

**SMALL FANS  
AIR MOVEMENT  
MADE SIMPLE**

ENERGY  
SAVING  
TECHNOLOGY  
FOR MAXIMUM  
EFFICIENCY

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PROUD TO BUILD BRITISH



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We've been pioneers in new air technology since 1966. Our heritage is in the design and manufacture of fans and ventilation systems. *We put our energy into efficient ventilation so you don't waste yours.*



**Pioneering**

We lead the way in product innovation with a stream of ground-breaking products over decades.



**Trusted**

We have a reputation for our build quality. We establish long term relationships and are always transparent with our test data.



**Agile**

We're one of the UK's leading manufacturers, covering both residential and commercial air quality. We offer innovative advice and provide flexible solutions.



**Expert**

Our team is made up of over 600 people, 50 of which have over 25 years' experience. We have the skills and knowledge to help find the best solution for our customers.



**Attentive**

We're expert listeners, rising to any challenge and going the extra mile for our customers. We add value by solving problems. We sell solutions, not fans.



**Personal**

We work closely with our customers and can provide bespoke solutions to meet their specific project needs. Many of our product ranges were developed this way.

“Our expertise, experience and innovation is what makes us stand out from the rest of the market.”

Nuaire.



For help with selecting a unit, speak to us on **02920 858200** or email: [enquiries@nuaire.co.uk](mailto:enquiries@nuaire.co.uk)

ABOUT SMALL FANS

Nuaire offers a wide range of fans for wall, ceiling and window applications, all utilising the latest energy-efficient energy-saving technology for maximum efficiency and improved indoor air quality.

Our small fans are simple to use and quick to install, making them a cost-effective solution to ventilating single rooms or smaller commercial spaces.

Nuaire has a pedigree in developing high performance, low-profile supply and extract fans. Brands such as Opus are iconic names in the industry, and the enduring Opus range remains one of the most popular small fans on the market.

Innovation in DC technology allows us to continually develop our smaller units to offer the lowest possible Specific Fan Power and minimal noise levels, while still maintaining the highest levels of air movement in a small fan case.

Nuaire's small fan range is versatile with a comprehensive choice of products to suit your specific project requirements.



OPUS AS IT IS TODAY



OPUS AS IT USED TO BE



# CASE STUDY VILLAGE HOTEL, PORTSMOUTH

Opened in late 2017, Village Hotels' Portsmouth expansion was created with a contemporary and upscale design. Major design work was carried out by RYBKA Smith, Ginsler & Battle with all M&E work awarded to Borley Engineering Ltd. Construction started in January 2017 after preliminary designs were completed in June 2016.



### A DECENTRALISED APPROACH

Rather than a centralised ventilation system, such as an AHU or toilet extract units, RYBKA opted for a decentralised design with an extract unit in each individual guestroom. The hotel's ventilation strategy was designed in this way to reduce the space needed for a plant room on the roof due to space and noise restrictions.

Over 150 Opus units were specified for the Portsmouth Village Hotel project, with fans installed in each bathroom. Units supplied for the guestrooms were OPUS40S-ESPF extract fans, able to achieve airflow duties of up to 40l/s. This aided in meeting airflow requirements for the building, while only having one small fan per room.

### SIMPLE INSTALLATION & MAINTENANCE

Each Opus unit installed was specified with Ecosmart controls and a PIR sensor. Simple to commission, these controls would save the contracting team time during the installation stage, despite so many units being specified. PIR sensors integral to each Opus unit allowed the fans to be installed with very little aftercare required – standby, boost and run-on parameters of the fan would be set at the install stage, with the PIR controlling trickle and boost via guest occupancy.

### SUMMARY

Opus units were installed at Village Hotel Portsmouth as an alternative to a large centralised ventilation system. This strategy was deemed the more suitable option for the project as it provided adequate airflow to each of the guestrooms, and was a simpler way for the building's maintenance team to identify and separate rooms in need of repair.

Design consultants RYBKA are utilising the same approach with future Village Hotel projects.

### OPUS – KEY FEATURES:

- **High performance** – Opus 40 units able to achieve duties of up to 40l/s.
- **Compact design** – can be surface mounted or recessed for concealed installation.
- **Ecosmart controls** – simple commissioning and cost-effective control solution.
- **Integral PIR** – no need for additional switch-live controls.
- **Low noise** – latest DC technology ensures high performance with low noise levels.

# PRODUCT MATRIX

		PAGE	DUTY RANGE	ANCILLARIES	TYPICAL APPLICATIONS
FAITH		6	Up to 26l/s	<ul style="list-style-type: none"> <li>• SELV 24v</li> </ul>	<ul style="list-style-type: none"> <li>• Bathroom</li> <li>• Utility room</li> <li>• Toilet</li> <li>• Kitchens</li> <li>• Accommodation</li> </ul>
XS		8	Up to 550l/s	<ul style="list-style-type: none"> <li>• Speed controller</li> <li>• Integral/remote PIR sensors</li> <li>• Integral/remote Humidistat</li> <li>• Integral/remote air quality sensors</li> <li>• Integral timers</li> <li>• Refurb kits</li> </ul>	<ul style="list-style-type: none"> <li>• Accommodation</li> <li>• Changing areas</li> <li>• Hospitals/Healthcare</li> <li>• Kitchens</li> <li>• Large offices</li> <li>• Sports halls</li> <li>• Small WCs</li> </ul>
OPUS 40-60-95		14	Up to 95l/s	<ul style="list-style-type: none"> <li>• Remote fail indicator</li> <li>• External humidistat</li> <li>• Vandal proof cover</li> <li>• Backdraught shutter</li> <li>• Ecosmart compatible</li> </ul>	<ul style="list-style-type: none"> <li>• Washrooms</li> <li>• Small offices</li> <li>• Accommodation</li> <li>• Hotels</li> <li>• Apartments &amp; flats</li> <li>• Hospitals/Healthcare</li> </ul>
ES-OPUSDC		18	Up to 115l/s	<ul style="list-style-type: none"> <li>• Remote fail indicator</li> <li>• External humidistat</li> <li>• Vandal proof cover</li> <li>• Backdraught shutter</li> <li>• Ecosmart compatible</li> </ul>	<ul style="list-style-type: none"> <li>• Hospitals/Healthcare</li> <li>• Offices</li> <li>• Accommodation</li> <li>• Hotels</li> <li>• Kitchens</li> <li>• Apartments &amp; flats</li> </ul>
MEVDC		20	Up to 98l/s	<ul style="list-style-type: none"> <li>• Humidistat</li> <li>• Acoustic-lined case</li> <li>• G2 filters</li> <li>• Ecosmart compatible</li> <li>• Spigot/damper kits</li> </ul>	<ul style="list-style-type: none"> <li>• Hospitals/Healthcare</li> <li>• Offices</li> <li>• Accommodation</li> <li>• Hotels</li> <li>• Kitchens</li> <li>• Apartments &amp; flats</li> </ul>



## FAITH PERFORMANCE & TECHNICAL INFORMATION

Compact and stylish continuous running dMEV unit, designed to ventilate small spaces. Units are suitable to extract directly to the outside or through a short length of duct.

### KEY BENEFITS:

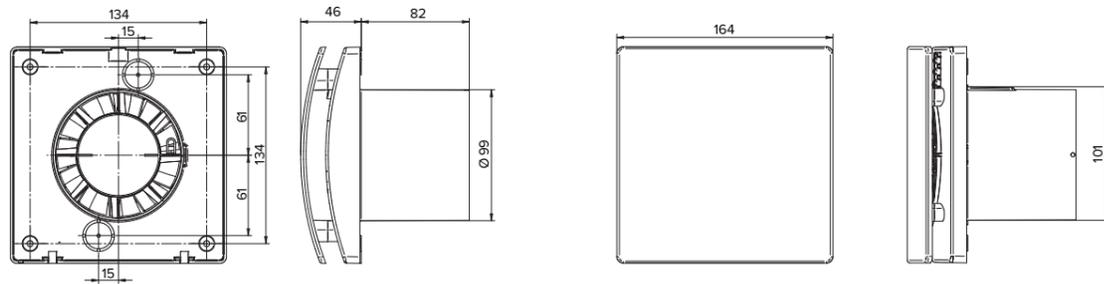
- ▶ **ULTRA-MODERN DESIGN** – PROVIDES AN UNOBTRUSIVE INSTALLATION.
- ▶ **IPX4 SPLASH PROOF** – UNITS CAN BE INSTALLED SAFELY IN ZONES 1 & 2.
- ▶ **QUIET RUNNING** – EXCEPTIONALLY LOW NOISE OPERATION.
- ▶ **EASY INSTALLATION** – CAN BE WINDOW MOUNTED OR RECESSED.
- ▶ **ENERGY SAVING** – HUMIDISTAT CONTINUALLY MEASURES HUMIDITY LEVELS AND ADJUSTS FAN ACCORDINGLY.

### CODING FAITH - SELV

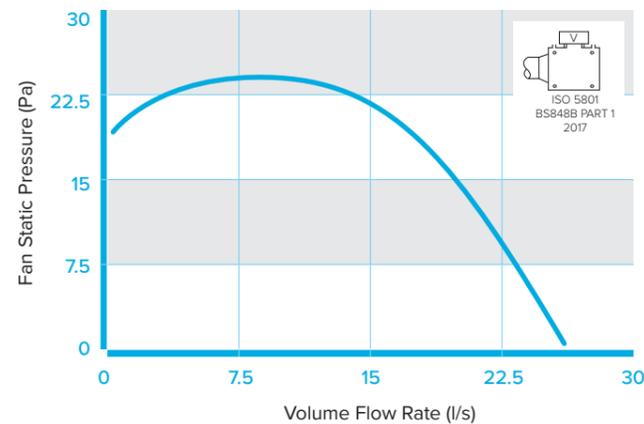
**FAITH - SELV**  
1 2

### SAMPLE CODING

1. Faith fan range
2. SELV 24v version (optional)



### FAITH PERFORMANCE CURVE



### DIMENSIONS (mm) AND WEIGHT (Kg)

MODEL	A	B	C	D	E	WEIGHT
FAITH	164	134	46	99	82	0.6

### TECHNICAL DATA

CODE	PHASE	RPM	FLC (A)	dB(A) @3M
FAITH	1	2500	0.05	33

## FAITH CONSULTANT SPECIFICATION

### FAN DESCRIPTION

Extract fans shall be as Nuair 'FAITH' and Nuair 'FAITH-SELV' and include the following;

The fan shall be capable of a fully adjustable duty of between 4 and 25l/s. Increments shall be 4, 8, 10, 13, 15, 18, 20, 25l/s.

The fan shall be complete with low-energy motors with sealed-for-life-bearings having a maximum of 5W consumption at 25l/s. The fan must not exceed 0.5w of energy in 'stand-by' mode in compliance with the EUP Directive.

The motor shall have locked motor protection to prevent overheating in the event of fan failure.

The fan shall operate at a noise level of no more than 33 dBA at 3m when at maximum speed.

Boost activation shall be either by switched live or integral pull-cord.

The fan shall incorporate an adjustable humidistat which shall boost the unit to a selectable speed independent of the switched live or pull-cord boost facility.

The fan shall be capable of operating in 'continuous' mode with independent low level and boost settings ranging from 8l/s up to 25l/s complete with overrun facility ranging from 1-30 minutes.

The fan shall incorporate a control panel with three push-button-switches and three digit seven-segment-displays. The control panel should allow the adjustments of the following functions:

- Display litres per second (l/s).
- Continuous flowrate requirement between 4l/s to 13l/s.
- Boost flowrate requirement by humidity between 6l/s and 25l/s.
- Boost flowrate requirement by switched live or pull-cord between 13l/s and 25l/s.
- Ability to set the installed condition in either 'through wall' or 'in-room' installation.

Select either fixed flowrate or constant volume. Selecting constant volume should allow the fan to speed up or slow down depending on the loading placed upon the fan.

- Humidity trigger set point between off and 95%.
- Run-on period – 0 to 30 mins.
- 3 minute boost delay – unit will not boost unless switched live has been activated for more than 3 minutes.

The fan shall be equipped with 100mm diameter outlet connection.

The front cover plate shall incorporate a safety feature which will, if removed, prevent the impeller rotating.

FAITH unit shall be suitable for 230v mains connection. FAITH-SELV shall be supplied with a housing incorporating a 24v DC safe extra low voltage (SELV) power supply.

The fan shall be IPX4 rated.

The case shall be made of 100% recyclable ABS.

The above shall be complete with a 5 year manufacturer's warranty (1 year parts and labour and 4 additional years parts only).

In addition to the above, the fan shall have the following options:-

Window mounting kit – Part Number FAITH-WKIT.

Wall plate – Part Number FAITH-WP.

Through the wall kits –

- Part Number FAITH-WALLKIT-WH (White).
- Part Number FAITH-WALLKIT-COT (Cotswolds).
- Part Number FAITH-WALLKIT-TC (Terracotta).
- Part Number FAITH-WALLKIT-BR (Brown).

## XS RANGE PERFORMANCE & TECHNICAL INFORMATION

Wide range of multipurpose wall, window, and roof fans with a duty range of up to 0.55m<sup>3</sup>/s and optional integrated controls.



### KEY BENEFITS:

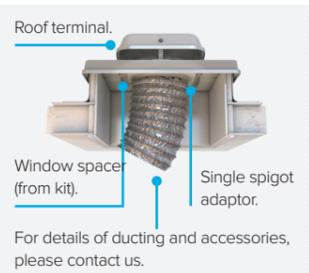
- ▶ **QUIET OPERATION** – ULTRA QUIET FAN WITH WAX THERMOS ACTUATOR, TOGETHER WITH MARKET LEADING MOTORS AND IMPELLER TECHNOLOGY.
- ▶ **HIGH PERFORMANCE** – DELIVERS INDUSTRY LEADING PERFORMANCE, COUPLED WITH LOW NOISE LEVELS.
- ▶ **FLEXIBLE SOLUTIONS** – REVERSIBLE FOR EXTRACT AND SUPPLY WITH INFINITELY VARIABLE SPEED CONTROL.
- ▶ **SAVE ENERGY & MONEY** – ECONOMY SPEED SETTING THAT WILL MAXIMISE PERFORMANCE AT THE LOWEST ENERGY USE.
- ▶ **COMPLETE USER SAFETY** – ROBUST CONSTRUCTION, MANUFACTURED FROM FLAME RETARDANT ABS POLYMER IP44 RATED FOR LONG LIFE.
- ▶ **EASY REFURBISHMENT** – XS REFURB KITS ARE QUICK TO INSTALL AND CAN BE USED TO REPLACE MOST EXISTING SYSTEMS.

### TYPICAL INSTALLATION

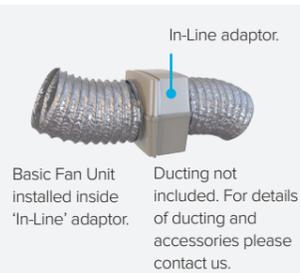
#### Exposed site window installation (use with Window Fan Kit).



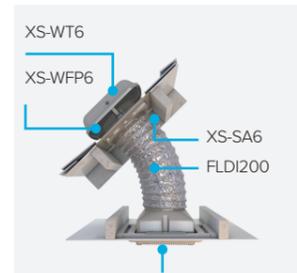
#### Flat roof (ducted to ceiling) installation (use with Ceiling Fan Kit).



#### In-Line installation (use with Basic Fan Unit).



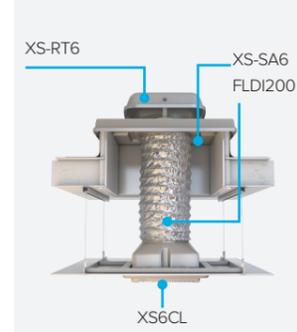
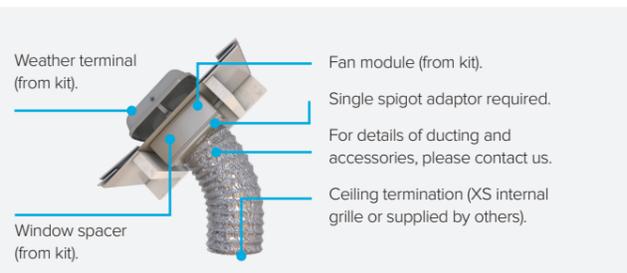
#### Ceiling mounted fans for ducted applications.



#### Exposed site wall installation (use with Wall Fan Kit).



#### Pitched roof (ducted to ceiling) installation (use with Pitched Roof Fan Kit).



## XS RANGE CONSULTANT SPECIFICATION



### FAN DESCRIPTION

The extract fan/s shall be located in the positions indicated on the drawings and in accordance with the relevant fan schedule.

The fan shall be of the XS type and shall be supplied complete with integrated low loss radial backdraught shutter, silent operation via a thermo actuator, room side grille, connection kit and external louvre/ roof cowl to suit the particular application.

The high efficiency, low noise axial flow impeller shall be directly driven by an external rotor motor featuring enclosure protection to

IP 44, class B winding insulation and maintenance free ball bearings.

All models shall be suitable for air over motor temperatures of up to 25°C (occasionally 35°C) and 95% R.H (non-condensing). The motor and impeller shall be dynamically balanced as an assembly.

Fan casing, impeller and shutter shall be manufactured from UV stabilised ABS polymer. All models shall include an economy/high efficiency setting facility and are dove grey in colour.

The fan shall be provided complete with integrated or remote controls as detailed in the schedule and as described below.

Where indicated the fans shall be interlinked and controlled from 1No. controller (up to 5 fans sizes 6 & 9, up to 3 fans size 12).

Fans shall be reversible via reversing switch on XS-MFC fan controller.

Fan to be of the XS type as manufactured by Nuaire.

### FAN CONTROL OPTION

The fan shall be provided with either integrated sensor to activate the fan or one of the remote options:

#### INTEGRATED CONTROL OPTIONS:

- PIR (passive infra-red) movement detector (includes run-on timer), 2-40 mins RT.
- Humidity sensor (includes run-on timer), 30-90% RH - 2-40 mins RT.
- Air quality sensor (includes run-on timer), 2-40 mins RT.
- Run-on timer, 2-40 mins RT.
- Temperature sensor (includes run-on timer), 25°C (occasionally 35°C) (fixed 2 mins overrun).

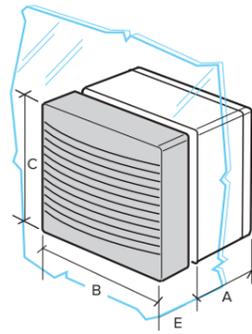
#### REMOTE CONTROL OPTIONS:

- PIR (passive infra-red) movement detector (includes run-on timer), 2-40 mins RT.
- Humidity sensor (includes run-on timer), 30-90% RH - 2-40 mins RT.
- Air quality sensor (includes run-on timer), 2-40 mins RT.
- Anti-tamper security strap.
- XS-MFC controller incorporating economy switch, reversing.
- XS-MFC suitable for air over motor temperatures of up to 25°C (occasionally 35°C).

1No. XS-MFC controller may be used to control up to 5 fans.

Fan, integrated controls or associated sensors/controllers shall be as manufactured by Nuaire.

The manufacturer's recommendations should be observed at all times.



**XSGL WINDOW MOUNTED FAN**

**DIMENSIONS (mm) AND WEIGHT (Kg)**

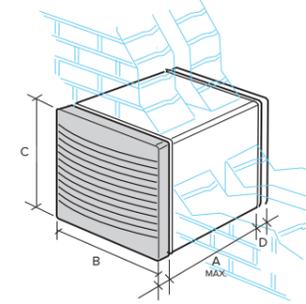
MODEL	A	B	C	D	E	WEIGHT
XS6GL	161	269	269		31	4.65
XS9GL	158	342	342		35	6.3
XS12GL	172	420	420		46	8.7

**CODING XS6GL**

XS 6 GL  
1 2 3

**SAMPLE CODING**

1. XS range
2. Size indication
3. GL = window model



**XS6WA WALL MOUNTED FAN**

**DIMENSIONS (mm) AND WEIGHT (Kg)**

MODEL	A	B	C	D	WEIGHT
XS6WA	370	269	269	31	4.7
XS9WA	370	342	342	35	6.45
XS12WA	370	420	420	46	9.4

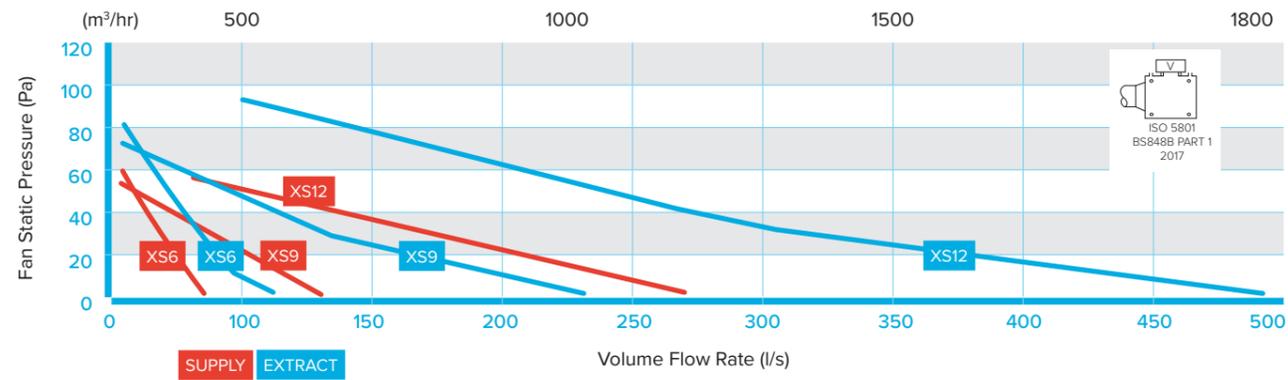
**CODING XS6WA**

XS 6 WA  
1 2 3

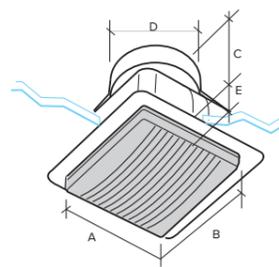
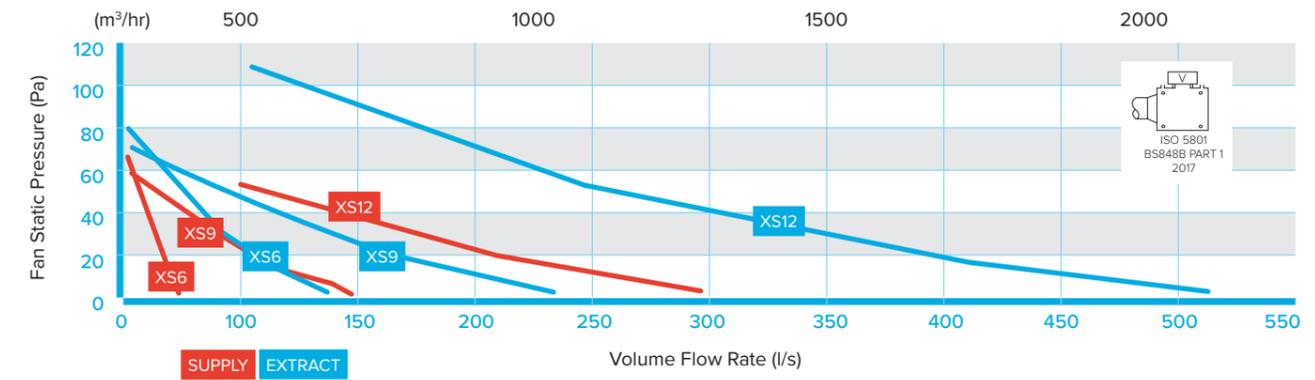
**SAMPLE CODING**

1. XS range
2. Size indication
3. WA = wall model

**XSGL PERFORMANCE REPRESENTS COMPLETE FAN KIT**



**XS6WA PERFORMANCE REPRESENTS COMPLETE FAN KIT**



**XS6CL CEILING MOUNTED FAN**

**DIMENSIONS (mm) AND WEIGHT (Kg)**

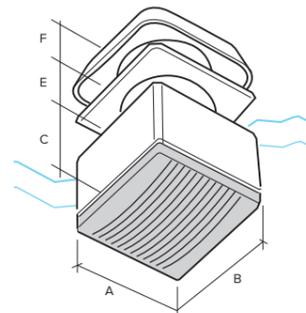
MODEL	A	B	C	D	E	WEIGHT
XS6CL	269	272	200	200	30	3.95
XS9CL	342	342	200	250	30	5.5
XS12CL	420	420	200	350	30	8.7

**CODING XS6CL**

XS 6 CL  
1 2 3

**SAMPLE CODING**

1. XS range
2. Size indication
3. CL = ceiling model



**XS6PR/FR ROOF MOUNTED FAN**

**DIMENSIONS (mm) AND WEIGHT (Kg)**

MODEL	A	B	C	D	E	F	WEIGHT
XS6PR	369	269	161		150	170	6.3
XS9PR	342	342	158		150	180	8.9
XS12PR	420	420	172		150	185	11.8
XS6FR	269	269	161		150	170	8.31
XS9FR	342	342	158		150	180	10.26
XS12FR	420	420	172		150	145	11

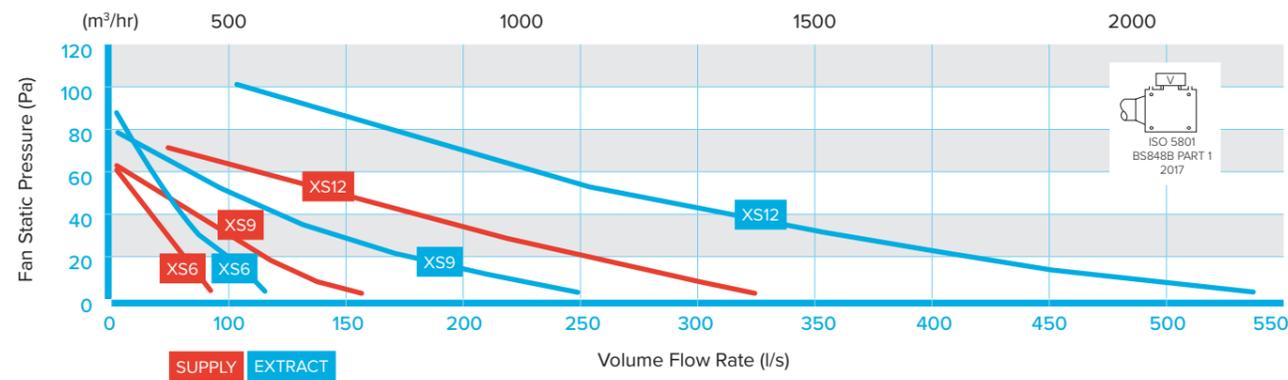
**CODING XS6PR**

XS 6 PR  
1 2 3

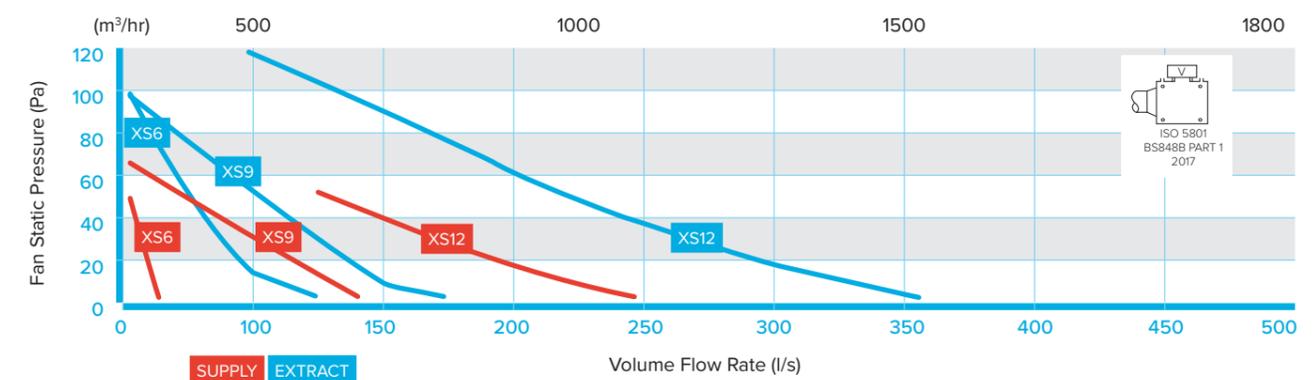
**SAMPLE CODING**

1. XS range
2. Size indication
3. PR = pitched-roof model  
FR = flat-roof model

**XS6CL PERFORMANCE REPRESENTS COMPLETE FAN KIT**



**XS6PR/FR PERFORMANCE REPRESENTS COMPLETE FAN KIT**



SUPPLY

CODE	PHASE	RPM SPEED	MOTOR CURRENTS		SOUND POWER LEVELS RE 1 PWATT (Hz) INDUCT INLET								
			FLC (A)	SC (A)	63	125	250	500	1K	2K	4K	8K	dB(A) @3M
XS6CL	1	2000	0.19	0.6	53	67	58	57	58	59	50	42	42
XS6FR	1	2000	0.19	0.6	50	77	63	63	53	50	43	35	44
XS6GL	1	2000	0.19	0.6	55	68	59	56	57	57	49	41	41
XS6PR	1	2000	0.19	0.6	50	77	63	63	53	50	43	35	44
XS6WA	1	2000	0.19	0.6	54	68	60	57	58	57	49	41	42
XS9CL	1	1400	0.26	0.8	44	56	57	56	58	57	53	44	42
XS9FR	1	1400	0.26	0.8	52	59	57	57	59	58	54	45	43
XS9GL	1	1400	0.26	0.8	64	71	61	56	56	55	48	38	41
XS9PR	1	1400	0.26	0.8	52	59	57	57	59	58	54	45	43
XS9WA	1	1400	0.26	0.8	57	67	61	53	54	52	47	38	39
XS12CL	1	1370	0.48	1.32	62	66	63	65	66	62	56	49	48
XS12FR	1	1370	0.44	1.32	65	70	65	65	61	54	49	42	45
XS12GL	1	1370	0.48	1.32	65	70	65	64	62	59	53	46	46
XS12PR	1	1370	0.44	1.32	65	70	65	65	61	54	49	42	45
XS12WA	1	1370	0.48	1.32	63	70	63	61	62	49	53	45	45

EXTRACT

CODE	PHASE	RPM SPEED	MOTOR CURRENTS		SOUND POWER LEVELS RE 1 PWATT (Hz) INDUCT INLET								
			FLC (A)	SC (A)	63	125	250	500	1K	2K	4K	8K	dB(A) 3M
XS6CL	1	2000	0.19	0.6	46	52	55	51	58	58	53	42	42
XS6FR	1	2000	0.19	0.6	47	52	49	52	57	58	54	44	41
XS6GL	1	2000	0.19	0.6	46	51	52	52	57	57	53	42	41
XS6PR	1	2000	0.19	0.6	47	52	49	52	57	58	54	44	41
XS6WA	1	2000	0.19	0.6	44	51	53	51	57	58	53	42	41
XS9CL	1	1400	0.26	0.8	61	66	58	52	53	53	47	37	38
XS9FR	1	1400	0.26	0.8	60	68	63	58	55	50	44	36	40
XS9GL	1	1400	0.26	0.8	47	64	55	52	57	56	53	44	41
XS9PR	1	1400	0.26	0.8	60	68	63	58	55	50	44	36	40
XS9WA	1	1400	0.26	0.8	48	67	61	55	62	59	54	45	44
XS12CL	1	1370	0.48	1.32	67	70	64	64	63	59	53	46	46
XS12FR	1	1370	0.44	1.32	64	67	66	65	65	62	57	50	48
XS12GL	1	1370	0.48	1.32	58	63	61	62	65	61	56	49	47
XS12PR	1	1370	0.44	1.32	64	67	66	65	65	62	57	50	48
XS12WA	1	1370	0.48	1.32	57	63	65	62	64	61	55	48	47

XS FAN ANCILLARIES



UNIT SIZE	SPEED CONTROL	INTEGRAL SENSORS					REMOTE SENSORS			
		PIR	HUMIDISTAT	AIR QUALITY	TIMER	TEMP	PIR	HUMIDISTAT	AIR QUALITY	REFURB KIT
XS6	XS-MFC	XS-PIR6	XS-H6	XS-AQ6	XS-TA6	XS-TH6	XS-PIRR	XS-HR	XS-AQR	XS6RE
XS9	XS-MFC	XS-PIR9	XS-H9	XS-AQ9	XS-TA9	XS-TH9	XS-PIRR	XS-HR	XS-AQR	XS9RE
XS12	XS-MFC	XS-PIR12	XS-H12	XS-AQ12	XS-TA12	XS-TH12	XS-PIRR	XS-HR	XS-AQR	XS12RE

Note: \*On fan sizes 6/9 up to 5 fans can be controlled. On fan size 12 up to 3 can be controlled.  
 \*\*Do not mix different fan sizes on the same controller.



BASIC FAN UNIT	WINDOW SPACER	SINGLE SPIGOT ADAPTOR	WEATHER TERMINAL	ROOF TERMINAL	INLINE ADAPTOR	WALL FIXING PLATE	PICTURE FRAMING ADAPTOR	EXTENDED FIXING RODS
Motor, impeller and shutter assembly.	Used for exposed site installation. One spacer. Use with weather terminals.	For ducted systems. Replaces internal grille.	For exposed window installations. No fan included.	No fan included.	For use with in-line duct applications.	Used for timber and thin walls, pitched roof and above ceiling. One fixing plate. Used with window kits, spacers and/or weather terminals.	For panel, ceiling or retro installations where uneven walls need to be fixed.	For extending wall kit up to 360mm.
XS6	XS-WS6	XS-SA6	XS-WT6	XS-RT6	XS-IDK6	XS-WFP6	XS-PFA6	XS-EFR
XS9	XS-WS9	XS-SA9	XS-WT9	XS-RT9	XS-IDK9	XS-WFP9	XS-PFA9	XS-EFR
XS12	XS-WS12	XS-SA12	XS-WT12	XS-RT12	XS-IDK12	XS-WFP12	XS-PFA12	XS-EFR

## OPUS 40-60-95 RANGE PERFORMANCE & TECHNICAL INFORMATION

Compact wall and ceiling fan offering high performance with low noise. Duty up to 95l/s available as both single and twin options.



### KEY BENEFITS:

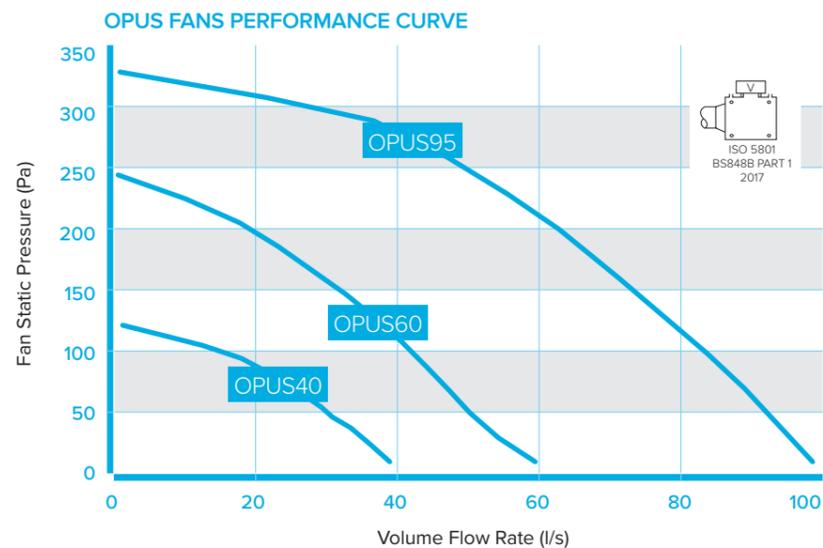
- ▶ **VERY QUIET OPERATION** – UNITS OFFER HIGH PERFORMANCE WITH LOW NOISE LEVELS.
- ▶ **MOST EFFICIENT SYSTEMS** – DC MOTOR DESIGN PROVIDES LOWEST POSSIBLE SPECIFIC FAN POWER IN ITS CLASS, FOR MAXIMUM EFFICIENCY. CONFORMS TO PART L2.
- ▶ **GUARANTEED VENTILATION** – A COMPACT, COST EFFECTIVE TWIN FAN – ALLOWS FOR AUTOMATIC CHANGEOVER TO STANDBY FAN IN EVENT OF FAN FAILURE.
- ▶ **QUICK AND EASY INSTALL** – THE UNIT CAN BE INSTALLED EITHER WALL OR CEILING MOUNTED, WITH OPTION TO BE RECESSED.
- ▶ **SIMPLE TO COMMISSION** – INTEGRAL CONTROL FACILITY ENABLES THE DUTY TO BE PRECISELY SET WITHOUT THE NEED FOR ADDITIONAL CONTROLS.
- ▶ **LOW MAINTENANCE COSTS** – EASY CLEAN FOAM FILTERS PROTECT MOTOR AND FAN ASSEMBLY, REDUCING MAINTENANCE COSTS AND EXTENDING FAN LIFE. FOAM FILTERS FITTED AS STANDARD.

### CODING OPUS40T-ESPF

OPUS 40 T – ES P F F  
1 2 3 4 5 6

### SAMPLE CODING

1. Opus range
2. 40, 60 or 95l/s
3. T – Twin fan  
S – Single fan  
D – Dual fan (achieves 2/3rd duty on failure of one blower)
4. ES - Ecosmart control  
C - Basic speed control
5. R - Run-on timer
6. P - PIR sensor
7. F - Filter



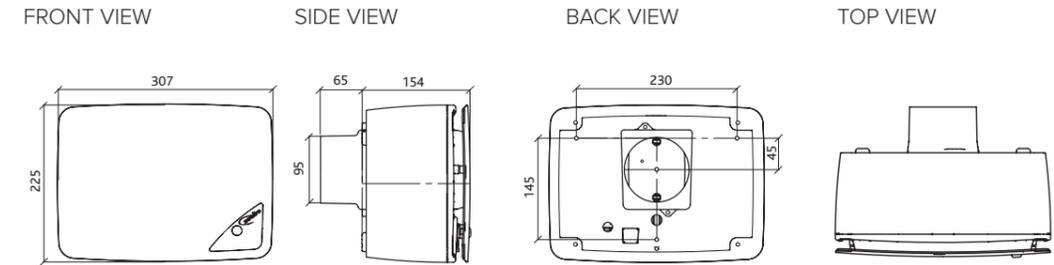
### DIMENSIONS (mm) AND WEIGHT (Kg)

MODEL	L (A)	W (B)	H (C)	SPIGOT	DUCT	WEIGHT
OPUS40/60S	154	307	225	100	95	3.2
OPUS40/60T	154	307	225	100	95	3.6
OPUS95D	154	307	225	100	95	3.6

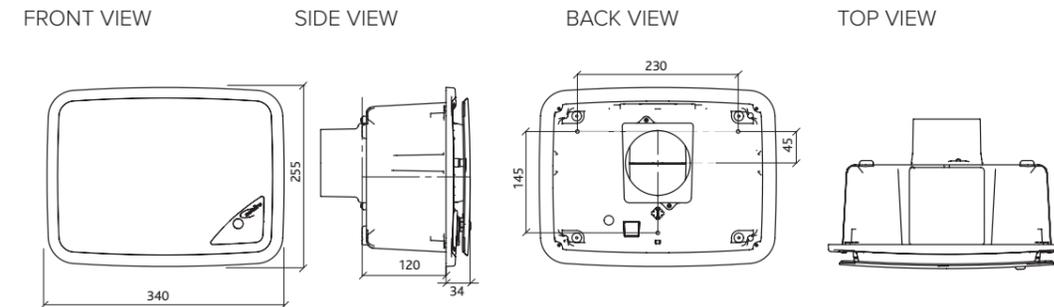
### TECHNICAL DATA

CODE	PHASE	RPM	FLC (A)	dB(A) @3M
OPUS40S/T	1	1800	0.1	35
OPUS60S/T	1	2500	0.32	42
OPUS95D	1	2500	0.6	45

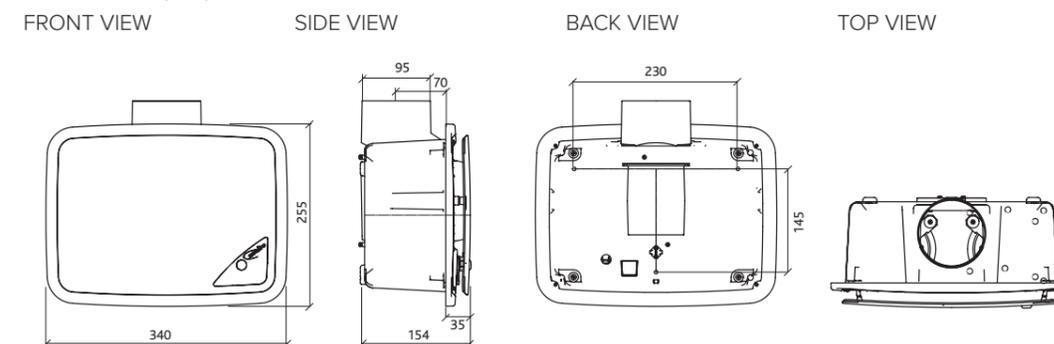
### DIMENSIONS (mm) SURFACE MOUNTED UNIT



### DIMENSIONS (mm) RECESSED MOUNTED UNIT REAR DISCHARGE



### DIMENSIONS (mm) RECESSED MOUNTED UNIT SIDE DISCHARGE



## OPUS 40-60-95 RANGE CONSULTANT SPECIFICATION

### OPERATION

The extract fans shall be as indicated on the drawings and shall be in accordance with the fan schedule in the specification. The vitiated air shall be extracted from each area via ductwork as shown. All necessary ductwork fittings and ancillaries shall be allowed for by the mechanical sub-contractor. The extract fan shall automatically vary its speed as it receives signals from one of the interconnected sensors sited in the rooms being ventilated. When the signal is received the fan shall have the ability to increase speed gradually until the required level is achieved or it will work on a trickle and boost principle i.e. increase ventilation rate from the continuous background rate to the design maximum in one step.

### FAN SPECIFICATION

The fans shall have low energy, high efficiency DC fan/motor assembly with sealed for life bearings.

Motors shall have locked rotor protection to prevent overheating in the event of fan failure. The case shall be 100% recyclable with all parts supplied to enable either surface or recessed mounting. It shall have noise levels and power requirements as detailed in the specification and in accordance with the manufacturer's details.

The unit shall be capable of discharging the air either from the rear of the case or the side via spigots suitable for 100mm diameter ductwork.

For commissioning purposes the unit shall have a miniature control panel mounted in its fascia hidden behind the front cover facilitating high and low speed adjustment (trickle and boost) together with run on timer (1- 60minutes).

The front cover shall be removable without the aid of tools. Any adjustments shall be quickly and easily achieved with a standard screwdriver. The control panel shall also have status indication lamps visible behind the corner "window".

Run and standby versions shall have auto changeover and duty share as standard, the fan shall changeover every twelve hours of run time to maximise the unit's effective life span. All models shall have foam filters as standard.

## OPUS 40-60-95 RANGE CONSULTANT SPECIFICATION

### CONTROL SPECIFICATION

The fan unit shall have the following functions integrally mounted within the fan unit on a purpose made PCB, all such components pre-wired and factory fitted by the manufacturer.

### CONTROL OPTIONS

All models to have power and fan failure indication visible behind the front cover.

Base model – on/off control with facility for continuous background ventilation.

**C** – full speed control of both background and boost ventilation.

**R** – 1-60 minute run-on timer.

**P** – Integrated passive infrared detection to trigger the units to boost.

### ES – ECOSMART CONTROL OFFERING:

- Integrated infinitely variable speed control.
- Integral background ventilation commissioning facility.
- Integral boost ventilation commissioning facility.
- Auto changeover and duty share (twin fan unit only).
- Integral adjustable run-on timer.
- Integral S/L terminal for boost trigger from remote switch, eg. light switch.
- 3no. IDC sockets for interconnection of Ecosmart fans or low voltage sensors using pre-plugged 4-core low voltage cable.
- Multiple fans can be interconnected and run from one or more sensor or controller.
- Remote volt free run and fail status indication.
- Run and fail relays for connection to BMS.
- Fascia mounted fan failure, system status indication as follows:
  - Fan 1 status.
  - Fan 2 status.
  - Power to fan.
  - System standby.
  - 5 years warranty.

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

### INSTALLATION

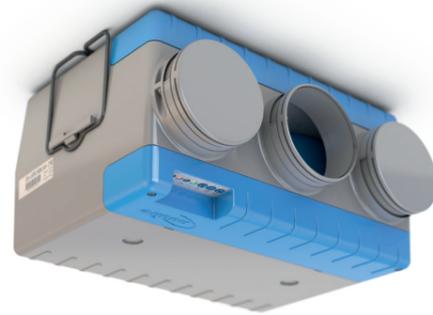
By the appointed contractor.

Mechanical installation requires mounting of the extract unit in the designated position and connection to the associated duct work. Electrical installation requires the provision and connection of single phase electrical supply at the fan.

The manufacturer's recommendations should be observed at all times.

## ES-OPUSDC PERFORMANCE & TECHNICAL INFORMATION

Compact inline fan offering high performance with low noise. Suited to ceiling voids, the ES-OPUSDC has easy commissioning for a simple, guaranteed ventilation solution.



### KEY BENEFITS:

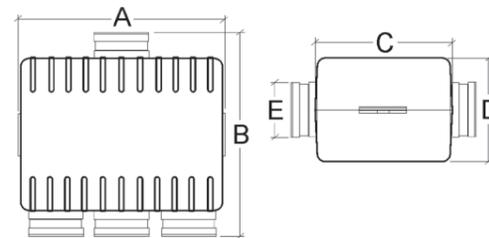
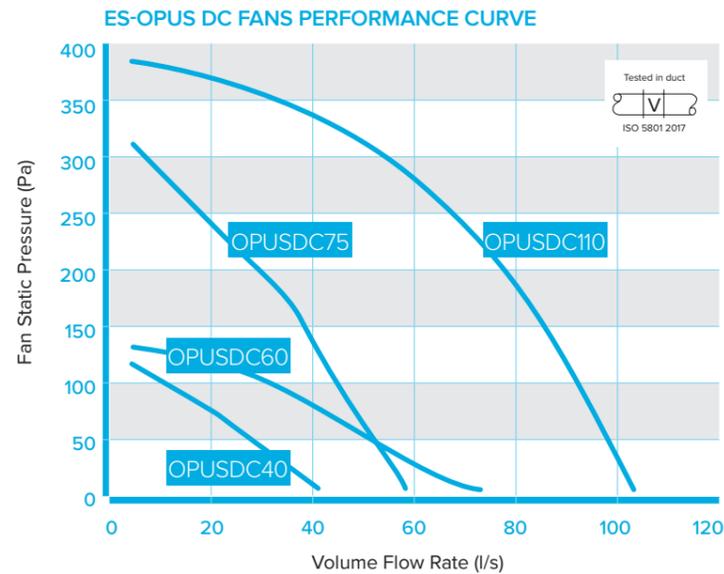
- ▶ **VERY QUIET OPERATION** – UNITS OFFER HIGH PERFORMANCE WITH LOW NOISE LEVELS.
- ▶ **GUARANTEED VENTILATION** – TWIN FANS ALLOW FOR AUTOMATIC CHANGEOVER TO STANDBY FAN IN EVENT OF FAN FAILURE.
- ▶ **QUICK AND EASY INSTALL** – QUICK RELEASE BRACKET WITH NO NEED FOR ADDITIONAL FIXINGS.
- ▶ **SIMPLE TO COMMISSION** – INTEGRAL CONTROL FACILITIES ENABLES THE DUTY TO BE PRECISELY SET WITHOUT THE NEED FOR ADDITIONAL CONTROLS.
- ▶ **SIMPLE CONTROLS** – A CHOICE OF 'ON-BOARD' AND 'REMOTE' CONTROL OPTIONS AVAILABLE, INCLUDING ECOSMART ENERGY EFFICIENT CONTROLS.

### CODING ES-OPUSDC40-M

ES - OPUSDC 40 - 2 M  
1 2 3 4 5 6

### SAMPLE CODING

1. Ecosmart control
2. Opus range
3. DC = direct current, low watt
4. 40 = unit size
5. 2 = Twin model  
No reference = Single fan
6. M = Duct mounted



### DIMENSIONS (mm) AND WEIGHT (Kg)

MODEL	A	B	C	D	E	WEIGHT
ES-OPUSDC	367	320	250	184	100	3

### TECHNICAL DATA

CODE	PHASE	FLC (A)	dB(A) @3M
ES-OPUSDC40	1	0.14	29
ES-OPUSDC60	1	0.32	34
ES-OPUSDC110	1	0.46	37

## ES-OPUSDC CONSULTANT SPECIFICATION

### OPERATION

The extract fans shall be as indicated on the drawings and shall be in accordance with the fan schedule in the specification. The vitiated air shall be extracted from each area via ductwork as shown. All necessary ductwork fittings and ancillaries shall be allowed for by the mechanical sub-contractor. The extract fan shall automatically vary its speed as it receives signals from one of the interconnected sensors sited in the rooms being ventilated. When the signal is received the fan shall have the ability to increase speed gradually until the required level is achieved or it will work on a trickle and boost principle i.e. increase ventilation rate from the continuous background rate to the design maximum in one step.

### FAN SPECIFICATION

The fans shall have low energy, high efficiency DC fan/motor assembly with sealed for life bearings, mounted within an acoustically lined, 100% recyclable plastic case, ensuring a very efficient quiet solution. It shall have noise levels and power requirements as detailed in the specification and in accordance with the manufacturer's details.

The unit shall incorporate a quick release mounting bracket. The bracket shall enable the unit to be mounted horizontally or vertically, enabling the unit to be removed without the aid of specialist tools. The depth of the unit shall not be greater than 190mm (including mounting bracket). The unit shall be constructed with one removable panel allowing quick and easy access to the electrical connections.

For commissioning purposes the unit shall have a miniature control panel mounted in its fascia facilitating high and low speed adjustment (trickle and boost) together with run on timer (1- 60minutes) and shall be accessible without the need of removing any access panels or the unit itself. Any adjustments shall be quickly and easily achieved with a standard screwdriver. The control panel shall also have status indication lamps on the underside of the unit.

Run and standby versions shall have auto changeover and duty share as standard, the fan shall changeover every twelve hours of run time to maximise the unit's effective life span.

Three number 100 diameter circular spigots on the system side of the unit are available to allow the ventilation of a number of rooms or points from a single unit. Two of the spigots have blanks fitted which are easily removed to facilitate the interconnection of ductwork.

### CONTROL SPECIFICATION

The fan unit shall have the following functions integrally mounted within the fan unit on a purpose made PCB, all such components pre-wired and factory fitted by the manufacturer:

- Integrated infinitely variable speed control.
- Integral background ventilation commissioning facility.
- Integral boost ventilation commissioning facility.
- Auto changeover and duty share (twin fan unit only).
- Integral adjustable run on timer.
- Integral S/L terminal for boost trigger from remote switch, eg. light switch.
- 4no. IDC sockets for interconnection of Ecosmart fans or low voltage sensors using pre-plugged 4-core low voltage cable. Multiple fans can be interconnected and run from one or more sensor or controller.
- Remote volt free run and fail status indication.
- Fascia mounted fan failure, system status indication as follows:
  - Fan 1 status.
  - Fan 2 status.
  - Power to fan.
  - System standby.
  - 5 year warranty.

Fan shall be the ES-OPUSDC type unit as manufactured by Nuaire.

The user control and low voltage sensors are supplied complete with a 10m length of low voltage, pre-plugged cable to facilitate their interconnection (other length of cables available).

The manufacturer's recommendations should be observed at all times.



## MEVDC PERFORMANCE & TECHNICAL INFORMATION

Centralised multi-room extract ventilation system with low-energy DC motors and choice of integral controls and sensors.

### KEY BENEFITS:

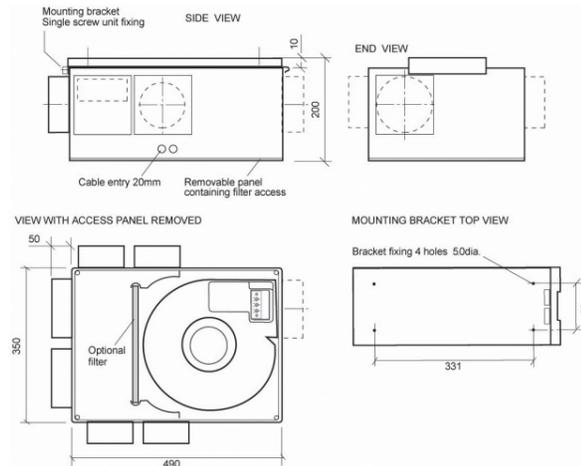
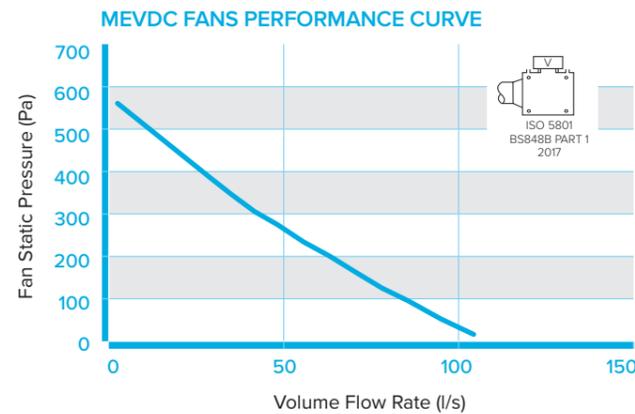
- **ULTRA QUIET AND EFFICIENT VENTILATION** – LATEST LOW-WATT DC TECHNOLOGY PROVIDES QUIET OPERATION WITH REDUCED POWER CONSUMPTION, OPERATING COSTS AND LIFE CYCLE COSTS.
- **COMPACT WITH HIGH PERFORMANCE** – DUTY RANGE UP TO 98L/S AND ONLY 190MM DEEP CASE SIZE.
- **QUICK AND EASY INSTALLATION** - UNITS CAN BE FIXED AT ANY PLANE ENSURING QUICK INSTALLATION.
- **EASY COMMISSIONING** – ECOSMART COMPATIBLE WITH VARIABLE SPEED SELECTION ALLOWING FOR EXACT DESIGN SELECTION.
- **ADDED STRENGTH** – ABS MOULDED CASE AND LID PROVIDES LONGER LIFE.

### CODING MEVDC-ESG2LHD4

MEVDC – ES G2 L H D4  
1 2 3 4 5 6 7

### SAMPLE CODING

1. MEV - MEV range
2. DC - motor current
3. ES – Ecosmart compatible
4. G2 – filter
5. L – Lined case
6. H – Humidistat
7. D4 – damper kit



### SPIGOT/DAMPER KITS

CHOOSE FROM S1-D4	CODE
Kit 1 - 4 x 100 circular & 2 x 125 circular spigots	S1
Kit 2 - 6 x rectangular spigots 110 x 54mm	S2
Kit 3 - 6 x rectangular dampers 110 x 54mm	D2
Kit 4 - 4 x 100 & 2 x 125 circular damper	D4

### DIMENSIONS (mm) AND WEIGHT (Kg)

MODEL	A	B	C	WEIGHT
MEVDC	490	350	200	5

### TECHNICAL DATA

CODE	PHASE	RPM	FLC (A)	dB(A) @3M
MEVDC	1	2900	0.38	34

## MEVDC CONSULTANT SPECIFICATION

### FAN SPECIFICATION

The unit shall be designed specifically for incorporation within a system designed to comply with the requirements of Part F Building Regs. Ducting and grilles forming part of the system are specified elsewhere.

The unit shall be manufactured by a BSI Registered Firm with ISO 9000 certification. The unit's casing shall be of ABS, Moulded plastic.

The unit shall incorporate a low profile single point mounting bracket for horizontal or vertical mounting of the unit. When installed the unit shall not project any more than 190mm from the surface onto which it installed.

Air discharge from the unit shall be via a tapered spigot for easy connection to ducting. The unit shall be capable of multiple air inlets formatting. The unit casing shall have the facility to allow the connection, via tapered air inlet spigots supplied with one off 125mm diameter spigot.

The unit shall be constructed with one removable panel allowing full maintenance access. The unit shall incorporate a fully speed adjustable (note: stepped speed control shall not be acceptable) low energy, high efficiency DC fan/motor assembly with sealed for life bearings designed to operate continuously at a pre-set 'background' design airflow rate with the ability to increase to a pre-set 'boost' design airflow rate as and when required. It shall operate up to an ambient temperature of 40°C and be fitted with a locked rotor protection device.

The impeller should be a centrifugal backward curved type, dynamically balanced mounted directly onto the motor.

The unit shall incorporate electrical connections to allow for the unit's "boost" airflow to be triggered by a switched live signal, 230V.





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