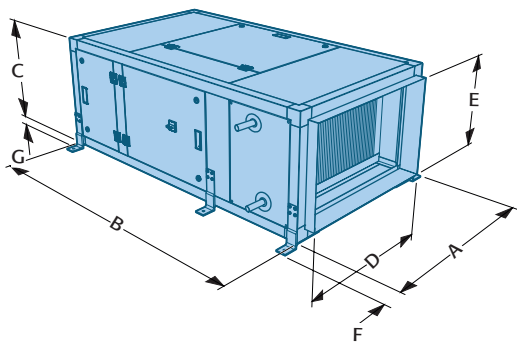
Unit and silencer configuration

Heating

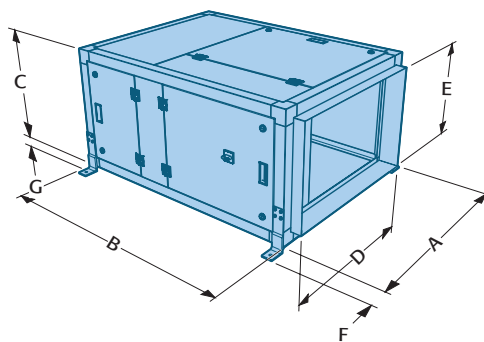
Controls

CAS0949-3 / P - **W** / EE / LT / G4 / **ISC**
W **E** RT F7 **CPSC**
 RB
 LB

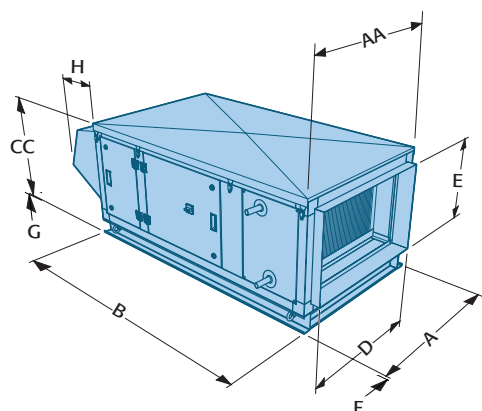
P Plantroom with heating



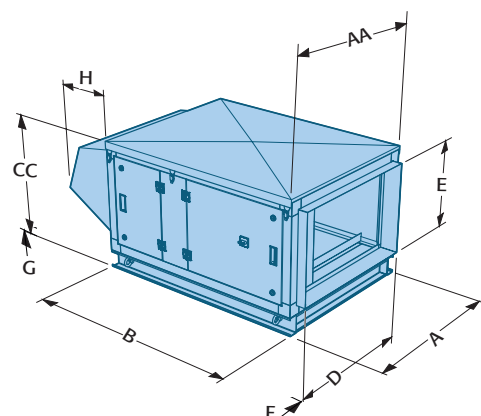
P Plantroom without heating



W Weatherproof with heating



W Weatherproof without heating

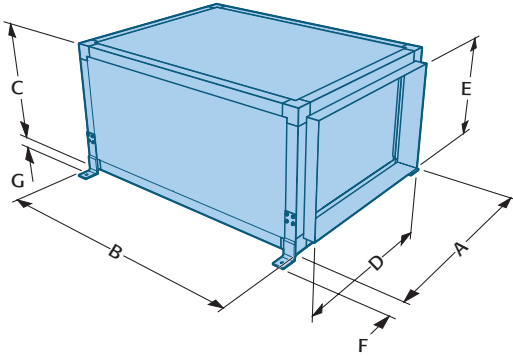


Unit type	Dimensions (mm)									Weight (kg)	Configuration options			
	A	AA	B	C	D	E	F	G	H		LT	LB	RT	RB
CAS9 Fan / Filter plantroom supply	1500		1300	1000	1400	900	75	25		220	✓	✓	✓	✓
CAS9 Fan / Filter / Heater plantroom supply	1500		1800	1000	1400	900	75	25		320	✓	✓	✓	✓
	A	AA	B	CC	D	E	F	G	H					
CAS9 Fan / Filter weatherproof supply	1500	1650	1300	1175	1400	900			350	290	✓		✓	
CAS9 fan / filter / Heater weatherproof supply	1500	1650	1800	1175	1400	900			350	400	✓		✓	

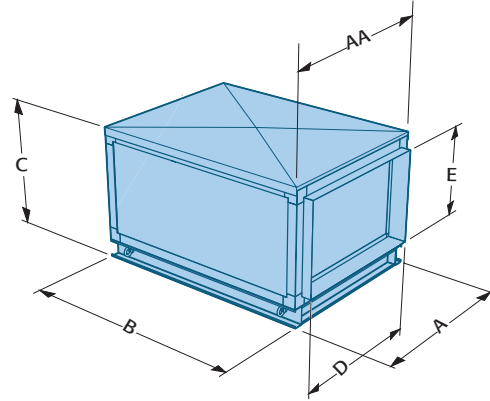
Note: Data for design guidance only. Detailed information is available upon request.

Silencer

Plantroom



Weatherproof



Unit type	Dimensions (mm)								Weight (kg)
	A	AA	B	C	D	E	F	G	
CAS9 Silencer plantroom	1500		1600	1000	1400	900	75	25	250
CAS9 Silencer weatherproof	1500	1650	1600	1175	1400	900			300

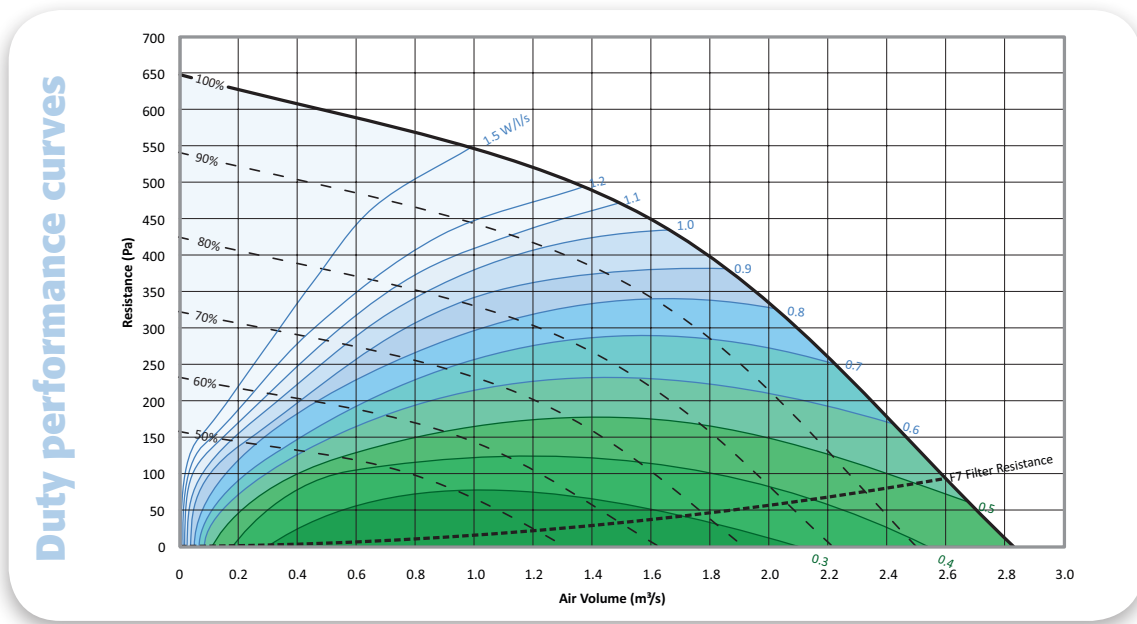
Colourfan Supply Acoustic

Selection data

Unit size 10 CAS10410-3

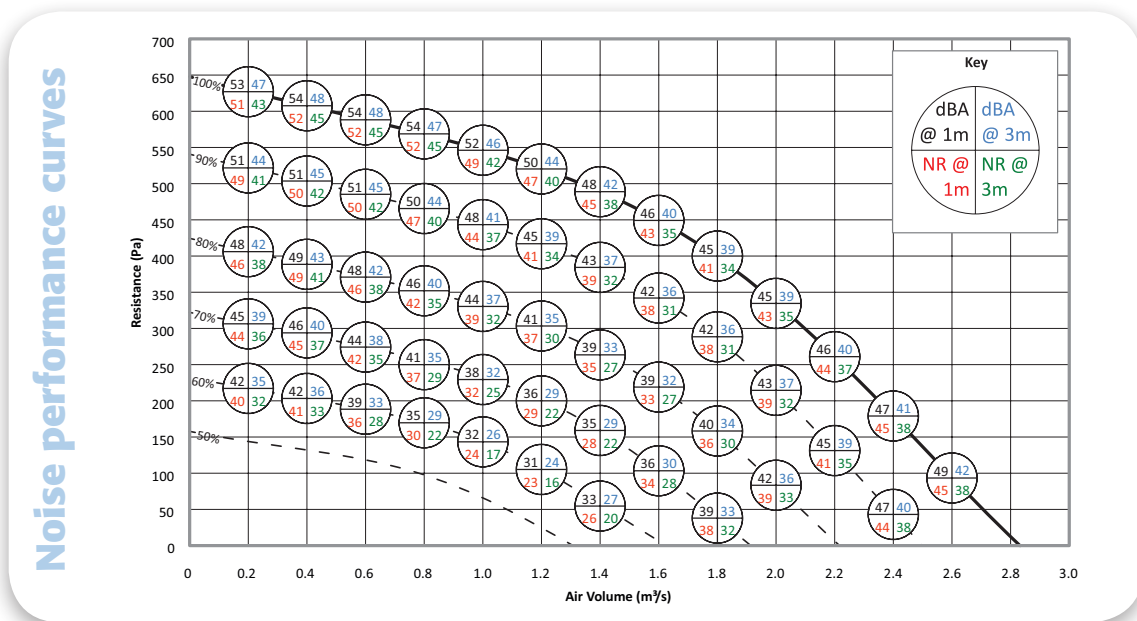
Performance

Size	Phase	Motor Size	Voltage	Fan Speed	Motor Full Load Current	Speed Control
CAS10410-3	3 Phase	1.5 kW	400 VAC	1230 rpm	2.1 A	EC



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

Notes: SFP figures quoted at voltages tested in accordance with BS EN ISO 5801:2017. The fan performance is calculated using standard G4 filters. Alternative F7 filters will add a maximum of 60 Pa. For specific duty information add the additional resistance to the total external resistance from the F7 curve above.



Note: NR levels are dependent upon environmental conditions.
Tolerances:
On flow rates $\pm 5\%$
On acoustic power and pressure: levels ± 3 dB
By octave band: ± 5 dB

Note: Data for design guidance only. Detailed information is available upon request.

Heating and controls

Heating CAS10410-3 / P - **W** / EE / LT / G4 / **ISC**
 W **E** RT F7 **CPSC**
 RB
 LB

	Technical Data						Heating and control options	
	Air volume m³/s	Maximum leaving air Temp °C	Maximum kW output	Water flow rate l/s	Water pressure kPa	Coil connection size BSP	Control panel	Valve and actuator kit
LPHW Heating	1.000	50.10	66.75	1.49	6.00	2"	CPG0-3/W/P/C	CASCWKT1000
	1.125	47.20	71.08	1.58	6.70			
	1.250	44.60	75.06	1.67	7.30			
	1.500	40.20	82.21	1.83	8.50			
	1.750	36.80	88.55	1.97	9.60			
	1.875	35.30	91.48	2.04	10.10			
	2.000	33.90	94.27	2.10	10.60			
	2.125	32.70	96.96	2.16	11.10			

LPHW coil, designed for LPHW 82/71°C, EAT -5°C, LAT 25 °C, coil construction copper tubes, aluminium fins, coil connections 2" BSP.
 Note: If no control panel is purchased the unit will be supplied with a main isolator.

	Technical data			Heating and control options	
	Air volume m³/s	Maximum leaving air Temp °C	Maximum kW output	3ph - Electric heater	
				Electric heater	Control panel
Electronic thyristor heating	1.000	34.66	48	EHCA10/48KW/1X3	CPG0-3/48KW-3/P/C
	1.125	30.26	48		
	1.250	26.73	48		
	1.500	24.75	54	EHCA10/54KW/1X3	CPG0-3/54KW-3/P/C
	1.750	29.00	72	EHCA10/72KW/1X3	CPG0-3/72KW-3/P/C
	1.875	26.73	72		
	2.000	25.75	72		
	2.125	23.00	72		

Air off temperature based upon entering air of -5°C. Power = Air volume x Constant Temperature rise. kW =m³/s x 1.21 x ΔT°C.
 Note: If no control panel is purchased the unit will be supplied with a main isolator.

Noise and silencer data

Fan voltage	Fan speed (RPM)	Sound spectrum dB re 10 ⁻¹² w PWL centre frequency (Hz)								Casting noise breakdown			
		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	44	37	46	40
90%	1107	72	71	61	54	43	40	35	47	38	32	42	36
80%	984	71	68	58	50	40	38	32	44	35	29	39	33
70%	861	71	62	54	46	36	35	32	36	28	21	35	29
60%	738	68	58	49	41	32	30	30	24	23	16	31	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)							
CASVA0900/1000/STD	63	125	250	500	1k	2k	4k	8k
Induct loss	-6	-8	-12	-19	-26	-32	-24	-21

Note: Each silencer will add a maximum of 27 Pa to the external resistance.

Note: Data for design guidance only. Detailed information is available upon request.

Colourfan Supply Acoustic

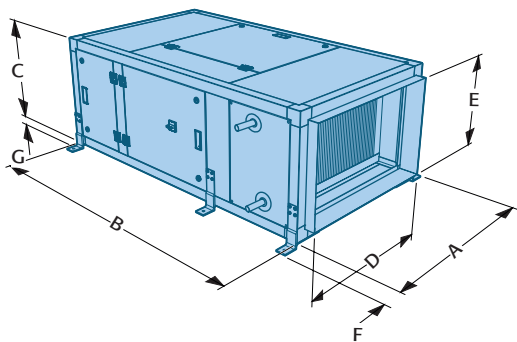
Unit and silencer configuration

Heating

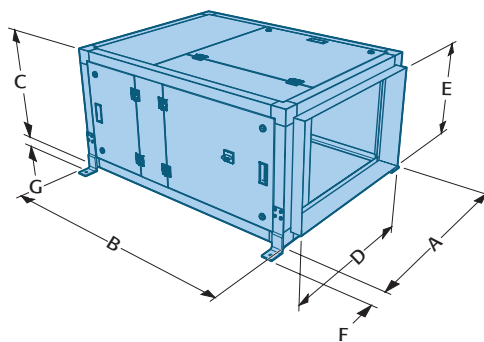
Controls

CAS10410-3 / P - **W** / EE / LT / G4 / **ISC**
W **E** RT F7 **CPSC**
 RB
 LB

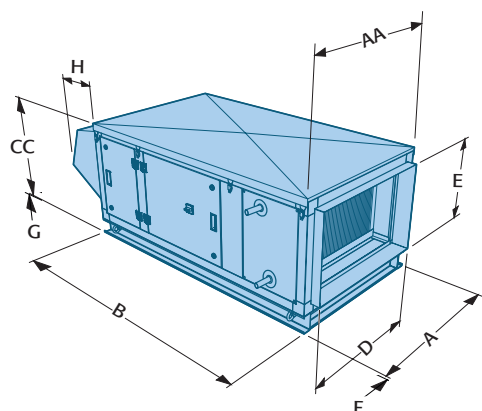
P Plantroom with heating



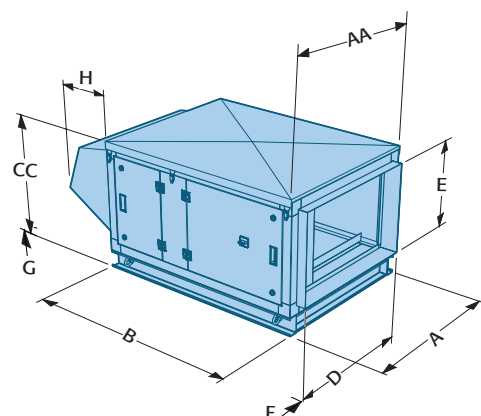
P Plantroom without heating



W Weatherproof with heating



W Weatherproof without heating

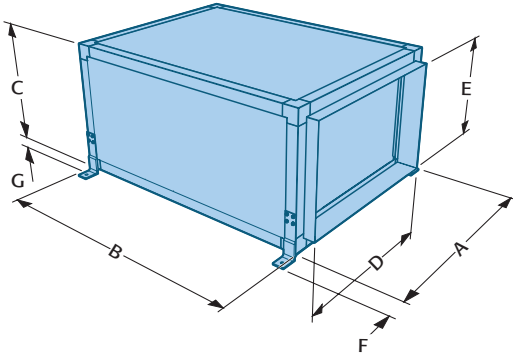


Unit type	Dimensions (mm)									Weight (kg)	Configuration options			
	A	AA	B	C	D	E	F	G	H		LT	LB	RT	RB
CAS10 Fan / Filter plantroom supply	1500		1300	1100	1400	1000	75	25		240	✓	✓	✓	✓
CAS10 Fan / Filter / Heater plantroom supply	1500		1800	1100	1400	1000	75	25		340	✓	✓	✓	✓
	A	AA	B	CC	D	E	F	G	H					
CAS10 Fan / Filter weatherproof supply	1500	1650	1300	1275	1400	1000			350	310	✓		✓	
CAS10 fan / filter / Heater weatherproof supply	1500	1650	1800	1275	1400	1000			350	420	✓		✓	

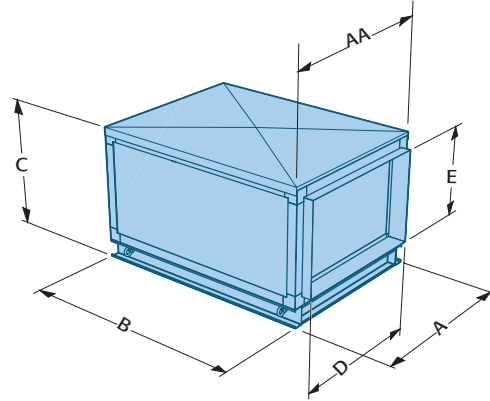
Note: Data for design guidance only. Detailed information is available upon request.

Silencer

Plantroom



Weatherproof



Unit type	Dimensions (mm)								Weight (kg)
	A	AA	B	C	D	E	F	G	
CAS9 Silencer plantroom	1500		1600	1000	1400	1000	75	25	270
CAS9 Silencer weatherproof	1500	1650	1600	1275	1400	1000			320

Colourfan Supply Acoustic

Control 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 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 Supply Acoustic BlueSense

All products in the Ecovent range can form part of a BlueSense energy saving package. Specify BlueSense to ensure 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

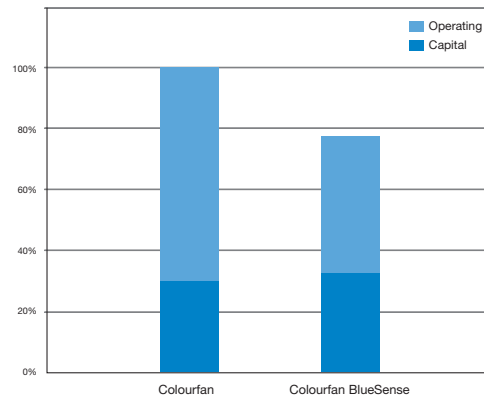
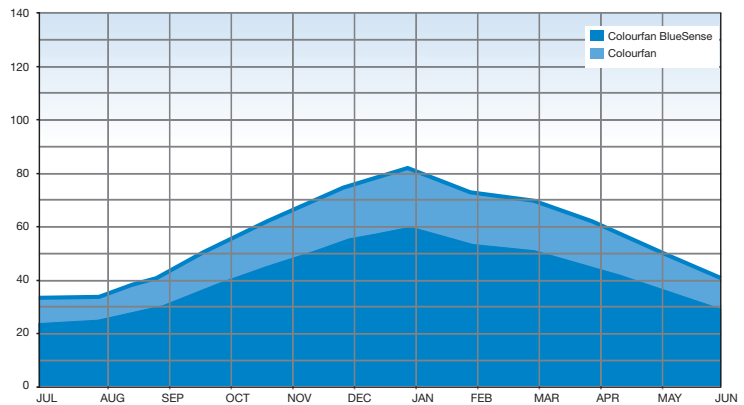
	+		+		=	BlueSense
Colourfan Supply Acoustic unit with integral controls		EC fan with full control		Sensor options		The sign of energy saving products, services and expertise

BlueSense energy savings

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

Energy chart life cycle costs

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 0.2m³/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.

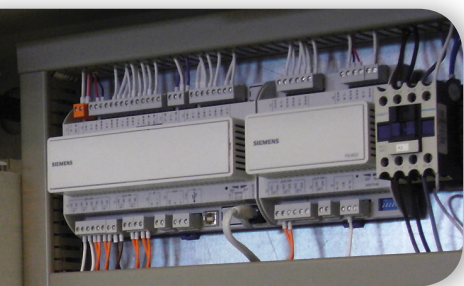
Colourfan *Supply Acoustic*

Colourfan Supply Acoustic controls introduction

The Colourfan unit with integrated controls is specifically designed for use in a variety of supply ventilation applications. The CPG control system can be supplied fully integrated into a Colourfan air handling unit to reduce installation time and costs.

Features

- ▶ Designed, manufactured and supported by VES engineers
- ▶ Default settings for “out of the box” operation and to minimise commissioning time
- ▶ Versatile HMI and open protocol integration options
- ▶ Door isolator and easily identified terminals to assist installation and maintenance
- ▶ Extensive parameter adjustment to optimise installation and further improve system efficiency



Specification for CPG control panels

Unit type	CPG
Fitted and pre-wired within air handling units or traditional loose panel options	✓
Supply fan starter with speed control interlock	✓
Extract fan starter with speed control interlock	✓
Heating, modulating control	✓
Frost protection and heating demand output for water coils	✓
Temperature philosophy; supply, return or return + supply limits	✓
7 day time clock	✓
Demand ventilation; air quality, constant pressure or volume	✓
Filter dirty indication; inputs for DP switches	✓
Fan run-on and safety interlocks	✓
Remote start / stop via removable link	✓
Common trip indication	✓
Fire alarm shutdown, 24 VDC	✓
Inlet and return damper	✓
Facia mounted HMI	✓
Remote user HMI, limited function	○
Remote user HMI, full function (replaces facia HMI)	○
Integration by Modbus RS485 open protocol	○
Integration by BACnet/IP open protocol	○
BlueSense - Energy saving package	✓
Energy efficient speed control	✓
Demand control	✓
Post installation commissioning	○

○ = option

Bespoke solutions

As well as offering a wide range of standard Ecovent 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.

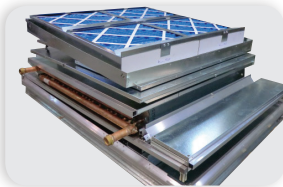
With VES you really get the full package without needing to mix and match suppliers.

Bespoke Options

- ▶ Acoustic options for noise sensitive applications
- ▶ EC Plug fans for duties above 1.3 m³/s
- ▶ Controls integration into new and existing building management systems
- ▶ Aesthetic requirements and paint colour finishes
- ▶ Saline environment protection
- ▶ Cooling coils
- ▶ Specialist filtration applications i.e carbon, grease, HEPA
- ▶ Flatpack and site assistance

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.



Flatpacking

- ▶ To suit difficult access locations
- ▶ Saves craneage costs
- ▶ No need for road closures
- ▶ Reduced manual handling risks



Post Installation Commissioning

VES technical engineers can ensure the unit has been installed and set up correctly. Also, VES can check all control wiring, set the unit running and measure air volumes (if suitable traverse point is available).



Spares and Maintenance

VES holds stock, or can source parts for all VES and other manufacturers products. A reminder service and regular user discount are available. VES offers varied maintenance agreements to suit location and budget.

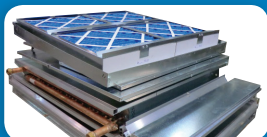


Energy Saving Solutions for Kitchens

VES can manufacture special Ecovent-K's, complete with grease filters, designed specifically for kitchens.



Ecovent-K



+



+



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Site Assistance By Specialist Site Services

VES has an accomplished Site Services division. Ecovent units can be delivered in flat pack form and re-assembled "in situ" in restricted and difficult locations.

Product specification

Colourfan® Supply Acoustic

1.1. General

- A. Provide an extract fan unit to meet the performance and configuration as indicated in the schedule and detail drawings. The extract fan unit shall be tested in accordance with BS EN ISO 5801:2017 and shall be of the Colourfan type as manufactured by VES Andover Ltd a company accredited with BS EN ISO 9001:2015.

1.2. Unit construction

- A. The unit shall be provided pre-assembled comprising of a rigidly constructed case, centrifugal backward curved fan with direct drive motor and rectangular spigots.
- B. The unit shall be supplied with a pleated panel filter as standard. Grade as indicated in the schedule and detail drawings.
- C. The unit shall be available with optional fitted electric or hot water heating as indicated in the schedule and detail drawings.
- D. The unit shall be available in plantroom or weatherproof construction as indicated in the schedule and detail drawings.
- E. Weatherproof units shall be fitted with an inlet cowl as standard, finished to match the unit casework.
- F. The unit casework shall incorporate high quality rubber gasket seals on service doors and panels.
- G. Sizes 0-10 shall be provided pre-assembled comprising of a rigidly constructed 50mm tubular aluminium case, double skinned galvanised sheet steel panels.
- H. Access for maintenance shall be via hinged panels, allowing access for the clearing or removal of internal components as indicated in the schedule and detail drawings.
- I. 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.
- J. Plantroom units shall incorporate mounting brackets compatible with drop-rod systems.
- K. 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.
- L. Weatherproof units shall be supplied powdercoated signal grey RAL7004 as standard. Alternative colour according to schedule.

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.

1.5. Filtration

- A. The filters shall be 98mm pleated filter media as standard, with rigid wax treated cardboard moisture resistant frame.
- B. Filters shall be to BS EN 779 classification, grade as indicated in the schedule and detail drawings.

1.6. Heating

- A. The unit shall be available with hot water or electric element heating as indicated in the schedule and detail drawings.
- B. The hot water heater battery shall be of copper tube, aluminium fin block construction, with galvanised sheet steel casework. The flow and return pipe connections shall be handed as indicated in the schedule and detail drawings.
- C. The hot water heater battery shall be available with alternative fin coatings by special order, as indicated in the schedule.
- D. The hot water heater battery shall be available with an optional fitted and pre-wired valve and actuator where indicated in the schedule and detail drawings.
- E. The electric heater battery shall be suitable for single or three-phase supply with thyristor control as indicated in the schedule and detail drawings.
- F. The electric heater battery shall consist of an element array sized to suit the power requirement and supply phase as indicated in the schedule and detail drawings. The elements shall consist of a tubular incoloy shroud containing compressed magnesium oxide powder packed around a nickel chromium resistance wire. The element array shall be evenly spread across the open area of the duct.

Premium efficiency supply units

- G. Where multiple elements are required to achieve the required power rating and supply phase as indicated in the schedule, elements shall be terminated with electrical connectors.
- H. The electric heater battery shall be fitted as standard with a 130°C non-adjustable thermal safety cut out, with manual reset.
- I. All electric heaters shall be 1500 V flash tested, and resistance tested for correct component assembly. Test certificates shall be available on request.

1.7. Operation environment

- A. The unit shall be designed to operate in ambient temperatures from -20°C up to 40°C, and can run continuously at up to 80% humidity level.

1.8. 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 CPG control panel as manufactured and factory fitted by VES Andover Ltd. to suit electric or hot water heating, or alternative loose CPG 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 for supply, extract, control electric heater battery where indicated in the schedule and detail drawings.
- F. Fitted controls shall be supplied with a supply air duct sensor to be fitted on-site by others as indicated in the schedule.
- G. Fitted controls shall be supplied with a wired AHU mounted LCD controller. Optional room user interfaces are available.
- H. Fitted controls shall be fully pre-wired to internal components. Hot water controls shall be pre-wired to a local junction box for easy electrical connection to optional four port valve actuator supplied by VES Andover Ltd as indicated in the schedule.

1.9. Ancillaries

- A. The unit shall be fully compatible with the Colourfan acoustic unit mounted silencers. The silencers shall be suitable for direct mounting to the unit.
- B. The silencer shall be rigidly constructed 50mm tubular aluminium case double skinned galvanised sheet steel panels incorporating internal splitting vanes lined with resin bonded mineral wool.
- C. The silencer casework shall be provided naturally finished in high quality galvanised steel as standard. Internal and external powdercoat available as indicated in the schedule. Colour to be in accordance with schedule.

Download specification from www.ves.co.uk

Product code guide

Colourfan Supply Acoustic					Case construction				Options				Ancillaries examples	
Product	Unit size	Fan type	Fan size	Phase	Unit config	Main heating	Infill	Handling	Main filter	Control panel section	Inlet/outlet	Colour	Name	Part number
CAS	00	5	1	-1	/P	[null]	/EE	/RT	/G4	/ISC	/C	[null]	Control panel	CPG0-1/6KW-1/P/C
	01	4	1	-1	/W	-E		/RB	/F7	/CPSC	/SP	/R7004	Electric heater battery	EHCA0/3KW/1X1
	02	4	2	-1		-E		/LT					Valve & actuator kit	CASCWKT000/"
	03	4	3	-1				/LB					Silencer	CASVA000/1000
	04	4	4	-1									Feet	NRGEX9000
	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

CAS = Colourfan Supply Acoustic

Unit config

/P=Plantroom
/W=Weatherproof

Main heating

[null]=No heating
-E=Electric heating
-W=Water heating

Infill

/EE=50mm

Handling

/RT=Right top
/RB=Right bottom
/LT=Left top
/LB=Left bottom

Main filter

/G4 grade filter
/F7 Grade filter

Control panel section

/ISC=Isolator and speed control
/CSPC=Control panel and speed control

Inlet/Outlet

/C=Cowl
/SP=Square spogot

Colour

[null]=Galvanised
/R=RAL (colours)

Example codes

SUPPLY CAS 0051-1/W-E/EE/RT/G4/ICS/C

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

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

Hybrid Units

- ▶ Natural ventilation enhanced by a low power fan
- ▶ Utilises a combination of automatic mechanical ventilation and manually operated windows to achieve classroom comfort conditions
- ▶ Simple user interface with indication of operating mode
- ▶ Slimline, lightweight construction, saving space and easing installation
- ▶ Available in a range of sizes with the ability to add heating coils when required

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

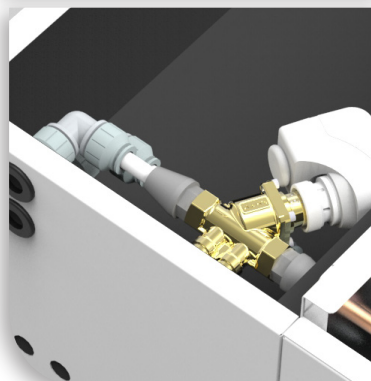
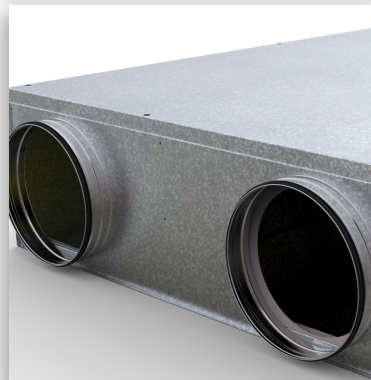
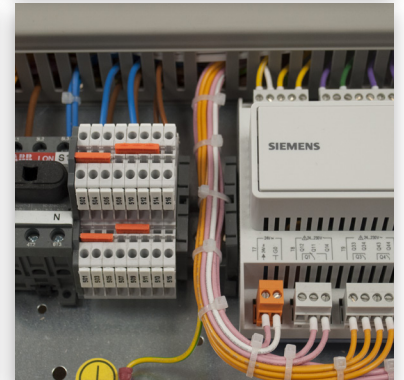
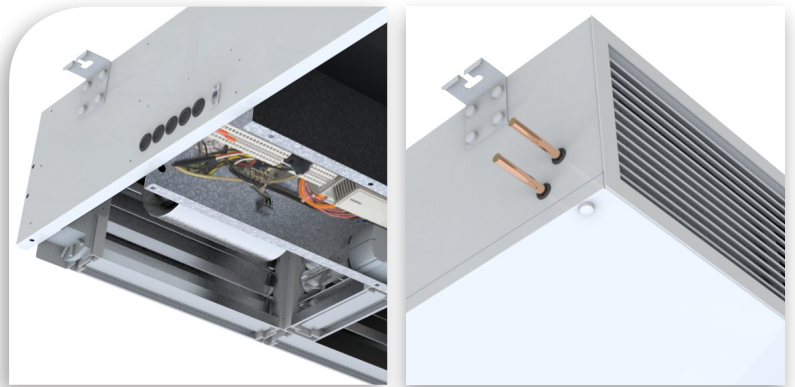
- ▶ Off the shelf and built to order panels
- ▶ Air quality sensors and energy savers
- ▶ Intelligent control software
- ▶ A range of remotes including touch screen

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 reserves the right to amend product specifications and details without notice.