

**BROAN**® NuTone®

# ULTRA™ SERIES

## VENTILATION FANS



A revolution in ventilation fan technology





# Introducing **ULTRA™** S

## A Revolution in Ventilation Fan Technology—En

We didn't just change one thing to make installation faster—we changed everything. From our unique telescoping mounting frame that fits through retrofit drywall openings without a need for attic access to our easy-to-insert snap-in blower and housing, we've designed the ULTRA™ Series to be the fastest, easiest, most universal installation.

Don't let the uncertainty of what's behind the drywall stand in your way. Take on any installation



# eries Ventilation Fans.

ngineered to Increase Your Profitability.

knowing that ULTRA™ Series Ventilation Fans and Fan/Lights will make it easier and faster—up to 60% faster in retrofit installations and up to 20% faster in new construction. Because you don't make money by wasting time.

Just as important, you can confidently install the ULTRA™ Series knowing it meets all whole-house mechanical ventilation codes and green building program requirements.



# Tight construction keeps the eleme



## Premium Ventilation Helps Reduce Airborne Pollutants

Today's homes are built tightly for energy efficiency. But what's good for heating and air-conditioning bills means unwanted and unhealthy pollutants stay trapped inside unless they are mechanically vented away.

Excess humidity, for example, can cause damaging and unhealthy mold growth. Other pollutants\* include pollen and volatile organic compounds (VOCs) which off-gas from building materials or exist in products we use every day such as cosmetics and cleaning chemicals.

### **Intermittent and continuous ventilation.**

Intermittent or "spot" ventilation focuses on removing contaminants from a specific area at a specific time, such as running a bath fan during a shower. Continuous, whole-house ventilation is becoming increasingly popular and continually removes contaminants generated in our homes every day.

Continuous ventilation—also known as whole-house ventilation—is being required to meet building codes

such as California Title 24, or green building standards such as LEED or ENERGY STAR® for Homes. These types of programs reference the ASHRAE 62.2 residential ventilation standard that details the amount of air in cubic feet per minute (CFM) needed for whole-house ventilation, based on square footage and the number of bedrooms in the home.

### **ULTRA™ Series Ventilation Fans. The solution for spot and continuous ventilation needs.**

Our exclusive ULTRA Smart™ Control Technology enables these fans to maintain their powerful operation even at high static pressures, and supply the required air movement levels for whole-house ventilation while meeting the spot ventilation needs of a bathroom. Available in multi-speed versions, the continuous lower CFM levels of ULTRA™ Series Ventilation Fans can be adjusted to meet the specific needs of each home.

Since whole-house fans may run at all times, quiet operation is extremely important. The last thing that













\*Visit [www.epa.gov](http://www.epa.gov) for more information on pollutants.



vents out—and airborne pollutants in.

anybody wants is to be kept awake by a loud fan. The ASHRAE 62.2 standard requires whole-house fans to be rated at 1.0 sones or less. All ULTRA™ Series Ventilation Fans feature ULTRA Silent™ Sound Technology, greatly surpassing this requirement by measuring a barely audible 0.3 sones or less.

Choosing an ENERGY STAR® qualified fan is always a good idea, but it is even more important for whole-house fans that may run all the time. ULTRA™ Series Ventilation Fans with ULTRA Green™ DC Motor Technology meet ENERGY STAR® CFM-per-watt requirements and in some cases are nearly 10 times more efficient.

Number of Bedrooms	0–1	2–3	4–5
Home Square Footage	< 1500  30	 45	 60
	1501 to 3000  45	 60	 75
	3001 to 4500  60	 75	 90
	4501 to 6000  75	 90	 105

For more details see ASHRAE Standard 62.2-2010

**Use this simple formula or the chart above to calculate the required CFM for continuous ventilation.**

CFM = .01 x floor area (in square feet) plus 7.5 x (number of bedrooms + 1).

Example: A 3,000 square foot home with 3 bedrooms would require 60 cfm:

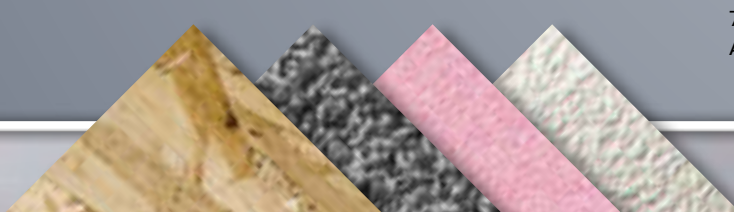
.01 x 3,000 = 30

7.5 x (3+1) = 30

Add together for a total of 60 CFM



All ULTRA™ Series Ventilation Fans are ENERGY STAR® qualified.



# ULTRAQUICK™ INSTALLATION TECHNOLOGY

Save time and increase profitability with the fastest, easiest, most universal installation.

ULTRA™ Series Ventilation Fans are built for installation, with options that adjust to worksite conditions. ULTRA Quick™ Installation Technology makes our fans up to 60% faster to install in retrofit installations and up to 20% faster in new construction.



Inside or outside wiring capability provides flexibility for new construction or retrofit.



Pre-installed screws in the mounting frame allow for quick installation.

Vertical positioning tabs easily ensure the housing is in the right place.



The fan housing securely snaps into place. You can hear—and feel—when it is properly seated. The easy-to-position carriage enables housing location adjustment between joists to ensure desired ceiling placement.

ULTRA™ Series Ventilation Fans are engineered to be the fastest, easiest, most universal installation in remodel, retrofit and new construction. Only the ULTRA Quick™ Installation Technology allows fan installation in any type of joist or truss system. Now you know you can do the job quickly without concern for what you'll find behind the drywall. And with no attic access required! ULTRA™ Series

Ventilation Fans have exclusive installation features such as a telescoping mounting frame with pre-installed screws, snap-in housing, snap-in blower and an inside-out mounting duct connector. Whether you remodel, retrofit or install in new construction, an ULTRA™ Series Ventilation Fan will save time and increase your profitability.



For no-hassle installation, the blower simply snaps into the housing.



For room-side installation, pull the duct through the opening, attach the duct to the connector, push the connector into place and fasten to the housing with only one screw.



Exclusive, expandable mounting frame design adjusts from 14"–24" wide and fits any type of joist, I-Joist or truss construction.



Pet dander and dust mites contribute to poor indoor air quality.

18

Off-gassing from household materials introduces CO<sub>2</sub>, odors, formaldehyde, and other VOCs into the air.

6

In the short span of an hour each day, steamy showers can produce mold and mildew-fostering water vapor.

12

ULTRA™ Series Ventilation Fans—Your 24/7 solution to Indoor Air Quality problems.

## ULTRAGREEN™ DC MOTOR TECHNOLOGY

The perfect solution to meet today's continuous ventilation requirements.

ULTRA™ Series Ventilation Fans featuring ULTRA Green™ DC Motor Technology are a virtually silent continuous ventilation solution for ASHRAE 62.2 and programs such as LEED, ENERGY STAR® for Homes and CA Title 24. Because they are available in both single speed (X1) and multi-speed (X2) versions, you can choose the functionality you require for the job.

Multi-speed models will quietly solve not only your excess humidity and odor problems when called upon but can pull double-duty as a great continuous ventilation solution as well.

What's more, our new DC motor is the most efficient in our line. For instance, the 80 CFM models at 5.8 watts are almost 10 times more efficient than ENERGY STAR® requirements. For a fan running continuously, this means an annual savings of over \$50 compared to an ENERGY STAR® fan that just meets the minimum efficiency requirement.\* So you won't be hyperventilating over energy expenses either.

\*Using U.S. Energy Information Administration 2010 residential average electricity price of \$.116 per kWh ([www.eia.gov](http://www.eia.gov))



# ULTRASMART™ CONTROL TECHNOLOGY

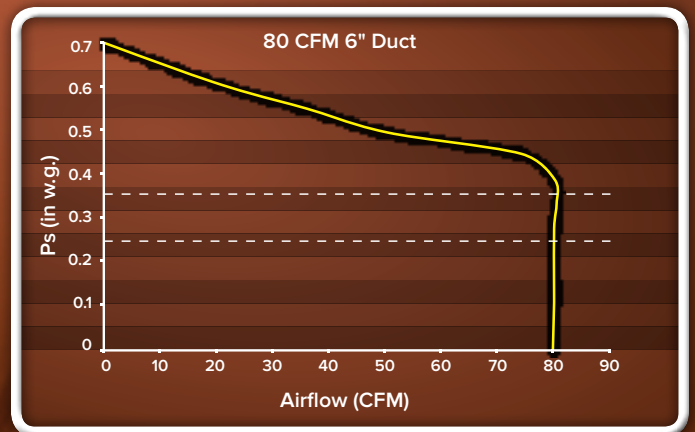
## Maintain CFM in nearly every installation.

Today's green building requirements demand specific ventilation performance, so it's important that your ventilation fan deliver full-rated airflow. ULTRA™ Series Ventilation Fans with ULTRA Smart™ Control Technology continually monitor their performance and adjust motor speed to ensure the air movement you expect is delivered in almost any type of installation. You may not always know the ducting situation but our ULTRA Smart™ Control Technology will compensate for less-than-ideal circumstances.

Like our X1 single speed versions, models featuring our X2 multi-speed control technology also take care of excess humidity and odors. However, when you also need to meet whole-house ventilation requirements, X2 models feature a continuous CFM adjustment dial that allows you to precisely set the airflow as low as 30 CFM to satisfy any inspector or rater. This capability also translates to happy homeowners as there is no costly over-ventilating or unhealthy under-ventilating.

Once the homeowner has turned an X2 multi-speed fan on high for maximum humidity and odor ventilation, a second dial beneath the grille controls how long it will run at maximum CFM before returning back to the pre-set, lower continuous level. Both of these dials only need to be set once.

Most ventilation codes and green building programs require CFM ratings measured at 0.25" static pressure. ULTRA™ Series Ventilation Fans deliver 0.1" performance well beyond 0.25". In the case of 80 CFM models, ULTRA™ maintains 80 CFM all the way up to 0.35".



Even if your attic ventilation looks like this, ULTRA Smart™ Control Technology virtually ensures the airflow performance you are expecting.



On multi-speed models, just below the easy-to-remove grille, there are dials to adjust continuous CFM levels and maximum back to continuous ventilation delay timing.





ULTRA Lucent™ Lighting Technology produces brighter, more efficient and more broadly spread lighting throughout the room with minimized bulb hot spots.



## ULTRALUCENT™ LIGHTING TECHNOLOGY

Better lighting while using less energy.

Fan/lights of the past don't hold a candle to ULTRA™ Series Ventilation Fans with ULTRA Lucent™ Lighting Technology. The design of our light lens distributes illumination evenly while using less wattage. In fact, our 36 watt fan/lights deliver the brightness (measured in lumens) of models previously requiring 60 watts of CFL output.

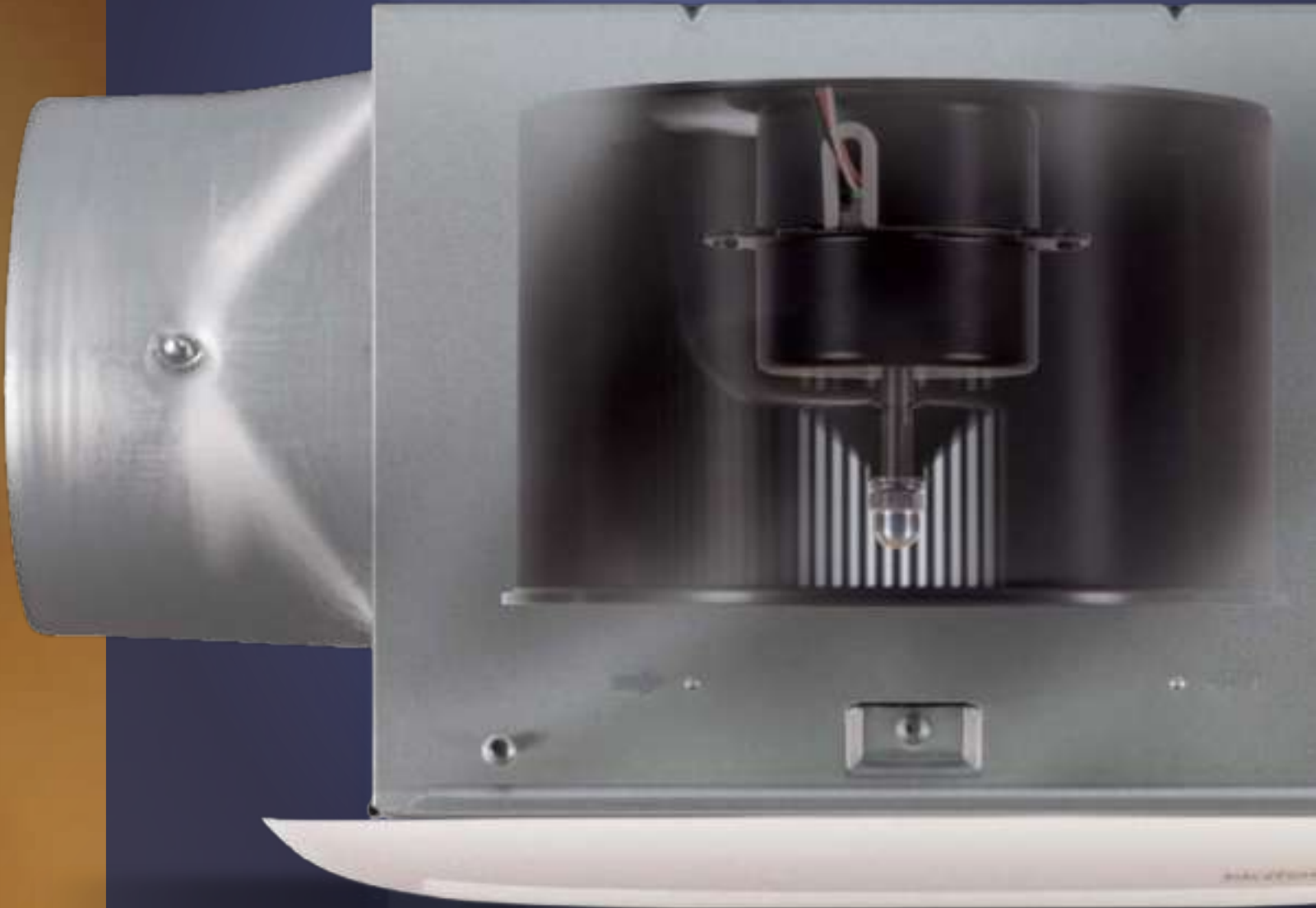
Look at most fan/lights, they have dull, dingy lenses and you can see the hot spot created by the light bulb. That spot means more light here, and less light there. ULTRA Lucent™ Lighting Technology ensures even lighting, maximizing the lumen output per watt of the bulb.

# ULTRASILENT™ SOUND TECHNOLOGY

No ventilation fan is quieter.

We pioneered nearly silent bath fan technology with the QT Series. Now we've taken it to the extreme with ULTRA™ Series Ventilation Fans featuring ULTRA Silent™ Sound Technology that are HVI certified at <0.3 Sones; the quietest sound rating obtainable.

In the ULTRA™ Series, sound takes another sabbatical with a quiet, dynamically balanced DC motor mounted behind the wheel, a state-of-the-art blower design that reduces turbulence, and a free-flowing 6" duct outlet opening that won't inhibit airflow and thus create unnecessary noise.



# Premium Radiation Damper

Service the damper without disturbing the drywall.

Unlike most other radiation dampers, our exclusive design places the damper inside a frame so you do not need to disturb the drywall if you ever need to remove the damper to service or upgrade the motor assembly.

Most codes require fire-rated ceilings in multi-story buildings, and exhaust fans that are protected by dampers, to protect against the spread of heat and flame. Premium radiation dampers help protect the fan opening in 1-, 2-, or 3-hour fire-rated, floor-ceiling and roof-ceiling designs.

**Unlike most radiation dampers, ours features an exclusive design that sits inside the frame, so you do not need to disturb the drywall if you ever need to remove the damper to service or upgrade the motor assembly.**

## Premium Radiation Damper Kit: RDF1

When the air temperature passing through the damper exceeds 165°F the fusible link melts, triggering the thermal fabric to automatically close across the damper. Airflow is interrupted by a flame and heat barrier, preventing the rapid spread of fire to other areas.

### Features:

- Galvanized steel frame
- High temperature, non-asbestos, reinforced fiber thermal fabric
- Stainless steel closure springs
- 165°F fusible link
- Use the same grille provided with the ULTRA™ Series fan

### Kit Includes:

- Radiation damper
- Frame
- Mounting screws for frame to fan housing
- Plaster guard
- Installation guide



### Fits Broan ULTRA™ Series Fans:

- ZB50, ZB80, XB110, XB80 & XB50

### Fits NuTone ULTRA™ Series Fans:

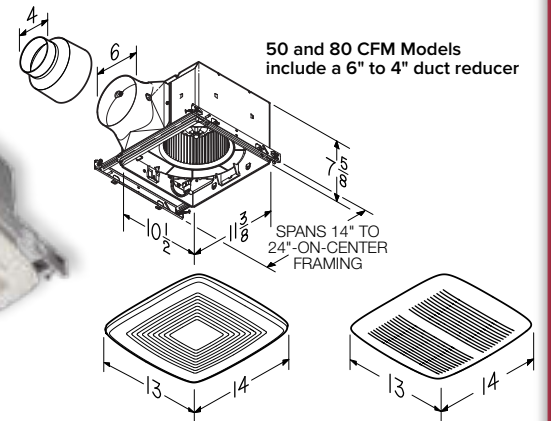
- ZN50, ZN80, XN110, XN80 & XN50

### Certifications:

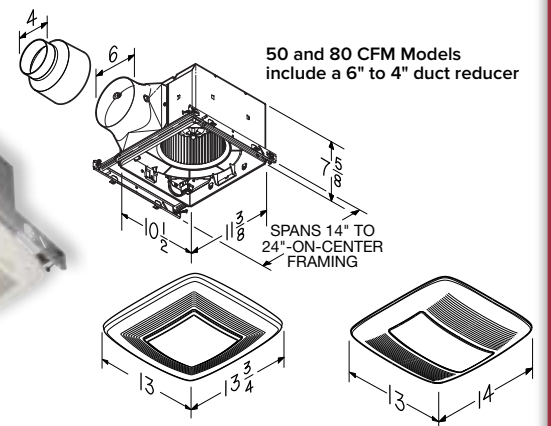
- UL classified (UL standard 555C) for use in 1-, 2-, or 3-hour fire-rated, floor-ceiling and roof-ceiling designs.
- Warnock Hersey Listing enables use in combustible ceilings with ducted fans.

# ULTRA™ Series Fans and Fan/Lights

## ULTRA™ Series Fans



## ULTRA™ Series Fan/Lights



Broan / NuTone	Duct Size	CFM	Constant CFM Range	Sones	Light <sup>1</sup> / Night Light	ENERGY STAR <sup>®</sup>	Housing Dimensions (in)			Grille Dimensions (in)		Grille Finish	Amps <sup>2</sup>	UL Tub / Shower
							W	L	H	L	W			
<b>Single-Speed Fans</b>														
XB50 / XN50	6"	50		<0.3		Yes	11-3/8	10-1/2	7-5/8	13	14	White Polymeric	0.1	Yes
	6" to 4" reducer	50		<0.3										
XB80 / XN80	6"	80		<0.3		Yes	11-3/8	10-1/2	7-5/8	13	14	White Polymeric	0.1	Yes
	6" to 4" reducer	60		0.3										
XB110 / XN110	6"	110		<0.3		Yes	11-3/8	10-1/2	7-5/8	13	14	White Polymeric	0.2	Yes
<b>Single-Speed Fan/Lights</b>														
XB50L / XN50L	6"	50		<0.3	2-18W GU24 / 4W	Yes	11-3/8	10-1/2	7-5/8	13	Broan 13-3/4	White Polymeric	0.7	Yes
	6" to 4" reducer	50		<0.3							NuTone 14			
XB80L / XN80L	6"	80		<0.3	2-18W GU24 / 4W	Yes	11-3/8	10-1/2	7-5/8	13	Broan 13-3/4	White Polymeric	0.7	Yes
	6" to 4" reducer	60		<0.3							NuTone 14			
XB110L / XN110L	6"	110		<0.3	2-18W GU24 / 4W	Yes	11-3/8	10-1/2	7-5/8	13	Broan 13-3/4 NuTone 14	White Polymeric	0.9	Yes
<b>Multi-Speed Fans</b>														
ZB80 / ZN80	6"	80	30-80	<0.3		Yes	11-3/8	10-1/2	7-5/8	13	14	White Polymeric	0.1	Yes
	6" to 4" reducer	60	30-60	0.3										
ZB110 / ZN110	6"	110	30-110	<0.3		Yes	11-3/8	10-1/2	7-5/8	13	14	White Polymeric	0.2	Yes
<b>Multi-Speed Fan/Lights</b>														
ZB80L / ZN80L	6"	80	30-80	<0.3	2-18W GU24 / 4W	Yes	11-3/8	10-1/2	7-5/8	13	Broan 13-3/4	White Polymeric	0.8	Yes
	6" to 4" reducer	60	30-60	<0.3							NuTone 14			
ZB110L / ZN110L	6"	110	30-110	<0.3	2-18W GU24 / 4W	Yes	11-3/8	10-1/2	7-5/8	13	Broan 13-3/4 NuTone 14	White Polymeric	0.9	Yes

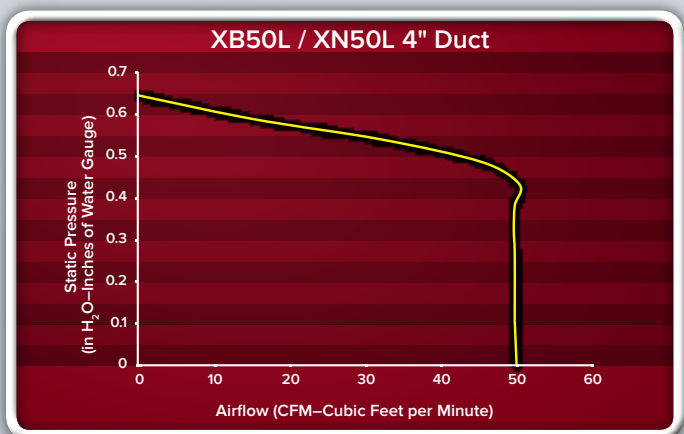
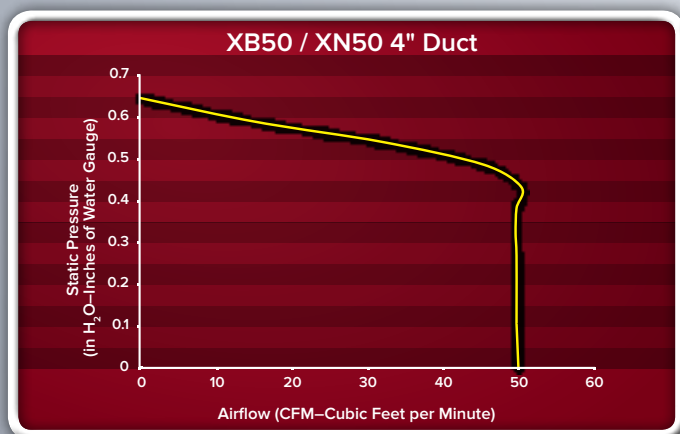
<sup>1</sup>Fluorescent color temperature: 3500K  
<sup>2</sup>Total connected load



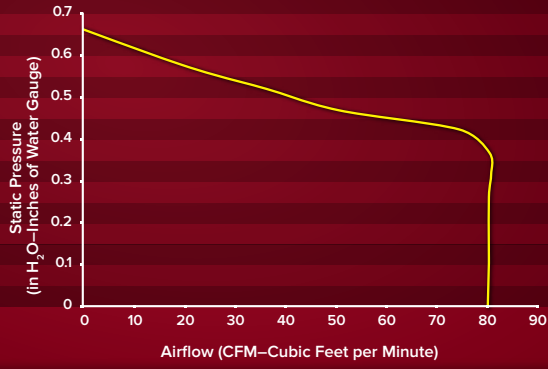
# ULTRA™ Series Fans & Fan/Lights Performance Data

From sound levels of <0.3 sones—the lowest rating achievable—to miserly wattage levels and incredible power under static pressure, ULTRA™ Series delivers performance for today's demanding requirements.

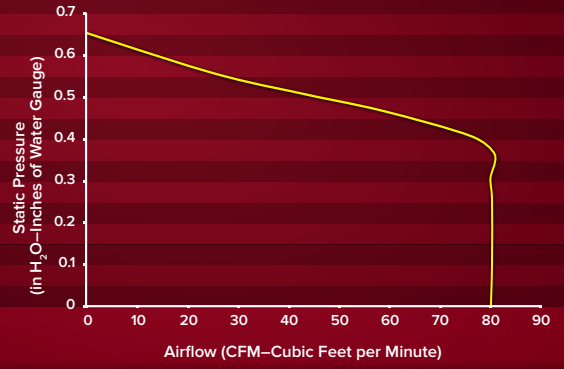
Broan / NuTone	6" Duct					4" Duct					
	0.1 Ps—Static Pressure (in H <sub>2</sub> O)				0.25 Ps	0.1 Ps—Static Pressure (in H <sub>2</sub> O)				0.25 Ps	
	Airflow (CFM)	Sound (Sones)	Power (Watts)	Efficacy (CFM/Watt)	Airflow (CFM)	Airflow (CFM)	Sound (Sones)	Power (Watts)	Efficacy (CFM/Watt)	Airflow (CFM)	
<b>Single-Speed Fans</b>											
<b>XB50 / XN50</b>	50	<0.3	4.9	11.8	49	50	<0.3	5.1	9.8	50	
<b>XB80 / XN80</b>	60	0.3	6.3	10.3	67	80	<0.3	5.8	13.7	80	
<b>XB110 / XN110</b>	110	<0.3	7.7	14.2	110	—	—	—	—	—	
<b>Single-Speed Fan/Lights</b>											
<b>XB50L / XN50L</b>	50	<0.3	4.9	11.8	48	50	<0.3	5.3	9.4	50	
<b>XB80L / XN80L</b>	60	<0.3	6.4	10.0	67	80	<0.3	6.0	13.3	80	
<b>XB110L / XN110L</b>	110	<0.3	8.7	12.6	110	—	—	—	—	—	
<b>Multi-Speed Fans</b>											
	<b>Airflow Rate Setting (CFM)</b>										
<b>ZB80 / ZN80</b>	80	80	<0.3	5.8	13.7	80	60	0.3	6.3	10.3	67
	70	70	<0.3	5.1	13.7	70	50	<0.3	5.7	10.3	53
	60	60	<0.3	4.6	13.0	60	40	<0.3	5.1	10.1	41
	50	50	<0.3	4.1	12.1	50	30	<0.3	4.4	9.7	31
	40	40	<0.3	3.7	10.8	40	—	—	—	—	—
<b>ZB110 / ZN110</b>	30	30	<0.3	3.3	9.0	30	—	—	—	—	—
	110	110	<0.3	7.7	14.2	110	—	—	—	—	—
	100	100	<0.3	7.0	14.2	100	—	—	—	—	—
	90	90	<0.3	6.4	14.0	90	—	—	—	—	—
	80	80	<0.3	5.8	13.7	80	—	—	—	—	—
	70	70	<0.3	5.1	13.7	70	—	—	—	—	—
	60	60	<0.3	4.6	13.0	60	—	—	—	—	—
	50	50	<0.3	4.1	12.1	50	—	—	—	—	—
	40	40	<0.3	3.7	10.8	40	—	—	—	—	—
30	30	<0.3	3.3	9.0	30	—	—	—	—	—	
<b>Multi-Speed Fan/Lights</b>											
	<b>Airflow Rate Setting (CFM)</b>										
<b>ZB80L / ZN80L</b>	80	80	<0.3	6.0	13.3	80	60	<0.3	6.4	10.0	64
	70	70	<0.3	5.2	13.4	70	50	<0.3	5.6	9.4	54
	60	60	<0.3	4.6	13.0	60	40	<0.3	4.9	9.5	43
	50	50	<0.3	4.1	12.1	50	30	<0.3	4.4	8.8	30
	40	40	<0.3	3.6	11.1	40	—	—	—	—	—
<b>ZB110L / ZN110L</b>	30	30	<0.3	3.3	9.0	30	—	—	—	—	—
	110	110	<0.3	8.7	12.6	110	—	—	—	—	—
	100	100	<0.3	7.3	13.6	100	—	—	—	—	—
	90	90	<0.3	6.5	13.8	90	—	—	—	—	—
	80	80	<0.3	6.0	13.3	80	—	—	—	—	—
	70	70	<0.3	5.2	13.4	70	—	—	—	—	—
	60	60	<0.3	4.6	13.0	60	—	—	—	—	—
	50	50	<0.3	4.1	12.1	50	—	—	—	—	—
	40	40	<0.3	3.6	11.1	40	—	—	—	—	—
30	30	<0.3	3.3	9.0	30	—	—	—	—	—	



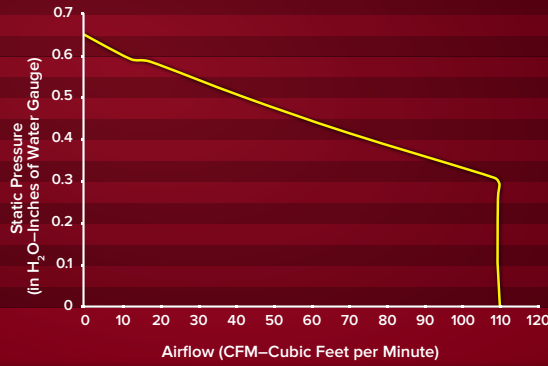
**XB80 / XN80 6" Duct**



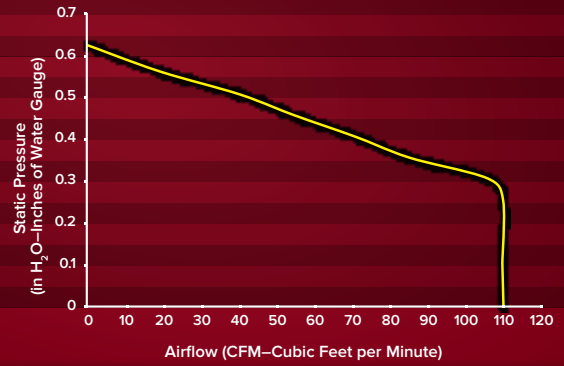
**ZB80L / ZN80L 6" Duct**



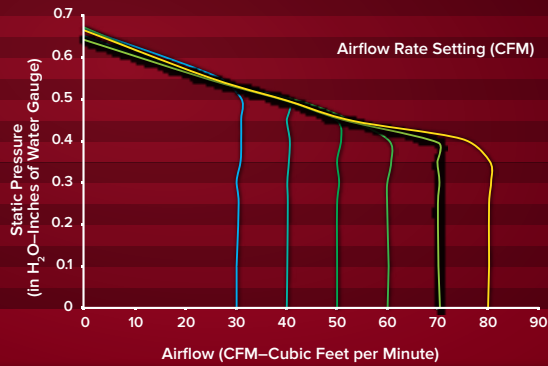
**XB110 / XN110 6" Duct**



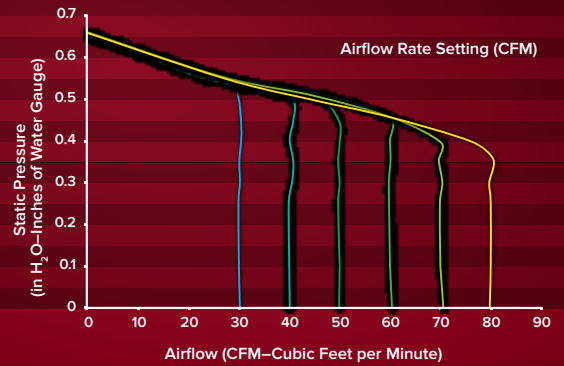
**XB110L / XN110L 6" Duct**



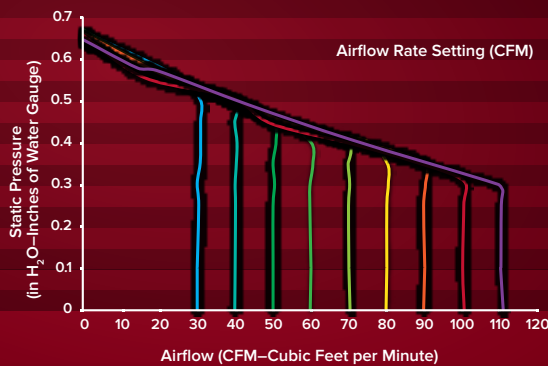
**ZB80 / ZN80 6" Duct**



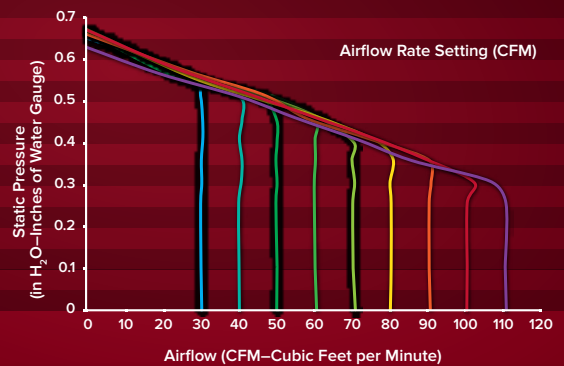
**ZB80L / ZN80L 6" Duct**



**ZB110 / ZN110 6" Duct**



**ZB110L / ZN110L 6" Duct**



# ULTRA™ SERIES

## VENTILATION FANS



**BROAN® NuTone®**

Broan-NuTone LLC,  
926 W. State Street  
Hartford, WI 53027  
800-558-1711

**BroanUltra.com NuToneUltra.com**

