# **OPUS PLUS TWINFANS**

COMPACT & POWERFUL, IDEAL FOR LARGER ROOM APPLICATIONS
WHILST MAINTAINING LOW NOISE LEVELS.





# BENEFITS

### **COMPACT & POWERFUL**

Small design, high performance up to 150I/s - ideal for larger room applications.

## **CONTINUOUS VENTILATION**

Twin fans allow for automatic changeover to stand by fan in event of fan failure. They also feature auto duty share.

# **VERY QUIET OPERATION**

Acoustically treated case and 'on board' speed control offers high performance with low noise levels.

## SIMPLE COMMISSIONING

Both high and low speeds can be easily adjusted and set to the design requirements.

## **INCREASED LIFECYCLE**

Fans automatically change over to standby every 12 hours of run time, increasing units overall lifecycle.

### **LOW MAINTENANCE COST**

Easy clean filters protect motor and fan assembly, reducing maintenance costs and extending fan life.

# **HEALTHY ATMOSPHERE**

MInimum fan speed can easily be adjusted between 0% and 50% for continuous background ventilation without wasting motor power. Enabling background ventilation to be provided.

### **CONTROLLABILITY**

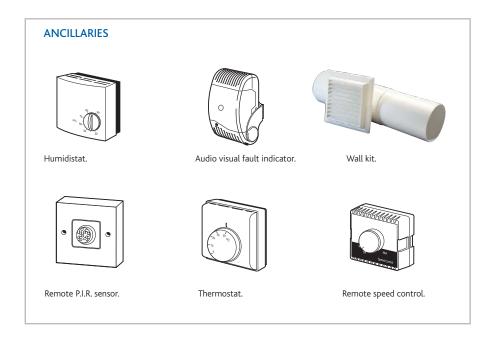
A choice of 'on-board' and 'remote' control options are available.

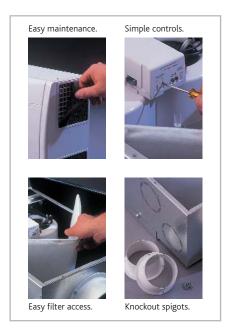
## SPEED CONTROL INCLUDED

All units has speed control included as standard to provide a packaged solution.

### WARRANTY

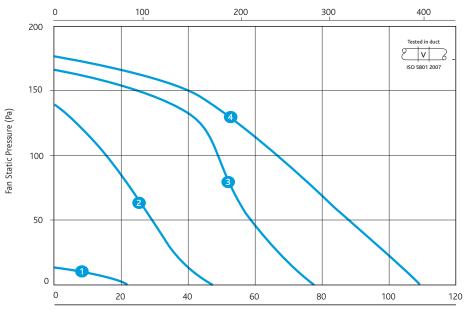
Opus Plus have a 3 year warranty.





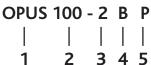
### **PERFORMANCE - OPUS PLUS FANS**

# Opus 100 - Single and Twin Fans



Air volume flow rate (l/s)

**Code Descriptions** 

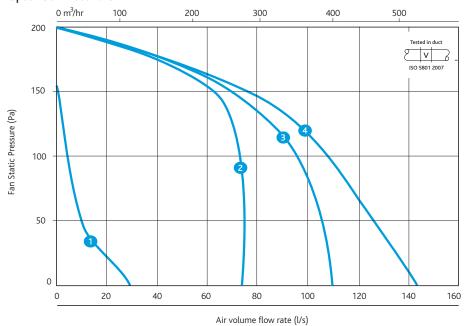


- 1. Opus-Plus range
- 2. Duty indication:
  - 100 = 100 l/s
  - 150 = 150 l/s
- 3. 2 = Twin fan

No reference = Single fan.

- 4. Unit application:
  - B = Surface mounted
  - M = Duct mounted
- 5. P = integral PIR. Option for surface mounted models only

Opus 150 - Dual Fans



Note: Speeds are 25-50% (1 & 2) 75-100% (3 & 4). Curves are for indication only.

Opus 150 - In event of fan failure, the second fan will continue to run. Performance will be as Opus 100.

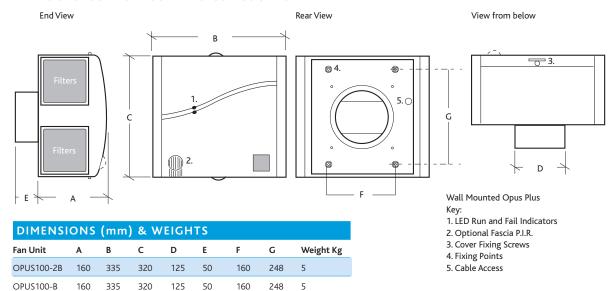


# **PERFORMANCE - OPUS PLUS FANS**

ELEC	TRICAL &	SOUND										
	3 Surface Mount											
Curve	Fan Code	Speed Control Setting	Input Power (watts)	FLC amps			s (dB re 1pW requency (Hz 500	•	2K	4K	8K	dBA @ 3m
1	OPUS100	25%	24	0.10	28	27	32	27	19	10	4	13
2	OPUS100	50%	36	0.15	43	42	48	42	34	25	20	28
3	OPUS100	75%	44	0.19	51	50	56	51	44	39	33	37
4	OPUS100	100%	100	0.39	59	59	62	58	54	48	45	45
150B Su	rface Mounted											
1	OPUS150	25%	55	0.23	30	31	35	30	23	14	7	16
2	OPUS150	50%	65	0.27	45	47	51	46	38	30	25	31
3	OPUS150	75%	130	0.55	53	56	61	56	51	44	40	41
4	OPUS150	100%	200	0.78	57	61	65	61	57	51	47	48
100M/2	M Surface Mour	nted										
1	OPUS100	25%	24	0.10	30	24	20	18	12	1	-	4
2	OPUS100	50%	36	0.15	45	39	36	33	27	16	7	20
3	OPUS100	75%	46	0.19	53	47	44	42	37	30	20	30
4	OPUS100	100%	100	0.39	61	56	50	49	47	39	32	37
150M D	uct Mounted											
1	OPUS150	25%	55	0.23	31	27	22	18	13	2	-	4
2	OPUS150	50%	65	0.27	46	43	38	34	28	18	10	20
3	OPUS150	75%	130	0.55	54	52	48	44	41	32	25	30
4	OPUS150	100%	200	0.78	58	58	52	49	46	39	32	37

The electrical and sound information in the table is nominal. Breakout dBA@3m is spherical, free field.

## **DIMENSIONS - SURFACE MOUNTED OPUS PLUS UNITS**



5

248

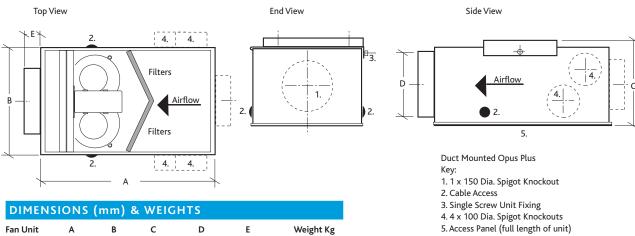
# **DIMENSIONS - DUCT MOUNTED OPUS PLUS UNITS**

320

125

50

160



DIMENSIONS (mm) & WEIGHTS										
Fan Unit	Α	В	С	D	E	Weight Kg				
OPUS100-2M	500	330	260	200	50	11				
OPUS100-M	500	330	260	200	50	10				
OPUS150-M	500	330	260	200	50	11				

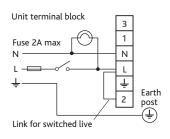
# **WIRING**

OPUS150-B

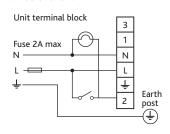
160

335

Wire for full speed operation only.



Wire for trickle vent/boost and timed overrun.





# CONSULTANTS SPECIFICATION

### **OPERATION**

The extract fans shall be as indicated on the drawings and shall be in accordance with the particular fan schedule in this 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 fans shall be operated as it receives signals from one of the interconnected sensors or an external signal e.g. light switch. The OPUS Plus shall have the facility to increase speed on a trickle and boost principle when triggered.

### **GENERAL FAN SPECIFICATION**

The fans are acoustically lined with high density class "O" flame retardant acoustic insulation, giving extremely low noise levels and shall be complete with an integral filter, integral controls and facia mounted run and fail indication. The breakout noise level and power requirements shall be in accordance with the schedule and the manufacturer's details.

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

### **OPUS PLUS**

The unit shall be supplied complete with automatic fan changeover in the event of failure, sensed via a "hall effect" airflow sensor, and auto duty share every 12 hours of run time.

### **DUCT MOUNTED**

The unit shall incorporate a low profile single point mounting bracket, incorporating a pre-stressed synthetic anti vibration seal. The bracket shall enable the unit to be mounted horizontally or vertically. The depth of the unit shall not be greater than 260mm. The unit shall be constructed with one removable panel allowing full maintenance access. To facilitate the interconnection of branch ducts the unit shall have  $4\times100$  dia &  $1\times125$  dia knockouts on the suction side of the unit (spigots provided) and  $1\times200$  dia discharge spigot.

Fan shall be the OPUS100- (2) M or the OPUS150-M as manufactured by Nuaire.

### SURFACE MOUNTED

All fan components are manufactured from ABS polymer and pre-coated steel. Unit finish shall be white.

Fan to have the option of an integrated PIR detector to switch the unit from trickle or off to full speed. Air inlet grilles are fitted with foam filters to protect the fan/motor assembly from airborne dust and contaminants. The unit shall have a 125dia spigot to connect to ductwork or wall mounting kit. Surface mounted LED indicators shall show the unit operational status.

The unit shall be supplied complete with automatic fan changeover in the event of failure, sensed via a "hall effect" airflow sensor, and auto duty share every 12 hours of run time

All versions 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:

- Integral adjustable background ventilation control/set point (0 50%).
- Integral adjustable trickle ventilation control/set point (50 100%).
- Integral adjustable run on timer.
- Integral S/L terminal for boost trigger from remote switch, e.g. light switch.
- · Volt free failure/status indication.
- 3 years manufacturers warranty.

The unit shall be controlled by one of the following remote options:

- OPUS SPD Low voltage (12V) speed control, ON/OFF and speed control between min and max settings.
- 230-PIR (passive infra-red) movement detector (includes run-on-timer), 2-30 mins).
- 230-PIRNT (passive infra-red) movement detector (without run-on-timer).
- · HUMISEN Humidity sensor.
- 230-TSTATR Room thermostat.
- ES-AVI2 Audio Visual Indicator.

Fan shall be the OPUS100- 2 B (P) or M or the OPUS150- B (P) or M as manufactured by Nuaire Ltd.

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