

# D SERIES CATALOGUE





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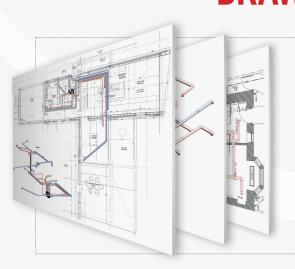


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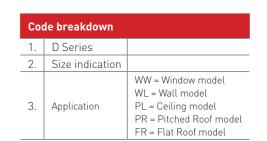
## SEND US YOUR PROJECT DETAILS AND RECEIVE:

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- ► A full BOM (bill of materials)
- ► Scheduled, nation-wide delivery
- ▶ Ongoing technical support when our product is on site

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## **BASIC FAN SELECTION**

Please see the following step by step guide on how to select a fan unit. The extract rates are given as an example only, and the suitability of the product to meet all noise and Building Regulations for the proposed application should be confirmed. This is a basic guide and does not include selections based on specific fan power requirements under Part L of the Building Regulations etc. All noise and Building Regulations for the proposed application including Part F, and specifically Part B (with reference to building height) should be confirmed.



Air changes per hour

DX 6 WW

1 2 3

## Required information: Room size | Application

## Air change rate guide for various applications

Application	Air changes per hour
Banks	4 to 6
Cafés / coffee bars	10 to 12
Cellars	3 to 10
Changing rooms	6 to 10
Cinemas / theatres	6 to 10
Conference rooms	8 to 10
Dance halls	10 to 12
Dark rooms	10 to 15
Dental surgeries	12 to 15
Entrance halls	3 to 5
Factories / workshops	8 to 10
Garages	6 to 10
Gymnasiums	6 to 8
Hospital wards	6 to 8

Kitchens – commercial	15 to 30
Laundries	10 to 15
Libraries	3 to 4
Offices	4 to 6
Public house bars	6 to 10
Restaurants	10 to 15
School rooms	4 to 6
Shops / supermarkets	8 to 10
Showers / bathrooms	15 to 20
Stores / warehouses	3 to 6
Swimming baths	15 to 20
Toilets – public	6 to 8
Utility rooms	15 to 20

**Application** 

## How to calculate the required flowrate

### What is the room volume m<sup>3</sup>?

Example – 10m long x 5m wide x 2.5m high = 125m<sup>3</sup>

### What is the application?

Example - Wall mounted in an Office. six air changes necessary due to size (see table above)

### What is the flowrate calculation?

- ► Room Volume m³ x air change = 750m³/h
- To calculate the flow rate as m<sup>3</sup>/s divide your answer by 3600 Finally multiply the m<sup>3</sup>/s figure by 1000. This will leave you with your flow rate as I/s.

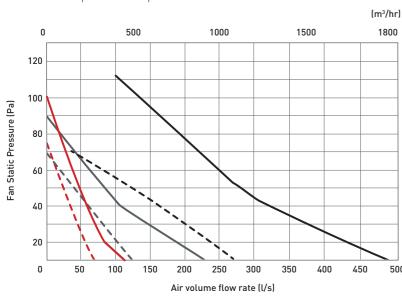
 $125m^3 \times 6 = 750m^3/h$ 750 ÷ 3600 = 0.208m3/s 0.208m3/s x 1000 = 208l/s

## D SERIES WINDOW (WW) FANS

Available as kits or basic fan modules with adaptable ancillaries such as window spacers and weather terminals, our D Series Window fans can be part of a new install or refurbishment project.

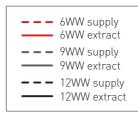
## D Series 6. 9 and 12 inch Window Fans

Performance represents complete fan kit









## **Electrical and sound**

	Noise/sound levels (dBA @ 3m)				
Code	Extract	Extract economy	Supply	Supply economy	
DX6WW	42	31	43	32	
DX9WW	41	30	43	32	
DX12WW	47	36	48	37	

Input power (watts)			
Standard	Economy		
38	20		
50	37		
100	70		

## **External Static Pressure (Pa)**

DX6WW Extract	0	20	40	60
Air Flowrate (l/s)	121	79	52	34
Input Power (W)	42	43	46	48
SFP (W/l/s)	0.3	0.6	0.9	1.4

DX9WW Extract	0	20	40	60
Air Flowrate (l/s)	226	160	103	61
Input Power (W)	54	54	57	62
SFP (W/l/s)	0.2	0.3	0.6	1

DX12WW Extract	0	20	40	60
Air Flowrate (l/s)	498	413	317	250
Input Power (W)	110	110	113	117
SFP (W/l/s)	0.2	0.3	0.4	0.5

## D SERIES Window (WW) fan kits







Internal Grille

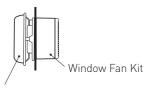
Fan Module

Fan Spacer

Sealing External Plate Grille

## **Typical installation**

Exposed site window installation (use with Window Fan Kit)



Weather cowl can replace the external grille and window sealing plate

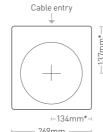
## **Dimensions**

Front view

Rear view



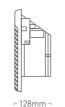
\_\_\_\_ 269mm —



\*To centre of 'duct'

Required window aperture = 
184mm dia

Side view



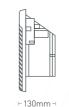
### 9" Fan DX9WW



⊢171mm\*⊣

Cable entry

\*To centre of 'duct' Required window aperture = 260mm dia



### 12" Fan DX12WW



Cable entry

Table 9172

-206mm\* -

\*To centre of 'duct'
Required window aperture = 337mm dia



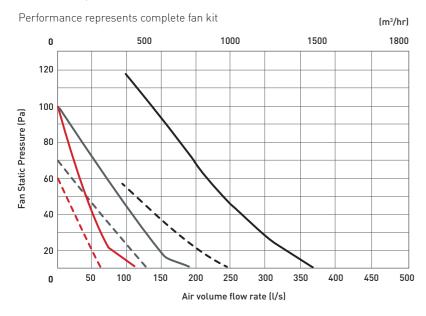
⊦ 169mm -

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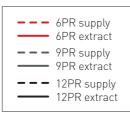
## **D SERIES PITCHED ROOF (PR) FANS**

The low profile Pitched Roof kits are designed to be installed on angular roofs and suitable for all weather exposure.

## D Series 6, 9 and 12 inch Pitched Roof Fans







## **Electrical and sound**

	Noise/sound levels (dBA @ 3m)				
Code	Extract	Extract economy	Supply	Supply economy	
DX6PR	42	31	45	34	
DX9PR	41	30	43	32	
DX12PR	49	38	48	37	

	Input power (watts)				
٠	Economy				
	38	38			
	50	37			
_	100	70			

## **External Static Pressure (Pa)**

DX6PR Extract	0	20	40	60
Air Flowrate (l/s)	112	74	51	36
Input Power (W)	42	43	46	48
SFP (W/l/s)	0.4	0.6	0.9	1.3

DX9PR Extract	0	20	40	60
Air Flowrate (l/s)	180	133	100	70
Input Power (W)	54	55	58	61
SFP (W/l/s)	0.3	0.4	0.6	0.9

DX	12PR Extract	0	20	40	60
Air	Flowrate (l/s)	358	305	258	214
Inp	out Power (W)	107	109	111	113
SF	P (W/l/s)	0.3	0.4	0.4	0.5

(, 4-)				
DX9PR Extract	0	20	40	60
Air Flowrate (l/s)	180	133	100	70
Input Power (W)	54	55	58	61

## **Typical installation**

Pitched Roof Cowl

Fan Spacer

Fan Module

Internal Grille

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

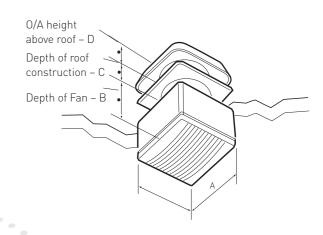
D SERIES Pitched Roof (PR) fan kits



## **Dimensions (mm)**

D SERIES	6	9	12
AxA	272x272	342x342	420x420
В	161	158	172
С	150	150	150
D	170	180	185
kg	6.3	9.1	11.8

A = Opening size, B = Overall size



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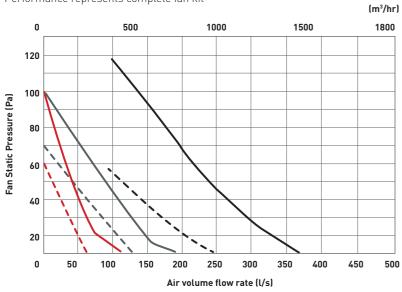
## D SERIES FLAT ROOF (FR) FANS



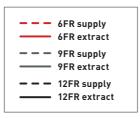
Complementing the Pitched Roof offering, these fan kits ensure the D Series portfolio is comprehensive and practical in application.

## D Series 6, 9 and 12 inch Flat Roof Fans

Performance represents complete fan kit







## **Electrical and sound**

	Noise/sound levels (dBA @ 3m)				
Code	Extract	Extract economy	Supply	Supply economy	
DX6FR	42	31	45	34	
DX9FR	41	30	43	32	
DX12FR	49	38	48	37	

Input power (watts)				
Standard	Economy			
38	38			
50	37			
100	70			

## **External Static Pressure (Pa)**

DX6FR Extract	0	20	40	60
Air Flowrate (l/s)	112	74	51	36
Input Power (W)	42	43	46	48
SFP (W/l/s)	0.4	0.6	0.9	1.3

DX9FR Extract	0	20	40	60
Air Flowrate (l/s)	180	133	100	70
Input Power (W)	54	55	58	61
SFP (W/l/s)	0.3	0.4	0.6	0.9

DX12FR Extract	0	20	40	60
Air Flowrate (l/s)	358	305	258	214
Input Power (W)	107	109	111	113
SFP (W/l/s)	0.3	0.4	0.4	0.5

## **Dimensions (mm)**

D SERIES	6	9	12
AxA	272x272	342x342	420x420
В	161	158	172
С	150	150	150
D	170	180	185
kg	6.3	9.1	11.8

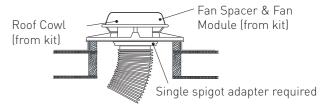
A = Opening size, B = Overall size

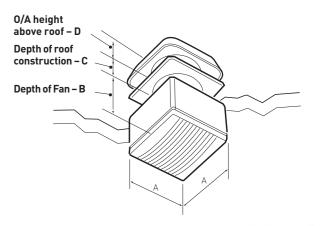
## D SERIES Flat Roof (FR) fan kits



## **Typical installation**

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





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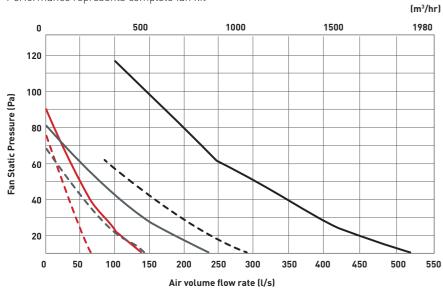
## **D SERIES** WALL (WL) FANS

An ultra quiet wax thermo actuator combines with highly innovative motor and impeller technology to produce one of the quietest wall fans available.

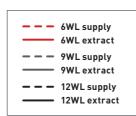


## D Series 6. 9 and 12 inch Wall Fans

Performance represents complete fan kit







## **Electrical and sound**

	Noise/sound levels (dBA @ 3m)					
Code	Extract	Extract economy	Supply	Supply economy		
DX6WL	42	31	45	34		
DX9WL	45	34	45	34		
DX12WL	47	36	47	36		

Input pov	Input power (watts)				
Standard	Economy				
38	20				
50	37				
100	70				

## **External Static Pressure (Pa)**

DX6WL Extract	0	20	40	60
Air Flowrate (l/s)	131	110	65	38
Input Power (W)	42	42	44	48
SFP (W/l/s)	0.3	0.4	0.7	1.3

		1	ı	1	ı
	DX9WL Extract	0	20	40	60
	Air Flowrate (l/s)	236	180	105	60
	Input Power (W)	54	54	57	62
	SFP (W/l/s)	0.2	0.3	0.5	1

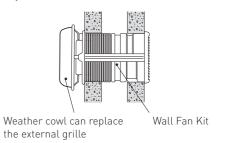
DX12WL Extract	0	20	40	60
Air Flowrate (l/s)	530	465	344	265
Input Power (W)	111	110	112	116
SFP (W/l/s)	0.2	0.2	0.3	0.4

## D SERIES Wall (WL) fan kits

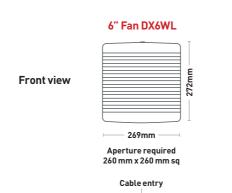


## **Typical installation**

Exposed site wall installation (use with Wall Fan Kit)



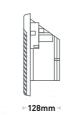
## **Dimensions (mm)**



Rear view

⊢134mm\*-\*To centre of 'duct'

Side view



## 9" Fan DX9WL



Aperture required 330 mm x 330 mm sq

Cable entry ⊢171mm\*-\*To centre of 'duct'

## 12" Fan DX12WL



Aperture required 410 mm x 410 mm sq

Cable entry



\*To centre of 'duct'



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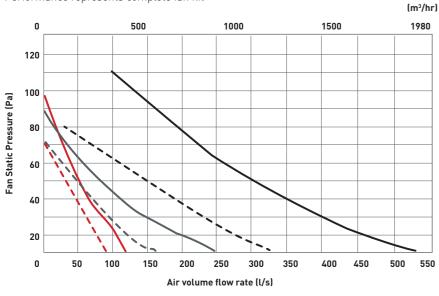
## **D SERIES CEILING (PL) FANS**

A discreet design, suitable for solid or panel ceilings. These fans can be installed with our Roof or Weather Terminals, allowing optional exhaust points for flexible application.

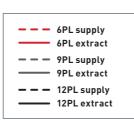


## D Series 6, 9 and 12 inch Ceiling Fans









## **Electrical and sound**

	Noise/sound levels (dBA @ 3m)				
Code	Extract	Extract economy	Supply	Supply economy	
DX6PL	42	31	45	35	
DX9PL	41	30	43	32	
DX12PL	49	38	48	37	

Input power (watts)		
Standard	Economy	
38	20	
50	37	
100	70	

## **External Static Pressure (Pa)**

DX6PL Extract	0	20	40	60
Air Flowrate (l/s)	119	76	50	32
Input Power (W)	42	43	46	49
SFP (W/l/s)	0.4	0.6	0.9	1.5

DX9PL Extract	0	20	40	60
Air Flowrate (l/s)	247	196	110	60
Input Power (W)	55	54	57	62
SFP (W/l/s)	0.2	0.3	0.5	1

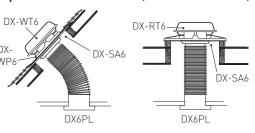
DX12PL Extract	0	20	40	60
Air Flowrate (l/s)	544	472	329	260
Input Power (W)	111	110	113	116
SFP (W/l/s)	0.2	0.2	0.3	0.4

## D SERIES Ceiling (PL) fan kits



## **Typical installation**

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



## **Dimensions (mm)**

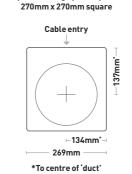
Front view

Rear view

## 6" Fan DX6PL



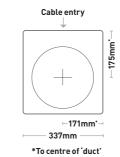
Required ceiling / panel aperture



Side view

# 9" Fan DX9PL

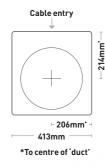
Required ceiling / panel aperture





## 12" Fan DX12PL

Required ceiling / panel aperture



## **FAN ANCILLARIES**

		Integral sensors			Remote sensors	
Unit size	Speed control	PIR	Humidistat	Timer	Humidistat	
Description	With Economy 50% setting, extract and supply on/off switch.	Passive InfraRed technology to detect movement. Complete with run-on timer 2-40 mins	Relative Humidity setting between 30- 90%. Complete with run-on timer 2-40 mins.	Run-on timer 2-40 mins	Relative Humidity setting between 30-90%. Complete with run-on timer 2-40 mins.	
Wall						
6	DX-CON DX-PIR6		DX-H6	DX-T6	DX-RH	
9	DX-CON	DX-PIR9	DX-H9	DX-T9	DX-RH	
12	DX-CON	DX-PIR12	DX-H12	DX-T12	DX-RH	
Window						
6	DX-CON DX-PIR6		DX-H6	DX-T6	DX-RH	
9	DX-CON DX-PIR9		DX-H9	DX-T9	DX-RH	
12	DX-CON	DX-PIR12	DX-H12	DX-T12	DX-RH	
Ceiling						
6	DX-CON	DX-PIR6	DX-H6	DX-T6	DX-RH	
9	DX-CON	DX-PIR9	DX-H9	DX-T9	DX-RH	
12	DX-CON	DX-PIR12	DX-H12	DX-T12	DX-RH	
Flat Roof						
6	DX-CON	DX-PIR6	DX-H6	DX-T6	DX-RH	
9	DX-CON	DX-PIR9	DX-H9	DX-T9	DX-RH	
12	DX-CON	DX-PIR12	DX-H12	DX-T12	DX-RH	
Pitch Roof						
6	DX-CON	DX-PIR6	DX-H6	DX-T6	DX-RH	
9	DX-CON	DX-PIR9	DX-H9	DX-T9	DX-RH	
12	DX-CON	DX-PIR12	DX-H12	DX-T12	DX-RH	

- ▶ Up to five fans (size 6"/9") can be controlled by one DX-CON. Up to two fans (size 12") can be controlled by one DX-CON.
- Do not mix different fan sizes on the same controller.



















Basic fan unit	Window spacer	Single spigot adapter	Weather terminal	Roof terminal	Wall fixing plate	Picture frame adapter	DX-WD	DX-LG
Fan module, internal grille	Used for exposed site installation 1 spacer. Use with weather terminals	For ducted systems. To be mounted onto front of DX-WS	For exposed window installations. Use with DX-WS	No fan included.	Used for timber and thin walls, pitched roof and above ceiling. One fixing plate. Used with window kits spacers &/or weather terminals	For panel, ceiling or retro installations where uneven walls need to be fixed	Duct wall liner	Fixed blade external louvred grille
Wall cont.								
DX6	DX-WS6	DX-SA6	DX-WT6	N/A	N/A	DX-PF6	DX-WD	DX-LG
DX9	DX-WS9	DX-SA9	DX-WT9	N/A	N/A	DX-PF9	DX-WD	DX-LG
DX12	DX-WS12	DX-SA12	DX-WT12	N/A	N/A	DX-PF12	DX-WD	DX-LG
Window cont.								
DX6	DX-WS6	DX-SA6	DX-WT6	N/A	DX-WP6	N/A	N/A	DX-LG
DX9	DX-WS9	DX-SA9	DX-WT9	N/A	DX-WP9	N/A	N/A	DX-LG
DX12	DX-WS12	DX-SA12	DX-WT12	N/A	DX-WP12	N/A	N/A	DX-LG
Ceiling cont.								
DX6	N/A	DX-SA6	DX-WT6	DX-RT6	DX-WP6	DX-PF6	N/A	N/A
DX9	N/A	DX-SA9	DX-WT9	DX-RT9	DX-WP9	DX-PF9	N/A	N/A
DX12	N/A	DX-SA12	DX-WT12	DX-RT12	DX-WP12	DX-PF12	N/A	N/A
Flat Roof cont.								
DX6	N/A	DX-SA6	N/A	DX-RT6	DX-WP6	DX-PF6	N/A	N/A
DX9	N/A	DX-SA9	N/A	DX-RT9	DX-WP9	DX-PF9	N/A	N/A
DX12	N/A	DX-SA12	N/A	DX-RT12	DX-WP12	DX-PF12	N/A	N/A
Pitch Roof cont.								
DX6	N/A	DX-SA6	DX-WT6	N/A	DX-WP6	DX-PF6	N/A	N/A
DX9	N/A	DX-SA9	DX-WT9	N/A	DX-WP9	DX-PF9	N/A	N/A
DX12	N/A	DX-SA12	DX-WT12	N/A	DX-WP12	DX-PF12	N/A	N/A

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## **D SERIES CONTROLS**

## Multi-fan control

### Fitting Remote Controller DX-CON or Remote Sensors (optional)

The DX-CON Multi-Fan Control provides supply or extract, variable speed and automatic or manual switching of several

The DX-CON should be positioned at least 1.5m above the floor and away from direct heat sources e.g. radiators.

- ▶ Up to five fans (size 6"/9") can be controlled by one DX-CON.
- ▶ Up to two fans (size 12") can be controlled by one DX-CON.
- Do not mix different fan sizes on the same controller.

Code	Description	Length (mm)	Depth (mm)	Height (mm)
DX-CON	Multi-Fan Remote Control	153	60	87

**Speed Control -** with 'Economy' (50%) setting, extract and supply, on/off switches.

## Typical code: DX-CON

If two x 12 inch fans or five x six or 9 inch fans are used in the same operating mode in the same room they should all be controlled from the same DX-CON speed control. This avoids the possibility of one fan (if speed controlled at a lower flow rate) being stalled by the other fan(s). Adequate make-up air provision sufficient to provide ventilation in accordance with building regulations is required in all rooms. This should be checked during commissioning with all fans in the same room running together in all possible configurations.

The automatic shutters, motor bearings should be frequently inspected and maintained to ensure they open fully/operate

Use of an RCD and fused spur with 1A, Bussmann TDC180, BS1362, fuse (Farnell order no: 1123029) for 1 fan or 2A, Bussmann TDC180, BS1362 fuse (Farnell order no: 1123032) for 2 or 3 fans is recommended. Always confirm airflow direction before commissioning.

## **Integral sensors**

Fan size	PIR	Humidistat	Timer
6	DX-PIR6	DX-H6	DX-T6
9	DX-PIR9	DX-H9	DX-T9
12	DX-PIR12	DX-H12	DX-T12



## Remote sensors

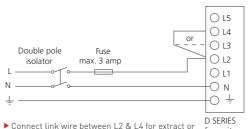
Fan size	Humidistat
6	DX-RH
9	DX-RH
12	DX-RH

The DX-RH remote humidity sensor should be positioned at least 1.5m above the floor and away from direct heat sources e.g. radiators.



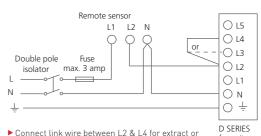
## **WIRING**

## Fan operated by On/Off switch



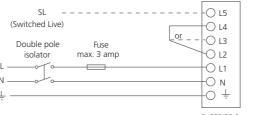
- ► Connect link wire between L2 & L3 for supply.

### Basic fan operated by Remote Sensor



- ► Connect link wire between L2 & L3 for supply.

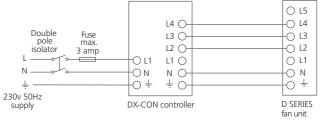
### Fan operated by Integral Sensor



D SERIES fan unit

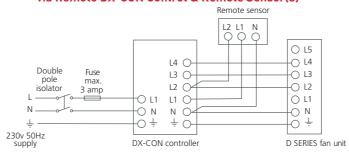
- Connect link wire between L2 & L4 for extract or
- ► Connect link wire between L2 & L3 for supply.
- ▶ Connect switched live signal to L5 for integral timer, module.

## Supply / extract fan operated via Remote DX-CON Control



- ▶ Remote switch may be set: On / Off, Extract / Supply,
- ► Economy / Std. (variable speed), Auto / Manual.

## Supply / extract fan operated via Remote DX-CON Control & Remote Sensor(s)

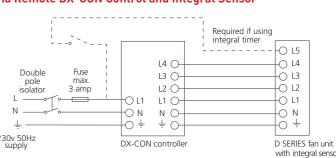


- ▶ Remote switch may be set: On / Off, Extract / Supply, Economy / Std. (variable speed), Auto / Manual.
- ▶ One or more Remote Sensors may be wired in parallel to one DX-CON Control.

### Note: Multi-fan options

▶ Up to five fans (size 6" / 9") can be controlled by one DX-CON. Up to two fans (size 12") can be controlled by one DX-CON. Do not mix different fan sizes

### Supply / extract fan operated via Remote DX-CON Control and Integral Sensor

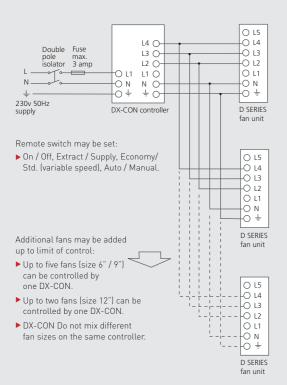


- ▶ Remote switch may be set: On / Off, Extract / Supply, Economy / Std. (variable speed), Auto / Manual.
- ► Maximum one Integral Sensor per fan 6/9/12 denotes unit size identity.
- ► Humidity Sensor: DX-H6/9/12,
- ► Passive Infra Red Sensor: DX-PIR6/9/12, ► Run on Timer: DX-T6/9/12.
- A single sensor will switch all fans if more than one fan is being operated by a single DX-CON controller.

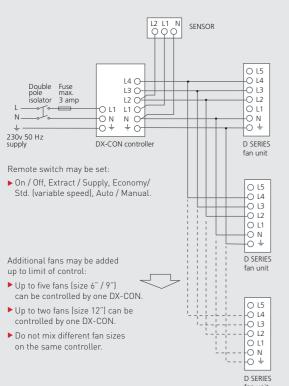
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## WIRING — MULTIPLE FANS

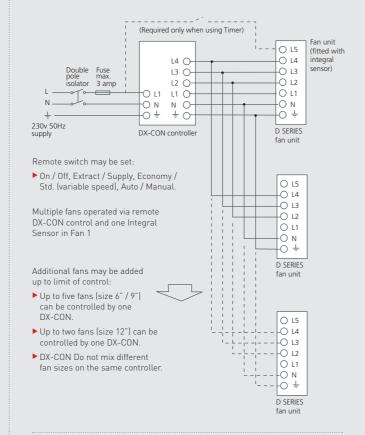
### Multiple fans operated via remote DX-CON control



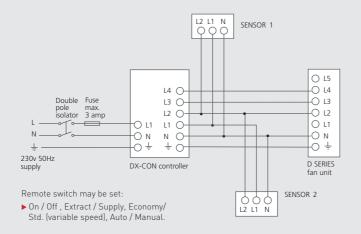
## Multiple fans operated via remote DX-CON control and a Remote Sensor



## Multiple fans operated via remote DX-CON control and one Integral Sensor in Fan 1



## Fan operated using remote DX-CON control and a Multiple Remote Sensor



## **CONSULTANT SPECIFICATION**

## **Fan description**

Fans shall be located in the positions indicated on the drawings and in accordance with the relevant fan schedule.

The fan shall be of the D SERIES 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 60°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. DX-CON (up to 5 fans in sizes 6 & 9, up to 2 fans size 12).

Fans shall be reversible via reversing switch on DX-CON fan controller.

Fan to have a manufacturer's 2 year warranty.

Fan to be of the D SERIES type as manufactured by Domus Ventilation.

## Fan control option

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

## **Integrated control options:**

- ▶ DX-T(size) Run-on timer, adjustable between 2-40 minutes
- ► DX-H(size) Humidity sensor (30-90%). Includes run-on timer 2-40 minutes
- ▶ DX-PIR(size) PIR sensor, includes run-on timer 2-40 minutes.

## **Remote control options:**

- ▶ DX-RH Humidity sensor 30-90%. Includes run-on timer 2-40 minutes
- ► Anti-tamper security strap
- ► DX-CON controller incorporating economy switch, reversing switch and rotary speed control.

Where indicated the fans shall be interlinked and controlled from 1No. DX-CON (up to five fans in sizes 6 & 9, up to two fans size 12).

Do not mix different fan sizes with same controller.

Fan, integrated controls or associated sensors/controllers shall be as manufactured by Domus Ventilation all with a 2 year warranty.

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

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