Delta Breez Ventilation Fans

Perfectly Quiet. Perfectly Green.

ENERGY STAR
AWARD 2017
PARTNER OF THE YEAR
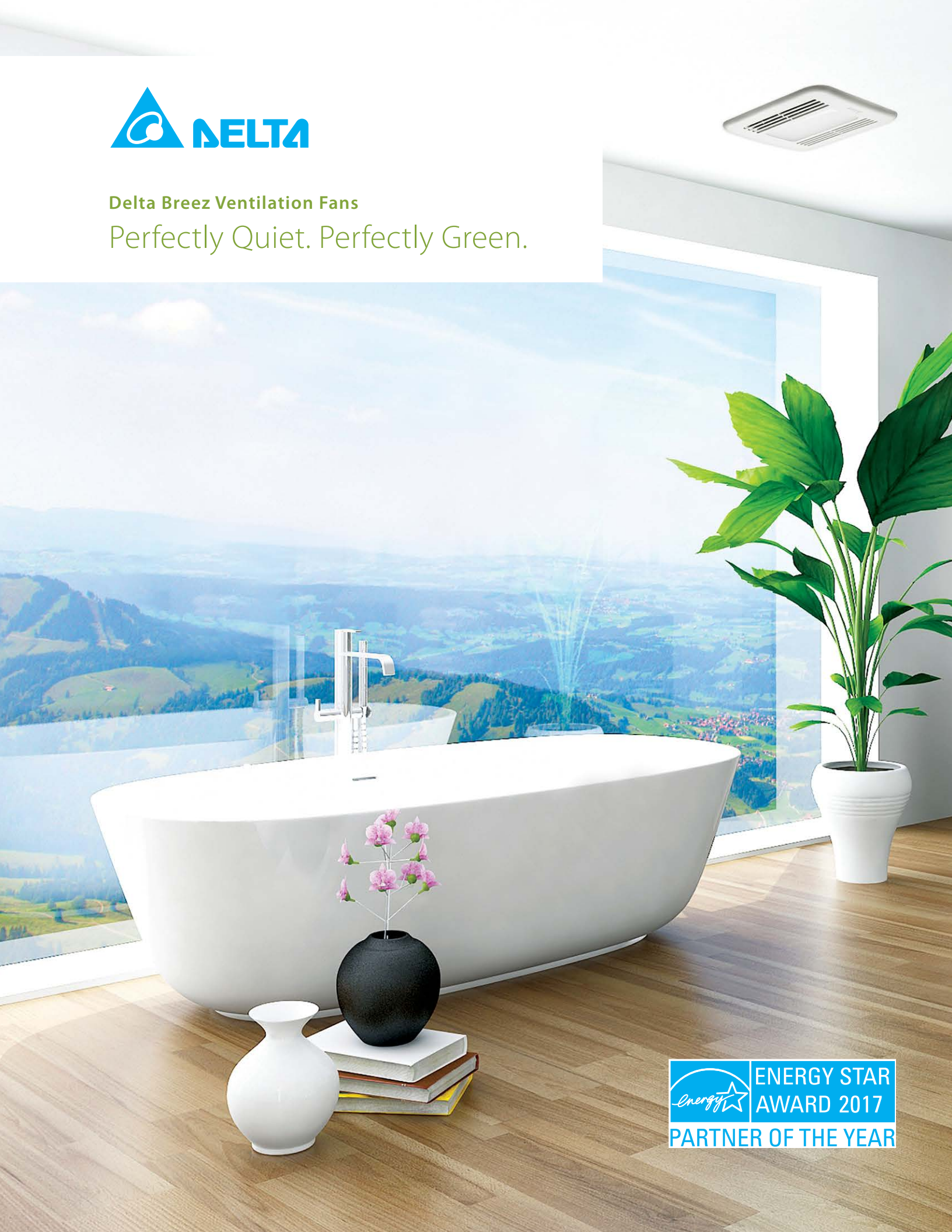
Delta Americas Headquarters

Green Features Overview

Rainwater Harvesting

Solar PV Power System

Building Exterior Design

Smart Green Data Center

High Efficiency HVAC System
- Ground source heat pump system
- By Direction Radiant Heating Cooling
- Active Chilled Beam
- Energy-saving VFD

Energy Management
- Energy Online

Elevator Power Regeneration

Smart Outdoor LED Lighting System

EV Charging
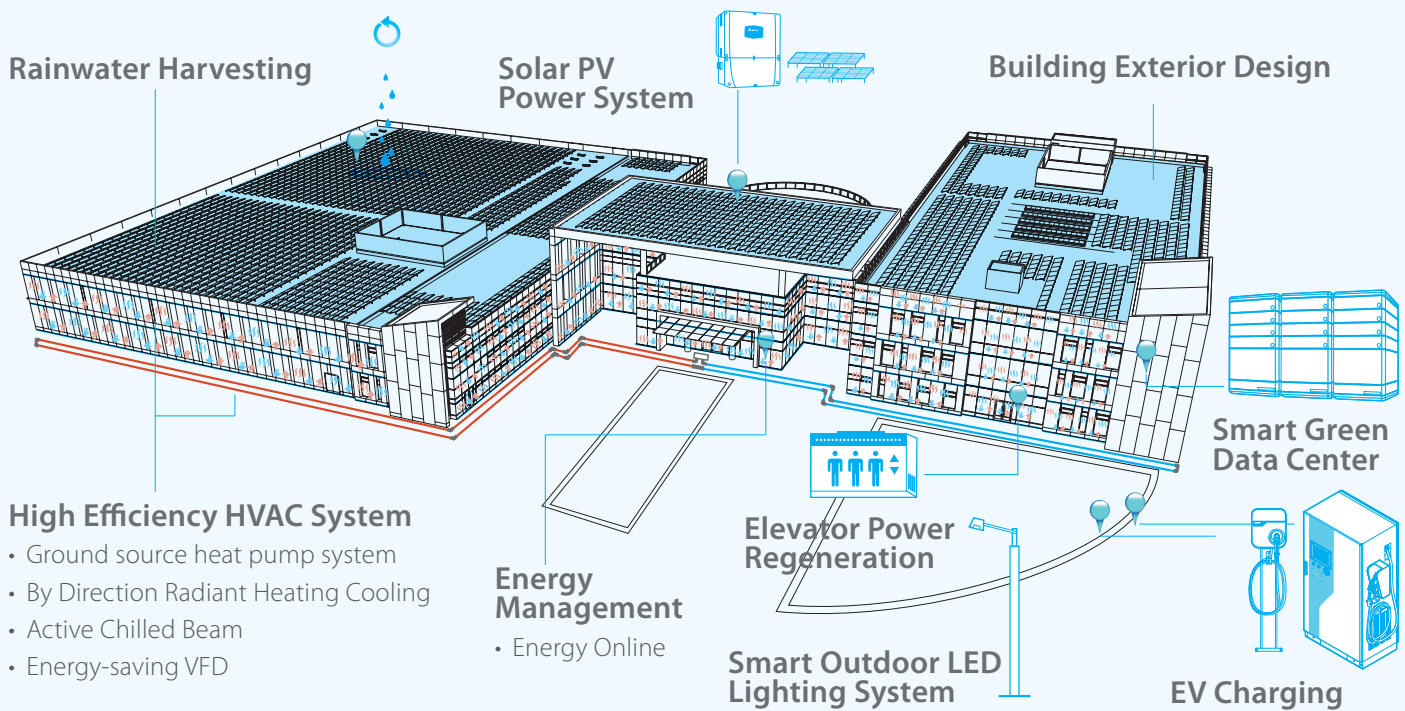
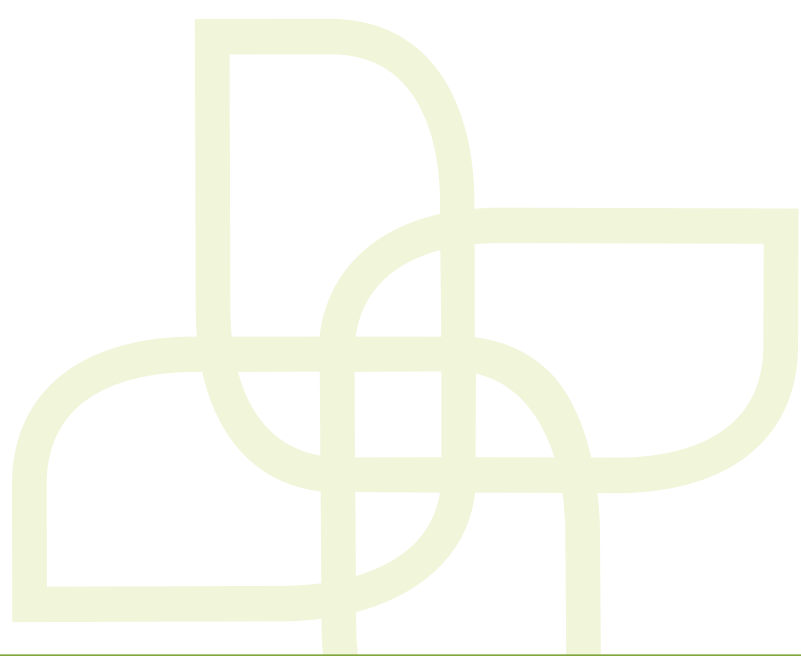**Designed and built to meet LEED Platinum Standards and achieve Net Zero**

Saves Energy through ground source heat pump and Delta's solutions

Generates energy through Solar Power System

Increase power usage efficiency through energy management

Table of Contents

	Asia-Pacific (China)	Americas	EMEA	Total
Sales Offices	96(52)	20	37	153
Plant Sites	32(22)	4	2	38
R&D Centers	42(23)	7	11	60

Why Delta

Smarter. Greener. Together.

Delta's Mission

Our mission is to provide innovative, clean and energy efficient solutions for a better tomorrow. This is supported by a product portfolio that features a range of energy efficiency solutions including ventilation fans, industrial automation products, solar inverters, LED lighting, EV chargers, power supplies and LED display solutions. Delta's operations are ISO-9001, ISO-14001, ISO-14064, OHSAS-18001 and TS-16949 certified.

The World's Leading Provider of Brushless DC Motor Fans

Delta Group is the world's largest manufacturer of brushless DC fans and a leading provider of switching power supplies – a $7.5 billion global company with 38 manufacturing facilities, 60 R&D labs, and U.S. headquarters in Fremont, CA.

Dedicated to improving the environment

From 2010 to 2015, Delta's high efficiency products saved 6.4M tons of CO_2 for our customers. Among its many energy-saving products, Delta has developed the world's first server power supply to achieve 80 Plus Titanium energy efficiency, which is greater than 96% efficiency.

Delta will continue its dedication to developing technologies and solutions to help ensure a sustainable future.

When Precision is Paramount

Delta brushless DC fans are used in applications where precision is paramount. This includes popular consumer electronics products such as laptops, desktops PC's, tablets, and gaming consoles.

Please visit our global website **www.deltaww.com** for a more comprehensive look at Delta operations, products, and company profile.

Why is Ventilation Important?

Many of today's homes are airtight and highly insulated, which is good for cost and energy-effective temperature control, but presents a challenge for indoor air quality. Without adequate exhausting of air to the outside, the concentration of pollutants indoors is often much greater than that of the outdoors.

Air Pollution Inside the House

Sources of indoor air pollutants are found throughout a home, including combustion sources, building materials, cleaning products, and biological pollutants such as mold, mildew, bacteria, and pollen. These pollutants are likely to cause or exacerbate health problems. High humidity and uncontrolled moisture in the home can result in greater pollutant concentrations and increased growth of biological contaminants, as well as deterioration of furniture, paint, and more.

Improving Indoor Air Quality

To improve indoor air quality, pollutants must be exhausted, and moisture must be controlled. This is best accomplished using ventilation systems appropriate for the homeowner's living spaces. High humidity conditions are most commonly created through the use of bathroom fixtures, so proper bathroom ventilation is essential for improved indoor air quality.

Why Choose Delta Breez?

Delta Breez offers high quality and top-performing bathroom ventilation fans of varying sizes, airflow levels, and features to fit any application and budget. Delta Breez fans are designed to control and reduce the moisture in your home to improve indoor air quality and help decrease the risk of health problems. All Delta Breez fans feature a brushless DC motor for exceedingly quiet operation and low power consumption. Most models are ENERGY STAR® qualified, which means that they have passed rigorous energy efficiency standards set by the EPA, and reduce greenhouse gas emissions. Low energy consumption lowers utility bills and reduced emissions help to protect the environment, which in turn benefit you!

What makes Delta Breez Ventilation Fans different?

1. All Delta Breez ventilation fans are manufactured with brushless DC motor technology for extended reliability, lower power consumption, and lower noise

2. Most Delta Breez ventilation fans are ENERGY STAR qualified* and ENERGY STAR Most Efficient

3. All Delta Breez ventilation fans have soft start and lock protection functions

4. All Delta Breez ventilation fans are precision engineered to run continuously for a minimum 70,000 hours

5. All Delta Breez ventilation fans come with a 3-year limited warranty

Except for BreezRadiance series fan/LED light with Heater

What are the benefits of a brushless DC motor?

Reliability

Delta's brushless DC motor fans are engineered to outlast popular AC motor models by as much as 70%, reducing the need for replacement.

Less noise

Delta's brushless DC motor fans are precision engineered for low sound, down to less than 0.3 Sones, the lowest sound rating of any exhaust fan.

Less power consumption

Delta's brushless DC motor fans use up to 74% less power than popular AC motor exhaust fans.

Efficiency

Delta brushless DC motor fans are among the most efficient ventilation fans available, exceeding ENERGY STAR requirements for efficiency by as much as 367%.

All Delta Breez ventilation fans are precision engineered to run continuously for a minimum 70,000 hours.

Certifications and Qualifications

About ENERGY STAR

ENERGY STAR is a joint program of the U.S. Department of Energy and the U.S. Environmental Protection Agency that identifies products in over 60 categories which meet rigorous energy efficiency standards. Started in 1992, ENERGY STAR is now an internationally recognized label for U.S.-originated products that reduce greenhouse gas emissions without sacrificing performance or quality. ENERGY STAR qualified products help to protect the environment by reducing energy consumption, which in turn reduces greenhouse gas emissions and saves consumers money on utility bills.

As an ENERGY STAR partner, Delta is committed to environmental protection and strives to create products meeting and surpassing current standards in energy efficiency. Delta Breez prides itself on delivering ENERGY STAR qualified products, some of which exceed the ENERGY STAR efficiency requirement by over 367%. With 49 models available in 2016 for evaluation, 46 models were awarded the ENERGY STAR recognition.

ENERGY STAR Most Efficient 2017

ENERGY STAR Most Efficient is a designation recognizing and advancing the most efficient products among those that qualify for the ENERGY STAR label. ENERGY STAR Most Efficient products reduce greenhouse gas emissions by meeting rigorous energy efficiency performance levels set by the U.S. Environmental Protection Agency.

While 2.5% of all residential bathroom ventilation fans on the market were recognized as ENERGY STAR Most Efficient 2017, 14 models of the Delta Breez product line are recognized as such.

ASHRAE 62.2

ASHRAE 62.2 publishes a national standard that applies to single-family homes and multifamily dwellings to ensure proper ventilation and acceptable indoor air quality. The standards are commonly referenced in building codes and widely accepted by architects, engineers, and mechanical contractors. ASHRAE 62.2 addresses minimum ventilation effectiveness and noise level performance of continuous and intermittent mechanical exhaust systems.

Ventilation Air Requirements, CFM

Floor Area	Bedrooms				
(ft²)	0–1	2–3	4–5	6–7	>7
<1500	30	45	60	75	90
1501–3000	45	60	75	90	105
3001–4500	60	75	90	105	120
4501–6000	75	90	105	120	135
5001–7500	90	105	120	135	150
>7500	105	120	135	150	165

Most Delta Breez fan models are ASHRAE 62.2 compliant for both intermittent and continuous run applications. This means that Breez fans are operable according to 62.2 guidelines for airflow and meet the minimum noise level requirements.
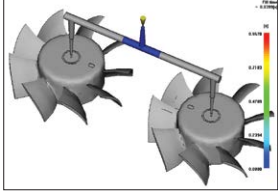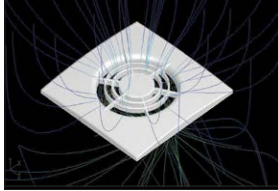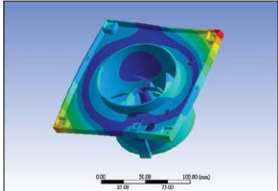
HVI

HVI, the Home Ventilating Institute, is an organization that runs a standardized testing and certification program for a wide range of home ventilating products. Products are tested to qualify for various performance parameters and undergo random verification. All tests are conducted in third party facilities that are independent of any manufacturing company, and testing procedures are designed by HVI members according to internationally recognized guidelines. All Delta Breez ventilation fans are HVI lab tested and certified.

Comprehensive Testing Ensures Reliability

The Delta Breez testing procedures for ventilation fan reliability verification are conducted before, during, and after production. Customers can be assured of product durability and long life.

Design & Analysis Technology

Delta's design and analysis technology utilizes 3D and 2D tools to conduct thorough examinations during the design and production phases. Software simulations to enable the highest standards of performance include:
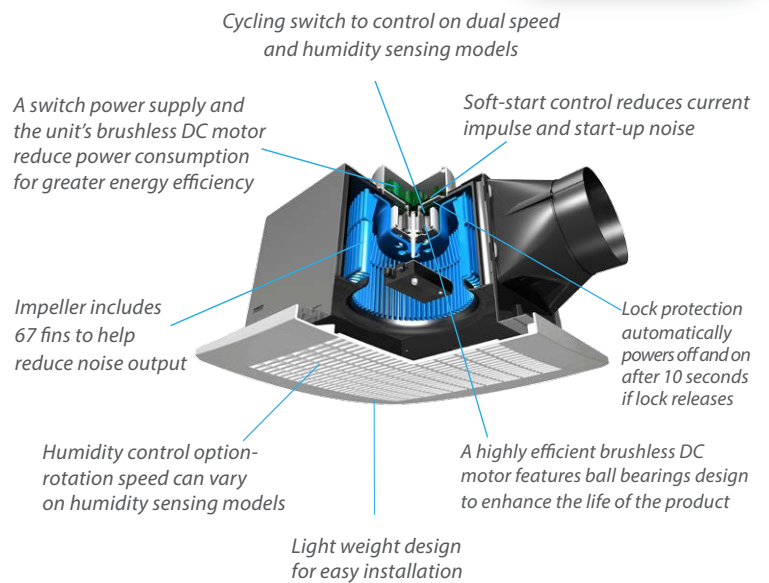
Moldflow Analysis Software
Plastic mold

Aerodynamic Simulation Software
Fan blade curve design & air flow analysis

Structure Simulation Software
Structure analysis for stress and vibration

Semi-Anechoic Chamber
Noise testing for sound pressure and sound quality

Physical Testing for Ventilation Fan Reliability

Laboratory testing of Delta Breez products analyzes functionality and durability under harsh conditions, and construction for long life. The Basic Function Test checks current, speed, and noise, while the Safety Test includes leakage current, Hipot (high potential), ground bond, and insulation testing. Comprehensive reliability testing continues with:

- Low Temperature and High Temp/Rating Voltage on/off Test
- Temperature Cycling & Power Switching
- Impeller Locked Test
- Thermal Shock
- Humidity Exposure
- Water Spray
- Random Vibration and Drop (packing)
- Operational and Non-operation Vibration
- Mechanical Shock
- Life Test

Features of Brushless DC Motor Fans

DC MOTOR TECHNOLOGY

Cycling switch to control on dual speed and humidity sensing models

A switch power supply and the unit's brushless DC motor reduce power consumption for greater energy efficiency

Soft-start control reduces current impulse and start-up noise

Impeller includes 67 fins to help reduce noise output

Lock protection automatically powers off and on after 10 seconds if lock releases

Humidity control option- rotation speed can vary on humidity sensing models

A highly efficient brushless DC motor features ball bearings design to enhance the life of the product

Light weight design for easy installation

breez
Ventilation System

Delta Breez is powerful, durable, quiet, and efficient.

Backed by over 28 years of innovation and consistent quality, the brushless DC motor technology inside every Delta Breez product is why Breez ventilation fans are setting a new industry standard for energy efficient performance. All Delta Breez fans are:

+ Rigorously tested to achieve minimum noise
+ Equipped with soft start and lock protection functions
+ Engineered to run continuously for a minimum 70,000 hours

The energy saving bathroom solution.

The introduction of Breez ventilation fans mark a new achievement in green construction for bathroom ventilation. Breez ventilation fans deliver an aesthetically pleasing solution that consumes less power with advanced functionality, and operates more quietly than most AC motor products in the market.

Features and benefits that will blow you away

+ Quiet – measured at the lowest noise level (less than 0.3 Sones) a bath fan can be tested for HVI certification.
+ Low energy costs – consumes up to 85% less energy than other leading fans, with as little as 4 Watts versus 45 Watts
+ Years of worry-free operation – features precision engineered Delta brushless DC motor fans for superior performance and reliability. Made to outlast AC fan motors by as much as 70%, reducing the frequency of motor replacement
+ Easy Installation – Breez retrofit models can fit into most existing bath ceiling cut outs
+ Certifications – exceeds ENERGY STAR requirements by up to 367%[1]. UL and cUL listed for tub/shower enclosure when used with GFCI branch circuit wiring

	Delta Breez	Market AC Motor
Energy Use (Watts)	6.4	45.2
Noise Level (Sones)	1.0	4.0
Annual Energy Cost per Fan (24/7)[2]	$6.73	$47.56

1 Based upon ENERGY STAR V4.0 criteria for residential ventilating fans
2 Calculations based upon U.S. average retail electricity. Actual results may vary

Delta Breez Series Ventilation Fans

The Delta BreezSignature Series fans are available with light options, adjustable humidity and speed controls, motion sensing capabilities and a delay timer.

The Delta BreezSmart Series fans feature higher airflow, humidity and motion sensing along with dual speed and an LED option.

The Delta BreezGreenBuilder Series fans offer light options, humidity sensing and low speed control, and record low power consumption at 3.8 Watts. Fan only or single speed models can be installed in a ceiling or wall.

The Delta BreezSlim Series fans feature a compact design and can be mounted in a ceiling or wall.

The Delta BreezIntegrity Series fans feature a compact design, LED light option or built-in Bluetooth® speaker design.

Delta BreezRecessed incorporates brushless DC motor fan technology into an LED recessed can light for the ultimate in design and performance.

The Delta BreezRadiance is a low noise ceiling mount ventilating fan, light and heater.

The Delta BreezProfessional offers powerful airflow extraction for heavier applications, but with quiet operation.

Delta Breez and ENERGY STAR

A commitment to the environment.

ENERGY STAR is a trusted, government-backed symbol that reflects a commitment to help protect the environment through energy efficient products and practices. Delta is proud of its commitment to the ENERGY STAR program and label. All Delta Breez products, with exception of the heater/fan/light, are ENERGY STAR® qualified.
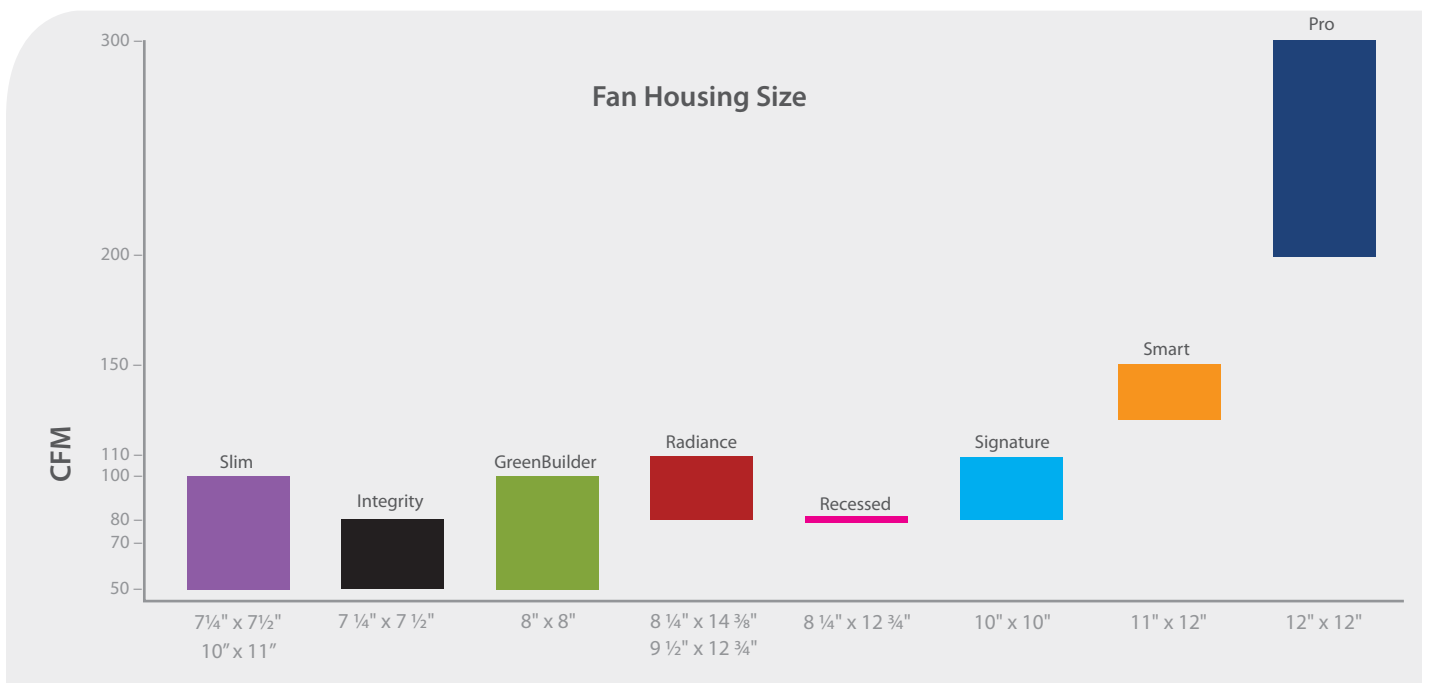
For more information, visit www.energystar.gov

CALGreen

*CAL*Green

CALGreen is state building code requirement for California that sets baseline efficiency and sustainability standards. High efficiency products such as Delta Breez ventilation fans help builders meet this requirement.

For more information, visit www.bsc.ca.gov/Home/CALGreen.aspx

Fan Housing Size

Slim	7¼" x 7½" 10" x 11"
Integrity	7 ¼" x 7 ½"
GreenBuilder	8" x 8"
Radiance	8 ¼" x 14 ⅜" 9 ½" x 12 ¾"
Recessed	8 ¼" x 12 ¾"
Signature	10" x 10"
Smart	11" x 12"
Pro	12" x 12"

CFM axis: 50, 70, 80, 100, 110, 150, 200, 300

breez
Signature

Delta BreezSignature Series (6" duct)

Innovative brushless DC motor design for long life, low noise, and low power consumption

The Delta BreezSignature boasts a <0.3 Sones and enhanced airflow at 0.25" static pressure. Add an LED indicator light so you know the fan is running, a fresh grille design, and the exceptional reliability and efficiency of Delta's brushless DC motor, and you have a winner. The BreezSignature is available with adjustable humidity and speed controls, motion sensing capabilities, and a delay timer.

Features:

- Energy savings up to 69%[1] and 6" metal duct
- <0.3 Sones - lowest noise level among competing fans
- Exceeds ENERGY STAR requirement by 450% in energy efficiency [2]
- Adjustable high speed of 80 or 110 CFM
- Motion-sensing and humidity-sensing options with continuous adjustable low-speed function
- Includes 6" to 4" duct reducer

Fan/Dimmable LED Light:

- 13-Watt LED main light and 2-Watt LED night light
- Main light output 800 lumens, 2700K
- Dimmable LED light (dimmer switch not included)

1 Based upon SIG80-110 vs. market AC motor.
2 Based upon ENERGY STAR v4.0 criteria for residential ventilating fans

Fan only & Fan with Humidity Sensor or Dual Speed

Fan with Motion Sensor

Fan/LED Light/ Night-Light (Options: Fan with Dual Speed, Humidity Sensor, or Motion Sensor)

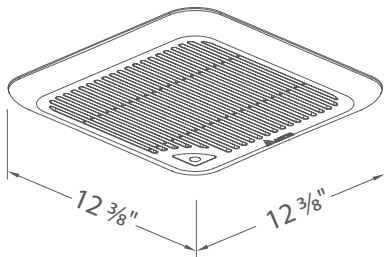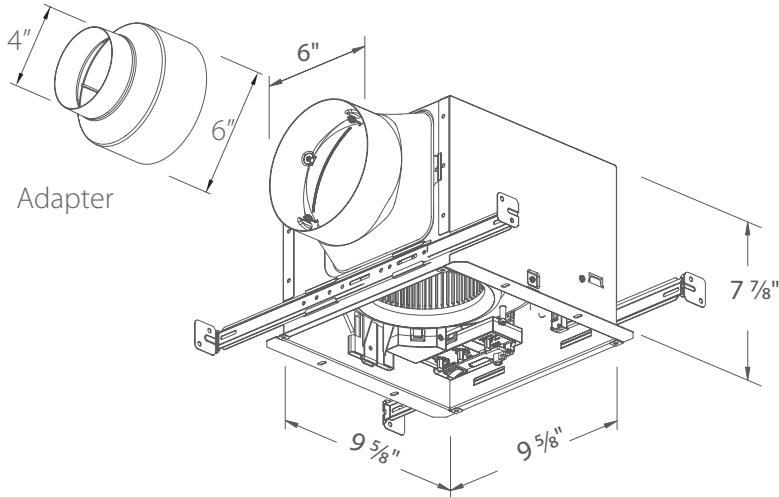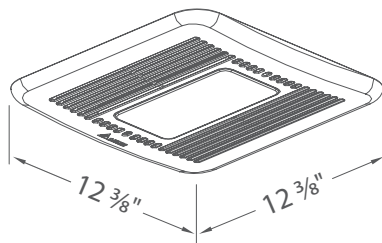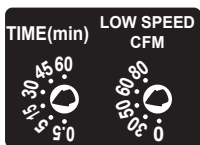**LED DIMMABLE**

High Speed Switch

Adapter 4 inches

Most Efficient 2017
ENERGY STAR www.energystar.gov

ENERGY STAR

HVI CERTIFIED 2100

c UL us

BreezSignature Series Dimensions

4"

6"

6"

Adapter

7 7/8"

9 5/8"

9 5/8"

12 3/8"

12 3/8"

Fan Grille with motion sensor

12 3/8"

12 3/8"

Fan/LED Light Grille

**SIG80-110D
SIG80-110DLED
Controls**

TIME(min) LOW SPEED CFM

**SIG80-110H
SIG80-110HLED
SIG80-110MH
SIG80-110MHLED
Controls**

%RH LOW SPEED CFM
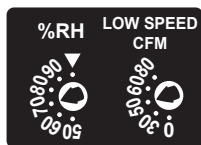
**SIG80-110MHLED
Motion
Controls**

MOTION CONTROL
FAN
LIGHT
FAN/LIGHT

LED Indicator Light: SIG80-110, SIG80-110LED,

LED Indicator Light: SIG80-110D

Continous
Low Speed

Full Speed

**LED Indicator Light: SIG80-110H, SIG80-110HLED,
SIG80-110MH**

Humidity Sensing

Full Speed

LED Indicator Light: SIG80-110DLED

Low Speed

Full Speed

LED Indicator Light: SIG80-110MHLED

Low Speed

Full Speed

	Delta Breez	Market AC Motor
Energy Use (Watts)	9.7	31.4
Noise Level (Sones)	<0.3	0.7
Annual Energy Cost per Fan (24/7)[2]	$10.2	$33.03

1 Calculations based upon U.S. average retail electricity. Actual results may vary

Delta BreezSignature Series (6" duct) Specifications

SIG80-110 - 80/110 CFM Fan

Static Pressure (Inches w.g.)	0.1	0.25	0.1	0.25
Air Flow (CFM)	80	80	110	110
Sones	<0.3	0.5	<0.3	0.8
Power Consumption (Watts)	6.2	9.9	8.2	14.1
Energy Efficiency (CFM/Watts)	15.4	9.0	15.3	8.7
Current (Amps)	0.38 Max			
Power Rating (V/Hz)	120/60			

SIG80-110LED - 80/110 CFM
Fan/Dimmable LED Light/Night-Light

Static Pressure (Inches w.g.)	0.1	0.25	0.1	0.25
Air Flow (CFM)	80	80	110	110
Sones	<0.3	0.5	<0.3	0.8
Power Consumption (Watts)	6.8	9.9	9.7	15.5
Energy Efficiency (CFM/Watts)	13.8	8.4	12.7	8.0
Current (Amps)	0.48 Max			
Power Rating (V/Hz)	120/60			
LED Main Light (Watts)	13			
LED Night Light (Watts)	2			

SIG80-110D - 80/110 CFM Fan with Dual Speed

Fan Speed	Continuous Low Speed								Full Speed			
Static Pressure (in w.g.)	0.1	0.25	0.1	0.25	0.1	0.25	0.1	0.25	0.1	0.25	0.1	0.25
Air Flow (CFM)	30	30	50	50	60	60	80	80	80	80	110	110
Sones	<0.3	<0.3	<0.3	<0.3	<0.3	0.3	<0.3	0.5	<0.3	0.5	<0.3	0.8
Power (Watts)	4.4	6.3	4.8	7.3	5.5	8.6	6.2	9.9	6.2	9.9	8.2	14.1
Efficiency (CFM/Watts)	9.0	5.9	13.5	8.0	13.3	8.0	15.4	9.0	15.4	9.0	15.3	8.7
Current (Amps)	0.38 Max											
Power Rating (V/Hz)	120/60											

SIG80-110DLED - 80/110 CFM
Fan/Dimmable LED Light/Night-Light with Dual Speed

Fan Speed	Continuous Low Speed								Full Speed			
Static Pressure (in w.g.)	0.1	0.25	0.1	0.25	0.1	0.25	0.1	0.25	0.1	0.25	0.1	0.25
Air Flow (CFM)	30	30	50	50	60	60	80	80	80	80	110	110
Sones	<0.3	<0.3	<0.3	<0.3	<0.3	0.3	<0.3	0.5	<0.3	0.5	<0.3	0.8
Power (Watts)	4.4	6.7	5.2	8.2	5.6	8.7	6.8	9.9	6.8	9.9	9.7	15.5
Efficiency (CFM/Watts)	9.5	5.8	12.3	7.1	13.2	8.0	13.8	8.4	13.8	8.4	12.7	8.0
Current (Amps)	0.48 Max											
Power Rating (V/Hz)	120/60											
LED Main Light (Watts)	13											
LED Night Light (Watts)	2											

SIG80-110H - 80/110 CFM Fan with Humidity Sensor

Fan Speed	Continuous Low Speed								Full Speed			
Static Pressure (in w.g.)	0.1	0.25	0.1	0.25	0.1	0.25	0.1	0.25	0.1	0.25	0.1	0.25
Air Flow (CFM)	30	30	50	50	60	60	80	80	80	80	110	110
Sones	<0.3	<0.3	<0.3	<0.3	<0.3	0.3	<0.3	0.5	<0.3	0.5	<0.3	0.8
Power (Watts)	4.4	6.3	4.8	7.3	5.5	8.6	6.2	9.9	6.2	9.9	8.2	14.1
Efficiency (CFM/Watts)	9.0	5.9	13.5	8.0	13.3	8.0	15.4	9.0	15.4	9.0	15.3	8.7
Current (Amps)	0.38 Max											
Power Rating (V/Hz)	120/60											

SIG80-110HLED - 80/110 CFM
Fan/Dimmable LED Light/Night-Light with Humidity Sensor

Fan Speed	Continuous Low Speed								Full Speed			
Static Pressure (in w.g.)	0.1	0.25	0.1	0.25	0.1	0.25	0.1	0.25	0.1	0.25	0.1	0.25
Air Flow (CFM)	30	30	50	50	60	60	80	80	80	80	110	110
Sones	<0.3	<0.3	<0.3	<0.3	<0.3	0.3	<0.3	0.5	<0.3	0.5	<0.3	0.8
Power (Watts)	4.4	6.7	5.2	8.2	5.6	8.7	6.8	9.9	6.8	9.9	9.7	15.5
Efficiency (CFM/Watts)	9.5	5.8	12.3	7.1	13.2	8.0	13.8	8.4	13.8	8.4	12.7	8.0
Current (Amps)	0.48 Max											
Power Rating (V/Hz)	120/60											
LED Main Light (Watts)	13											
LED Night Light (Watts)	2											

SIG80-110MH - 80/110 CFM
Fan with Motion and Humidity Sensor

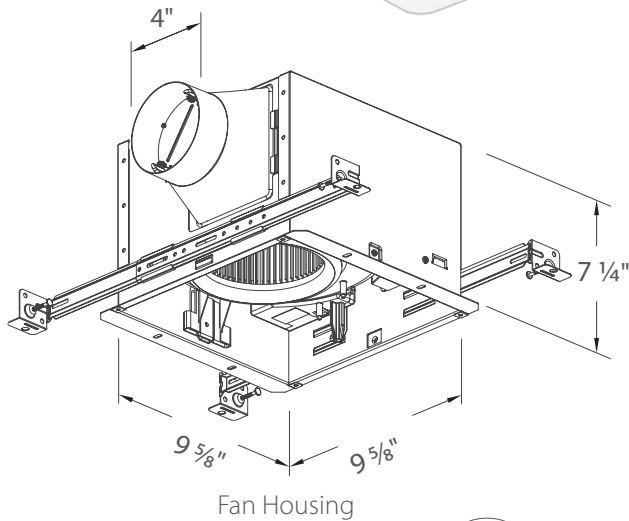| Fan Speed	Continuous Low Speed								Full Speed			
Static Pressure (in w.g.)	0.1	0.25	0.1	0.25	0.1	0.25	0.1	0.25	0.1	0.25	0.1	0.25
Air Flow (CFM)	30	30	50	50	60	60	80	80	80	80	110	110
Sones	<0.3	<0.3	<0.3	<0.3	<0.3	0.3	<0.3	0.5	<0.3	0.5	<0.3	0.8
Power (Watts)	4.4	6.3	4.8	7.3	5.5	8.6	6.2	9.9	6.2	9.9	8.2	14.1
Efficiency (CFM/Watts)	9.0	5.9	13.5	8.0	13.3	8.0	15.4	9.0	15.4	9.0	15.3	8.7
Current (Amps)	0.38 Max											
Power Rating (V/Hz)	120/60											

SIG80-110MHLED - 80/110 CFM
Fan/Dimmable LED Light/Night-Light w/ Motion and Humidity Sensor

Fan Speed	Continuous Low Speed								Full Speed			
Static Pressure (in w.g.)	0.1	0.25	0.1	0.25	0.1	0.25	0.1	0.25	0.1	0.25	0.1	0.25
Air Flow (CFM)	30	30	50	50	60	60	80	80	80	80	110	110
Sones	<0.3	<0.3	<0.3	<0.3	<0.3	0.3	<0.3	0.5	<0.3	0.5	<0.3	0.8
Power (Watts)	4.4	6.7	5.2	8.2	5.6	8.7	6.8	9.9	6.8	9.9	9.7	15.5
Efficiency (CFM/Watts)	9.5	5.8	12.3	7.1	13.2	8.0	13.8	8.4	13.8	8.4	12.7	8.0
Current (Amps)	0.48 Max											
Power Rating (V/Hz)	120/60											
LED Main Light (Watts)	13											
LED Night Light (Watts)	2											

Delta BreezSignature Series (4" duct)

Fan Housing

4"

9 ⅝" 9 ⅝"

7 ¼"

Fan Grille

12 ⅜" 12 ⅜"
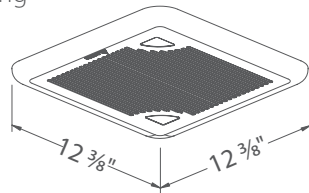
LED Indicator Light:
SIG80 and SIG110
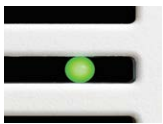
**LED Indicator Light:**
SIG80D

Continuous Low Speed

Full Speed

SIG80D Controls

TIME(min)   LOW SPEED CFM
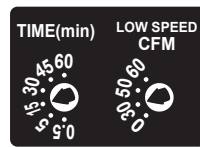
Specifications

SIG80 - 80 CFM Single Speed Exhaust Fan

Static Pressure (Inches w.g.)	0.1	0.25
Air Flow (CFM)	80	79
Sones	<0.3	0.5
Power Consumption (Watts)	8.7	14.0
Energy Efficiency (CFM/Watts)	9.7	6.3
Current (Amps)	0.30 Max	
Power Rating (V/Hz)	120/60	

SIG80D - 80 CFM Dual Speed Exhaust Fan

Static Pressure (Inches w.g.)	0.1	0.25	0.1	0.25	0.1	0.25	0.1	0.25
Air Flow (CFM)	30	31	50	50	60	61	80	79
Sones	<0.3	<0.3	<0.3	<0.3	<0.3	0.3	<0.3	0.5
Power Consumption (Watts)	4.8	8.9	6.6	9.8	6.7	11.8	8.7	14.0
Energy Efficiency (CFM/Watts)	7.7	4.1	8.4	5.2	9.9	5.6	9.7	6.3
Current (Amps)	0.30 Max							
Power Rating (V/Hz)	120/60							

SIG110 - 110 CFM Single Speed Exhaust Fan

Static Pressure (Inches w.g.)	0.1	0.25
Air Flow (CFM)	110	95
Sones	<0.3	0.6
Power Consumption (Watts)	13.6	16.0
Energy Efficiency (CFM/Watts)	9.0	6.4
Current (Amps)	0.38 Max	
Power Rating (V/Hz)	120/60	

	Delta Breez	Market AC Motor
Energy Use (Watts)	8.7	28.4
Noise Level (Sones)	<0.3	0.8
Annual Energy Cost per Fan (24/7)[1]	$9.15	$29.94

1 Calculations based upon U.S. average retail electricity. Actual results may vary

ENERGY STAR

HVI CERTIFIED 2100

c UL US

breez Signature

Delta BreezSignature Series (4" duct)

The Delta BreezSignature Generation1 Series ventilation fans come in 4 different models. All of the BreezSignature fans feature quiet operation, low power consumption, and Delta's durable brushless DC motor.
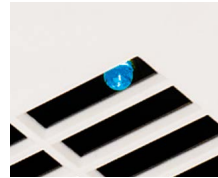
Features:

Innovative design for long life, low noise, and low power consumption.

• Energy savings up to 74%

• Lowest sone level rated by HVI at <0.3 Sones

• Exceeds ENERGY STAR requirements by 292% in energy efficiency [1]

Fan with Bluetooth®
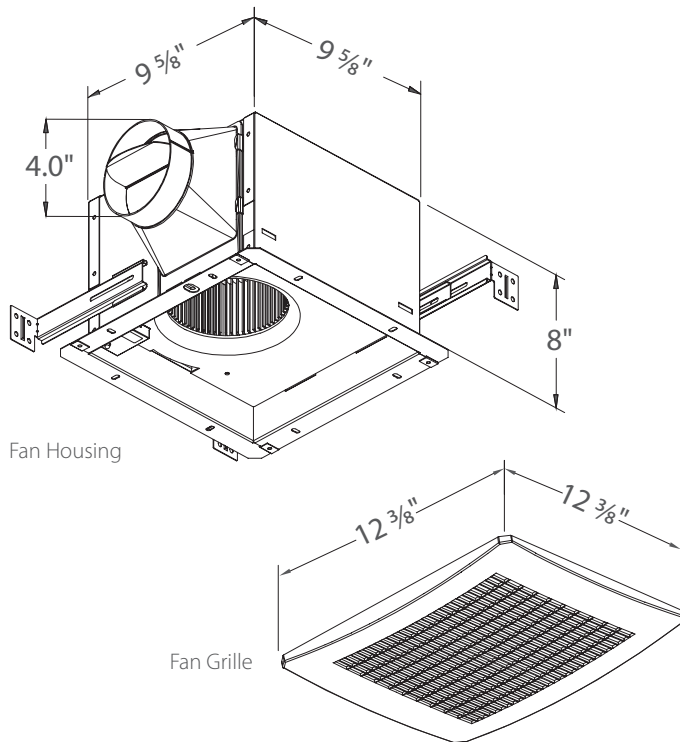
LED light underneath grille indicates fan mode:
Humidity Sensing   Full Speed Operation

Fan Housing

Fan Grille
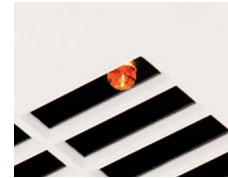
	Delta Breez	Market AC Motor
Energy Use (Watts)	7.2	28.4
Noise Level (Sones)	<0.3	0.8
Annual Energy Cost per Fan (24/7)[2]	$7.57	$29.94

1 Based upon ENERGY STAR criteria for residential ventilating fans.
2 Based upon BreezSignature VFB25ACH vs. market AC motor fan.

ENERGY STAR

HVI 2100 CERTIFIED

c(UL)us

breez
Signature

Specifications

VFB25ACH* - 80 CFM Humidity Sensor Exhaust Fan

Static Pressure (Inches w.g.)	0.1	0.25
Air Flow (CFM)	80	56
Sones	<0.3	0.8
Power Consumption (Watts)	7.2	9.3
Energy Efficiency (CFM/Watts)	11.0	6.0
Current (Amps)	0.15 @ 110 Vac	
Power Rating (V/Hz)	110~220/50~60	

VFB25ADH - 110 CFM Humidity Sensor Exhaust Fan

Static Pressure (Inches w.g.)	0.1	0.25
Air Flow (CFM)	110	81
Sones	1.0	1.5
Power Consumption (Watts)	14.2	15.0
Energy Efficiency (CFM/Watts)	7.7	5.3
Current (Amps)	0.22 @ 110 Vac	
Power Rating (V/Hz)	110~220/50~60	

* Product is ENERGY STAR Most Efficient 2017 distinction and ENERGY STAR qualified

VFB25ADBT - 110 CFM Fan with Bluetooth

Static Pressure (Inches w.g.)	0.1	0.25
Air Flow (CFM)	110	81
Sones	1.0	1.5
Power Consumption (Watts)	14.2	15.0
Energy Efficiency (CFM/Watts)	7.7	5.3
Current (Amps)	0.3 @ 110 Vac	
Power Rating (V/Hz)	110~220/50~60	

The Bluetooth® word mark and logos are registered trademarks owned by Bluetooth® SIG, Inc. and any use of such marks by Delta Electronics, Inc. is under license. Other trademarks and trade names are those of their respective owners.

VFB25AEH - 130 CFM Humidity Sensor Exhaust Fan

Static Pressure (Inches w.g.)	0.1	0.25
Air Flow (CFM)	130	105
Sones	2.0	N/A
Power Consumption (Watts)	22	22
Energy Efficiency (CFM/Watts)	6.7	5.9
Current (Amps)	0.36 @ 110 Vac	
Power Rating (V/Hz)	110~220/50~60	

Delta BreezSignature SIG-CRD Ceiling Radiation Damper

The damper employs a folded curtain style blade for point-of-origin control of radiant heat in a ventilation system. SIG-CRD installs in the ceiling membrane for floor/ceiling or roof/ceiling assemblies with a fire resistance rating up to and including 3 hours.

Features:

- UL listed as fan/damper assembly for the following Wood Frame Construction designs: L521, L546, L558, L562, L574, L576, L581, L583, L585, P522, P533, P538 and P545

- Meets both UL555C and UL263. UL and cUL listed and exceeds UL 555C for use in 3-hour fire rated assemblies

- Warnock-Hersey certified for use in fire rated floor ceiling or roof/ceiling assembles. Warnock Hersey listing #: 102195501SAT-002

- CSFM listing: 3226-0368:104

- UL 555C listing: R27832

- Meets NFPA Standards: 90A and 101

- Meets Building Code Standards: IBC, NBC, NFPA, SBC, & UBC

- Available for use with Delta Breez SIG Series ventilation fans
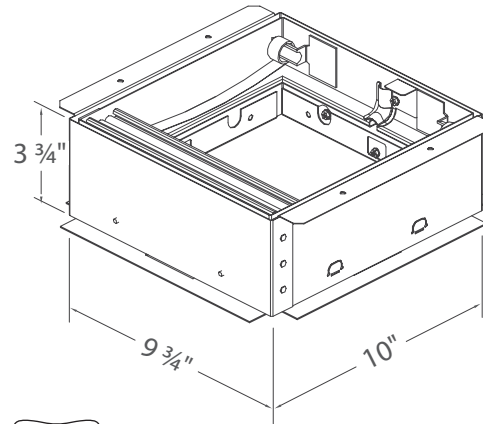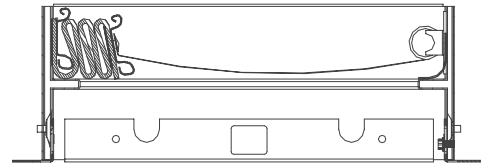
Delta BreezSignature SIG-DGL Designer Grille

The SIG-DGL designer fan grille is offered as an alternative to the standard grille on Delta Breez SIG80, SIG80D, SIG110, SIG110D, SIG110H, SIG80-110, SIG80-110D, SIG80-110H, SIG80-110MH, SIG80-110LED, SIG80-110DLED, SIG80-110HLED and SIG80-110MHLED

Features:

- Adds modern aesthetic to bathroom
- Made of long lasting ABS material
- Paintable to coordinate with any style bathroom
- Size: 12 ⅜" x 12 ⅜"
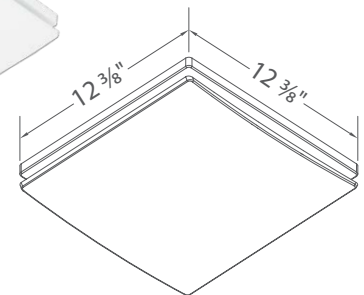
breez Smart

Delta BreezSmart Series (6" duct)

The Smart Choice.

Delta BreezSmart Series is the perfect ventilation solution for today's larger, spa-style bathrooms. Delivering high air movement at 130 CFM and 150 CFM, BreezSmart Series is virtually silent at <0.3 Sones, and consumes less than 18 Watts of power to reduce energy use and operating costs. Innovative brushless DC motors in every fan are engineered to outlast AC models by as much as 70%. Choose from single speed or dual speed models, or motion-sensing and humidity-sensing options with adjustable low speed and delay timers.

Features:

Innovative brushless DC motor design for long life, low noise, and low power consumption
- Energy savings up to 67% [1]
- <0.3 Sones - lowest noise level among competing fans
- Exceeds ENERGY STAR requirement by 220% in energy efficiency [2]
- Motion-sensing, humidity-sensing, LED and dual-speed options available with user-adjustable continuous low speed

Fan/LED light:
- 13-Watt LED main light and 2-Watt LED night light
- Main light output 800 Lumens, 2700K

1 Based upon BreezSmart SMT150 vs. market AC motor fan
2 Based upon ENERGY STAR v4.0 criteria for residential ventilating fans

Fan Only

LED

LED Indicator Light: SMT130M, SMT150D

Continous
Low Speed   Full Speed

LED Indicator Light: SMT130H

Humidity
Sensing   Full Speed
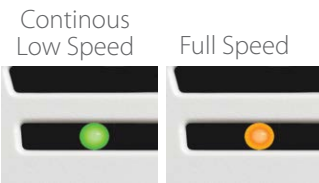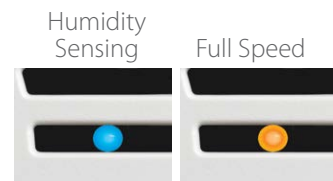
LED Indicator Light: SMT130, SMT150, SMT150LED

![breez Smart logo]

Delta BreezSmart Series (4" duct)

The Smart Choice.

Built-in Controls

SMT130H Controls

%RH | LOW SPEED CFM

SMT130M Controls

TIME(min) | LOW SPEED CFM

SMT150D Controls

TIME(min) | LOW SPEED CFM
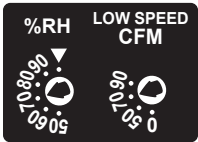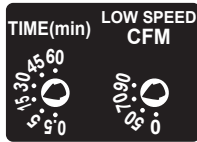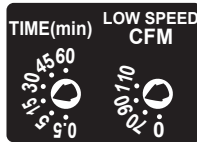
BreezSmart Series Dimensions

6"

7 11/16"

10 1/2"   11 3/8"
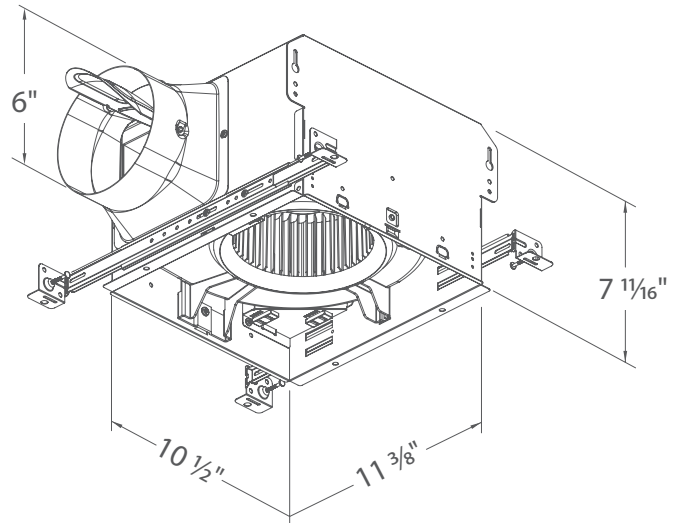
Fan Housing
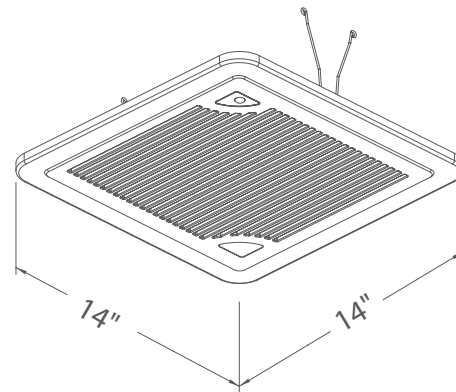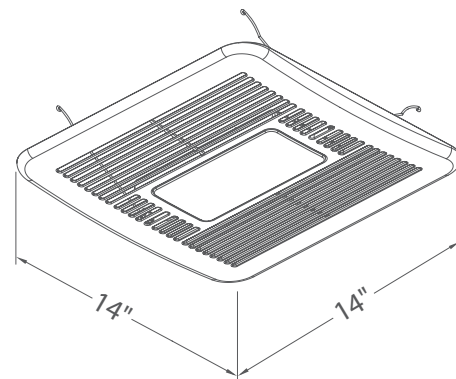
	Delta Breez	Market AC Motor
Energy Use (Watts)	16.9	51.3
Noise Level (Sones)	<0.3	1.4
Annual Energy Cost per Fan (24/7)[3]	$17.17	$53.94

3 Calculations based upon U.S. average retail electricity. Actual results may vary

14"   14"

Fan Grille

14"   14"

Fan/LED Light Grille

Specifications

SMT130* - 130 CFM Single Speed Exhaust Fan

Most Efficient 2017 ENERGY STAR www.energystar.gov

Static Pressure (Inches w.g.)	0.1	0.25
Air Flow (CFM)	130	124
Sones	<0.3	1.0
Power Consumption (Watts)	11.6	20.0
Energy Efficiency (CFM/Watts)	11.2	6.2
Current (Amps)	0.44 Max	
Power Rating (V/Hz)	120/60	

SMT130H* - 130 CFM with Humidity Sensor

Most Efficient 2017 ENERGY STAR www.energystar.gov

Fan Speed	Continuous Low Speed						Full Speed	
Static Pressure (Inches w.g.)	0.1	0.25	0.1	0.25	0.1	0.25	0.1	0.25
Air Flow (CFM)	50	49	70	68	90	88	130	124
Sones	<0.3	1.0	<0.3	1.0	<0.3	1.0	<0.3	1.0
Power Consumption (Watts)	5.6	12.2	6.9	13.5	8.0	15.5	11.6	20.0
Energy Efficiency (CFM/Watts)	8.9	4.0	10.1	5.0	11.2	5.6	11.2	6.2
Current (Amps)	0.44 Max							
Power Rating (V/Hz)	120/60							

SMT130M* - 130 CFM with Motion Sensor

Most Efficient 2017 ENERGY STAR www.energystar.gov

Fan Speed	Continuous Low Speed						Full Speed	
Static Pressure (Inches w.g.)	0.1	0.25	0.1	0.25	0.1	0.25	0.1	0.25
Air Flow (CFM)	50	49	70	68	90	88	130	124
Sones	<0.3	1.0	<0.3	1.0	<0.3	1.0	<0.3	1.0
Power Consumption (Watts)	5.6	12.2	6.9	13.5	8.0	15.5	11.6	20.0
Energy Efficiency (CFM/Watts)	8.9	4.0	10.1	5.0	11.2	5.6	11.2	6.2
Current (Amps)	0.44 Max							
Power Rating (V/Hz)	120/60							

SMT150 - 150 CFM Single Speed Exhaust Fan

Static Pressure (Inches w.g.)	0.1	0.25
Air Flow (CFM)	150	149
Sones	<0.3	1.3
Power Consumption (Watts)	16.9	23.7
Energy Efficiency (CFM/Watts)	8.8	6.2
Current (Amps)	0.47 Max	
Power Rating (V/Hz)	120/60	

SMT150D* - Adjustable 0-110/150 CFM Dual Speed Fan

Fan Speed	Continuous Low Speed						Full Speed	
Static Pressure (Inches w.g.)	0.1	0.25	0.1	0.25	0.1	0.25	0.1	0.25
Air Flow (CFM)	70	68	90	88	110	109	150	149
Sones	<0.3	1.0	<0.3	1.0	<0.3	1.0	<0.3	1.3
Power Consumption (Watts)	6.9	13.5	8.0	15.5	9.8	18.4	16.9	23.7
Energy Efficiency (CFM/Watts)	10.1	5.0	11.2	5.6	11.2	5.9	8.8	6.2
Current (Amps)	0.47 Max							
Power Rating (V/Hz)	120/60							

SMT150LED - 150 CFM Fan/LED Light/Night-Light

LED

Static Pressure (Inches w.g.)	0.1	0.25
Air Flow (CFM)	150	150
Sones	0.5	1.3
Power Consumption (Watts)	17.6	25.4
Energy Efficiency (CFM/Watts)	8.5	6.0
Current (Amps)	0.62 Max	
Power Rating (V/Hz)	120/60	
LED Main Light (Watts)	13	
LED Night Light (Watts)	2	

* Product is ENERGY STAR Most Efficient 2017 distinction and ENERGY STAR qualified

![breez GreenBuilder logo]
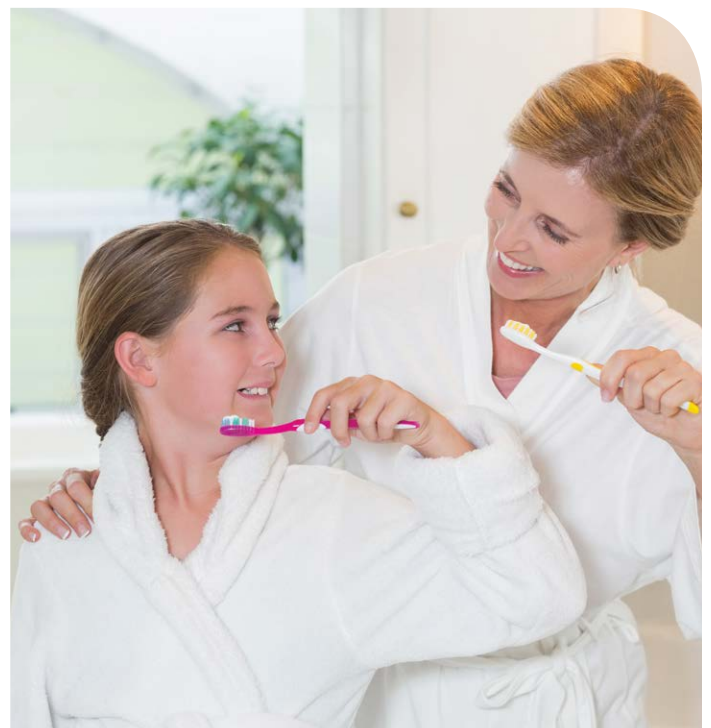
Delta BreezGreenBuilder Series (4" duct)

The Builder's Choice for Green Construction.

Delta BreezGreenBuilder ventilation fans mark a new achievement in bathroom ventilation for green construction. Built upon market-leading energy efficiency, exceptionally low power consumption and quiet operation, the BreezGreenBuilder series offers a LED light option as well as humidity sensing option with continuous low speed control.

BreezGreenBuilder stays true to what has made the GreenBuilder series a winning value proposition for builders and contractors: a super reliable Delta brushless DC motor, a compact lightweight design for quick installation coupled with sound and flow ratings that far surpass building requirements…all at an affordable price.

Features:

Innovative brushless DC motor design for long life, low noise, and low power consumption

- Energy savings up to 61%[1] and 4" duct (standard)
- Lowest Sone level rated by HVI as low as 0.8 Sones
- Power consumption down to 10.5 Watts
- Exceeds ENERGY STAR requirements by 192% in energy efficiency [2]
- Fan and Fan/dimmable LED Light combination project pack available
- Fan only models are UL listed for both ceiling-mount and wall-mount installation

Fan/Dimmable LED Light:

- 13-Watt Dimmable LED light included (dimmer switch not included). It is equivalent to a 60-Watt incandescent bulb
- Dimmable LED light output 850 lumens, 2700K

Fan/Dimmable LED Light DECOR:

- 13-Watt Dimmable LED light included (dimmer switch not included)
- Dimmable LED light output 950 Lumens, 3000K
- Beautifully designed ventilation fan with frosted glass globe and LED light allows for quiet ventilation
- 4-decorative fans in one; includes chrome, brushed nickel, brushed bronze, and polished white finials to match any décor

1 Based on GreenBuilder GBR80 vs. market AC motor fan
2 Based upon ENERGY STAR v4.0 criteria for residential ventilating fans

Fan Only

Fan/Dimmable LED Light

GBR100LED-DECOR
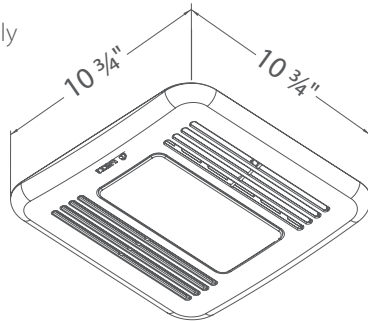
Project Pack Components Available

BreezGreenBuilder Series Dimensions
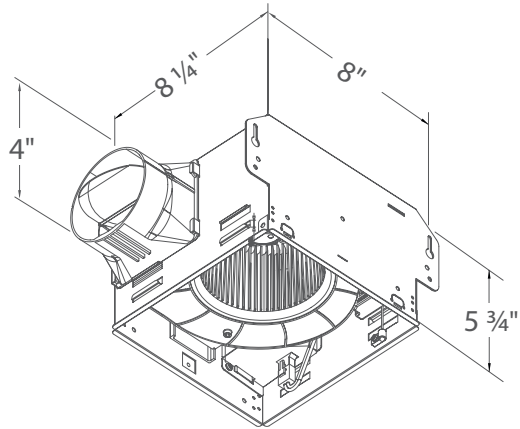
GreenBuilder Housing and motor

Dimensions: 8 1/4", 8", 4", 5 3/4"

Grille for Fan Only

Dimensions: 10 3/4" × 10 3/4"

Grille for Fan/LED Light

Dimensions: 10 3/4" × 10 3/4"
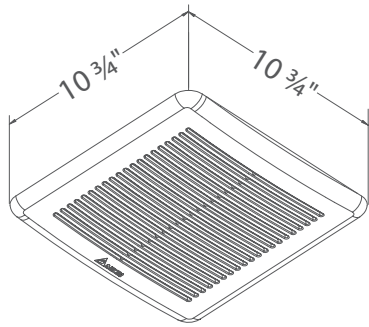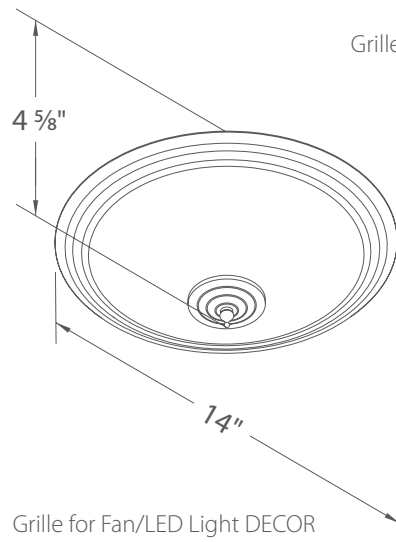
Grille for Fan/LED Light DECOR

Dimensions: 4 5/8", 14"

LED Indicator Light

Fan is running

LED Indicator Light:

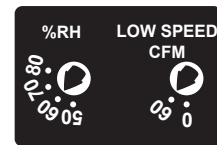GBR80HLED, GBR80MHLED, GBR100HLED

Humidity Sensing   Full Speed

Built-in Controls

GBR80H, GBR80HLED, GBR80MHLED

%RH   LOW SPEED CFM
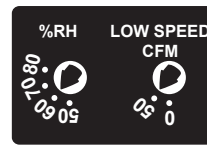
Built-in Controls

GBR100H, GBR100HLED

%RH   LOW SPEED CFM

ENERGY STAR · HVI CERTIFIED 2100 · c UL us

	Delta Breez	Market AC Motor
Energy Use (Watts)	10.5	26.9
Noise Level (Sones)	0.8	1.5
Annual Energy Cost per Fan (24/7)[1]	$11.04	$28.27

1 Calculations based upon U.S. average retail electricity. Actual results may vary

breez GreenBuilder

Delta BreezGreenBuilder Series (4" duct)
Specifications

GBR80 - 80 CFM Single Speed Exhaust Fan

Static Pressure (Inches w.g.)	0.1	0.25
Air Flow (CFM)	80	64
Sones	0.8	1.5
Power Consumption (Watts)	10.5	12.5
Energy Efficiency (CFM/Watts)	7.6	5.1
Current (Amps)	0.21 Max	
Power Rating (V/Hz)	120/60	
Project Pack Components Available GBR-A (housing) and GBR80-B (motor/grille)		

GBR80H - 80 CFM Fan with Humidity Sensor

Fan Speed	Continuous Low Speed		Full Speed	
Static Pressure (Inches w.g.)	0.1	0.25	0.1	0.25
Air Flow (CFM)	50	35	80	64
Sones	<0.3	1.0	0.8	1.5
Power Consumption (Watts)	4.0	6.0	9.7	11.8
Energy Efficiency (CFM/Watts)	12.5	5.8	8.2	5.4
Current (Amps)	0.22 Max			
Power Rating (V/Hz)	120/60			
Project Pack Components Available GBRH-A (housing) and GBR80H-B (motor/grille)				

GBR80HLED - 80 CFM
Fan/Dimmable LED Light with Humidity Sensor

Fan Speed	Continuous Low Speed		Full Speed	
Static Pressure (Inches w.g.)	0.1	0.25	0.1	0.25
Air Flow (CFM)	50	33	80	63
Sones	<0.3	0.8	0.8	1.5
Power Consumption (Watts)	4.4	6.0	11	13
Energy Efficiency (CFM/Watts)	11.3	5.5	7.2	4.8
Current (Amps)	0.33 Max			
Power Rating (V/Hz)	120/60			
Dimmable LED Light (Watts)	13			

GBR80LED - 80 CFM Fan/Dimmable LED Light

Static Pressure (Inches w.g.)	0.1	0.25
Air Flow (CFM)	80	63
Sones	0.8	1.5
Power Consumption (Watts)	11	13
Energy Efficiency (CFM/Watts)	7.2	4.8
Current (Amps)	0.33 Max	
Power Rating (V/Hz)	120/60	
Dimmable LED Light (Watts)	13	
Project Pack Components Available GBRLED-A (housing) and GBR80LED-B (motor/grille)		

GBR80MHLED - 80 CFM
Fan/Dimmable LED Light w/Humidity & Motion Sensor

Fan Speed	Continuous Low Speed		Full Speed	
Static Pressure (Inches w.g.)	0.1	0.25	0.1	0.25
Air Flow (CFM)	50	33	80	63
Sones	<0.3	0.8	0.8	1.5
Power Consumption (Watts)	4.4	6.0	11	13
Energy Efficiency (CFM/Watts)	11.3	5.5	7.2	4.8
Current (Amps)	0.33 Max			
Power Rating (V/Hz)	120/60			
Dimmable LED Light (Watts)	13			

GBR100 - 100 CFM Single Speed Exhaust Fan

Static Pressure (Inches w.g.)	0.1	0.25
Air Flow (CFM)	100	77
Sones	1.4	1.5
Power Consumption (Watts)	12.6	11.6
Energy Efficiency (CFM/Watts)	7.9	6.6
Current (Amps)	0.22 Max	
Power Rating (V/Hz)	120/60	
Project Pack Components Available GBR-A (housing) and GBR100-B (motor/grille)		

GBR100H - 100 CFM Fan with Humidity Sensor

Fan Speed	Continuous Low Speed		Full Speed	
Static Pressure (Inches w.g.)	0.1	0.25	0.1	0.25
Air Flow (CFM)	60	42	100	77
Sones	0.5	0.7	1.4	1.5
Power Consumption (Watts)	4.9	6.3	12.6	12.5
Energy Efficiency (CFM/Watts)	12.2	6.6	7.9	6.1
Current (Amps)	0.24 Max			
Power Rating (V/Hz)	120/60			
Project Pack Components Available GBRH-A (housing) and GBR100H-B (motor/grille)				

GBR100HLED - 100 CFM Fan/Dimmable LED Light with Humidity Sensor

Fan Speed	Continuous Low Speed		Full Speed	
Static Pressure (Inches w.g.)	0.1	0.25	0.1	0.25
Air Flow (CFM)	60	42	100	72
Sones	0.6	1.0	1.5	1.5
Power Consumption (Watts)	4.8	6.2	13.6	11.6
Energy Efficiency (CFM/Watts)	12.5	6.7	7.3	6.2
Current (Amps)	0.35 Max			
Power Rating (V/Hz)	120/60			
Dimmable LED Light (Watts)	13			

GBR100LED - 100 CFM Fan/Dimmable LED Light

Static Pressure (Inches w.g.)	0.1	0.25
Air Flow (CFM)	100	72
Sones	1.5	1.5
Power Consumption (Watts)	13.6	11.6
Energy Efficiency (CFM/Watts)	7.3	6.2
Current (Amps)	0.35 Max	
Power Rating (V/Hz)	120/60	
LED Module (Watts)	13	
Project Pack Components Available GBRLED-A (housing) and GBR100LED-B (motor/grille)		

GBR100LED-DECOR - 100 CFM Fan/Dimmable LED Light Decor

Static Pressure (Inches w.g.)	0.1	0.25
Air Flow (CFM)	100	72
Sones	1.5	2.0
Power Consumption (Watts)	13	12.5
Energy Efficiency (CFM/Watts)	7.6	5.7
Current (Amps)	0.32 Max	
Power Rating (V/Hz)	120/60	
LED Module (Watts)	13	

Delta BreezGreenBuilder GBR-DGL Designer Grille

The GBR-DGL designer fan grille is offered as an alternative to the standard grille on GBR80, GBR80H, GBR100, and GBR100H.

Features:
- Adds modern aesthetic to bathroom
- Made of long-lasting ABS material
- Paintable to coordinate with any style bathroom
- Size: 10 ¾" x 10 ¾"
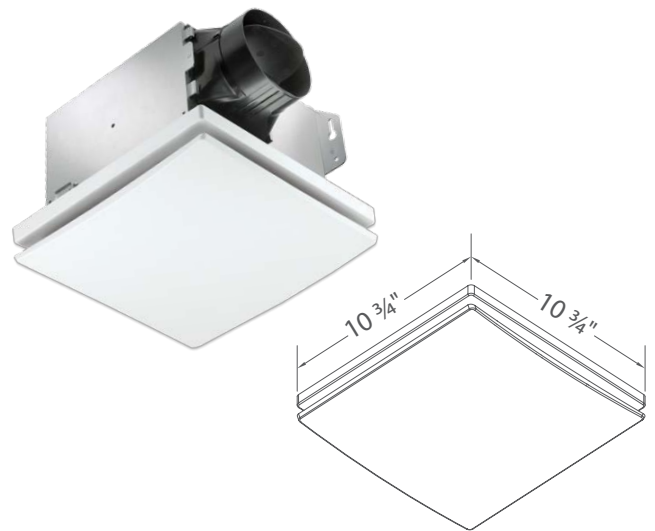
Delta BreezGreenBuilder GBR-CRD Ceiling Radiation Damper

The damper employs a folded curtain style blade for point-of-origin control of radiant heat in a ventilation system. GBR-CRD installs in the ceiling membrane for floor/ceiling or roof/ceiling assemblies with a fire resistance rating up to and including 3 hours.

Features:

- UL and cUL listed and exceeds UL 555C for use in 3-hour fire rated assemblies
- Warnock-Hersey certified for use in fire rated floor/ceiling or roof/ceiling assemblies
- CSFM listing: 3226-0368:104
- Meets NFPA Standards: 90A and 101
- Meets Building Code Standards: IBC, NBC, NFPA, SBC, and UBC
- Available for use with Delta Breez GBR Series ventilation fans

5 ⅛"

8 ½"

8 ¾"
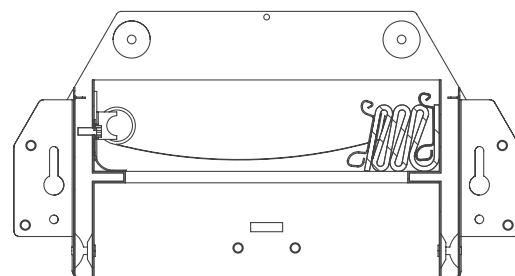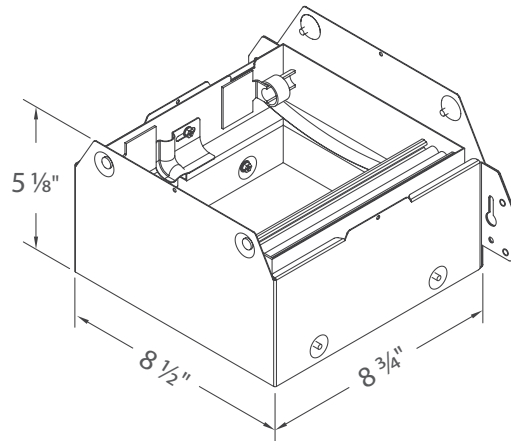
Delta BreezSlim Series
(4" oval duct / 3" round duct)

The BreezSlim series of fans are suitable for ceiling or sidewall installation. All BreezSlim fans are ENERGY STAR qualified and fit in a 4" wall. Delta Breez SLM80 and SLM100 models offer a 4" metal oval duct adapter with a 4-3" plastic round duct adapter. As with all Delta Breez fans, BreezSlim series fans also feature an LED indicator light underneath the grille to assure the user that this quiet fan is running.

Features:

Slim design with innovative brushless DC motor design for long life, low noise, and low power consumption

- 4" Oval Duct:
  - Noise level at down to 0.6 Sones
  - Annual energy cost for 24/7 operation is approximately $8.94 [1]
  - Ultra low power consumption down to 8.5 Watts
- UL approved for ceiling and wall mount installation
- LED indicator light green when power is on

	Delta Breez	Market AC Motor
Energy Use (Watts)	8.5	25.7
Noise Level (Sones)	0.6	1.1
Annual Energy Cost per Fan (24/7)[1]	$8.94	$27.02

LED Indicator Light: SLM80, SLM100

1 Calculations based upon U.S. average retail electricity. Actual results may vary

![ENERGY STAR] ![HVI 2100 CERTIFIED] ![c UL US]

3"
3" Round duct
11 ¼"
10 ½"
4"
4" Oval duct
14"
14"
Fan Grille
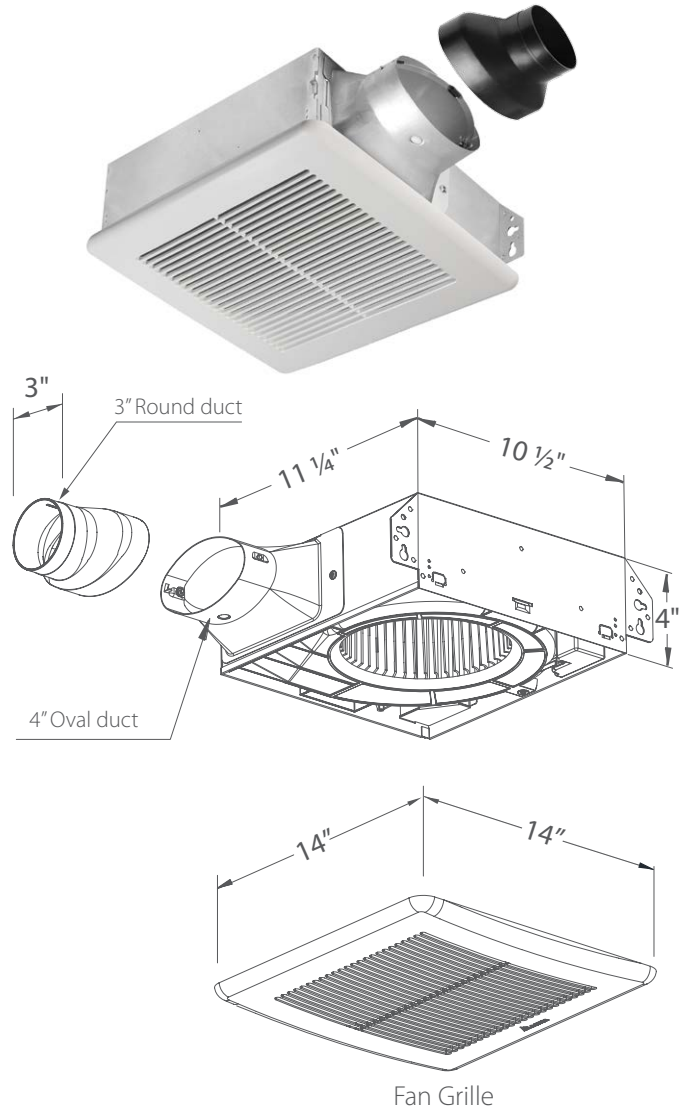
Specifications

SLM80 - 80 CFM Single Speed Exhaust Fan

	4" Oval duct	
Static Pressure (Inches w.g.)	0.1	0.25
Air Flow (CFM)	80	62
Sones	0.6	1.1
Power Consumption (Watts)	8.5	10.9
Energy Efficiency (CFM/Watts)	9.4	5.6
Current (Amps)	0.26 Max	
Power Rating (V/Hz)	120/60	
Project Pack Components Available SLM-A2 (housing) and SLM80-B (motor grille)		

SLM100 - 100 CFM Single Speed Exhaust Fan

	4" Oval duct	
Static Pressure (Inches w.g.)	0.1	0.25
Air Flow (CFM)	100	84
Sones	1.0	1.5
Power Consumption (Watts)	14.5	17.7
Energy Efficiency (CFM/Watts)	6.8	4.7
Current (Amps)	0.3 Max	
Power Rating (V/Hz)	120/60	
Project Pack Components Available SLM-A2 (housing) and SLM100-B (motor grille)		

Delta BreezSlim Series (3" duct)

Super Low Profile. Super Low Energy Consumption.

Weighing in at less than 5 lbs., the powerful yet compact Delta BreezSlim sets the bar for performance in the popular small fan size of 7 1/2" x 7 1/4" x 4". Operating at just 1.0 Sone, this quiet fan features Delta's super reliable brushless DC motor, an LED indicator light so you know it's running, and a modern grille design. Perfect for retrofit into an existing space or for ceiling mount or wall mount installation (UL listed for both) into your next multifamily or single-family project. BreezSlim breaks the mold of the everyday bathroom exhaust fan. Available in contractor packs.

Features:

Innovative brushless DC motor design for long life, low noise, and low power consumption.

- Energy savings up to 85% [1] and 3" duct (standard)
- 1 Sone – The quietest ever in a 7 ½" x 7 ¼" bath fan
- Exceeds ENERGY STAR requirements by 217% in energy efficiency [2]
- UL listed for both ceiling-mount and wall-mount installation

1 Based upon SLM50 vs. market AC motor
2 Based upon ENERGY STAR v4.0 criteria for residential ventilating fans

Available with
Project Pack Components

Available with
metal duct adapter

LED Indicator Light:
SLM50, SLM70

LED Indicator Light:
SLM70H

3"
4"
7¼"
7½"

Fan Housing

9 ⅜"
10 ¾"
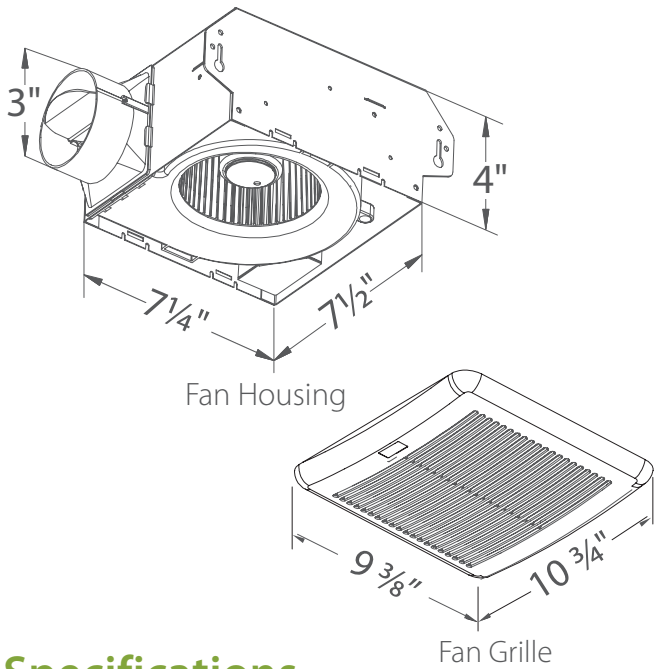
Fan Grille

Delta BreezSignature SLM-DGL Designer Grille

The SLM-DGL designer fan grille is offered as an alternative to the standard grille on Delta Breez SLM50, SLM70 and SLM70H

Features:
- Adds modern aesthetic to bathroom
- Made of long-lasting ABS material
- Paintable to coordinate with any style bathroom
- Size: 10 ¾" x 10 ¾"

10 ¾"
10 ¾"
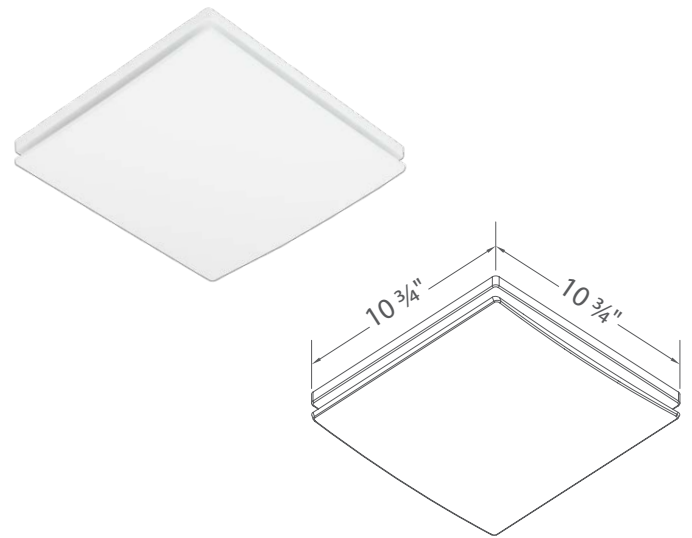
Specifications

SLM50 - 50 CFM Single Speed Exhaust Fan

	3" Duct (Standard)	
Static Pressure (Inches w.g.)	0.1	0.25
Air Flow (CFM)	50	36
Sones	1.0	1.2
Power Consumption (Watts)	6.4	6.3
Energy Efficiency (CFM/Watts)	11.6	7.4
Current (Amps)	0.18 Max	
Power Rating (V/Hz)	120/60	
Project Pack Components Available SLM-A (housing) and SLM50-B (motor grille)		

SLM70 - 70 CFM Single Speed Exhaust Fan

	3" Duct (Standard)	
Static Pressure (Inches w.g.)	0.1	0.25
Air Flow (CFM)	70	54
Sones	2.0	1.5
Power Consumption (Watts)	13.2	11.6
Energy Efficiency (CFM/Watts)	5.8	5.0
Current (Amps)	0.29 Max	
Power Rating (V/Hz)	120/60	
Project Pack Components Available SLM-A (housing) and SLM70-B (motor grille)		

SLM70H - 70 CFM Fan with Humidity sensor

	3" Duct (Standard)	
Static Pressure (Inches w.g.)	0.1	0.25
Air Flow (CFM)	70	54
Sones	2.0	1.5
Power Consumption (Watts)	13.2	11.6
Energy Efficiency (CFM/Watts)	5.8	5.0
Current (Amps)	0.29 Max	
Power Rating (V/Hz)	120/60	
Project Pack Components Available SLM-A (housing) and SLM70H-B (motor grille)		
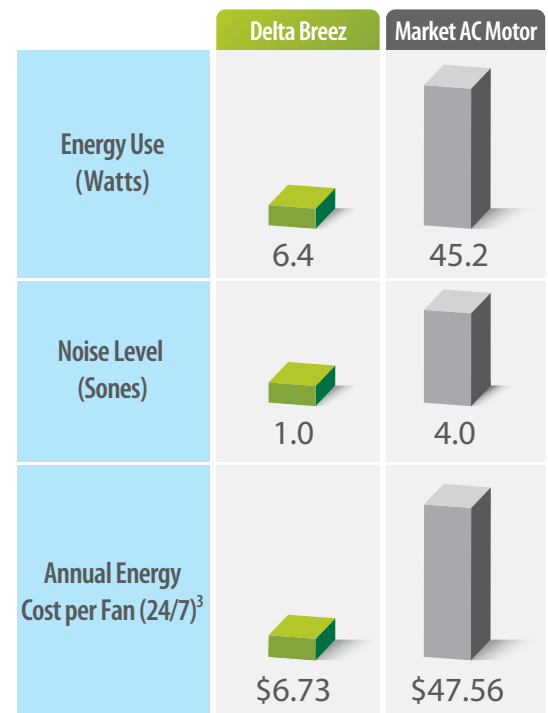
* Product is ENERGY STAR Most Efficient 2017 distinction and ENERGY STAR qualified

	Delta Breez	Market AC Motor
Energy Use (Watts)	6.4	45.2
Noise Level (Sones)	1.0	4.0
Annual Energy Cost per Fan (24/7)[3]	$6.73	$47.56

3 Calculations based upon U.S. average retail electricity. Actual results may vary

Delta BreezIntegrity Series (4" duct)

Delta BreezIntegrity series is ENERGY STAR qualified with brushless DC motor engineered to run continuously for a minimum 70,000 hours. UL and cUL listed for tub/shower enclosure when used with GFCI-protected branch circuit wiring.

Features:

Innovative brushless DC motor design for long life, low noise, and low power consumption

- Power rating of 120 volts/60Hz
- Brushless DC motor engineered to run continuously
- Motor equipped with thermal cutoff fuse
- Removable with permanently lubricated plug-in motor
- Built-in soft start function to increase bearings' life
- Automatically powers off when impeller is locked abnormally

Fan/Dimmable LED Light:

- 13-Watt LED light included (equivalent to a 60-Watt incandescent bulb)
- Main light output 850 lumens, 2700K
- Dimmable LED light (dimmer switch not included)

Bluetooth® Speaker:

- Bluetooth® 3.0, Speaker 3W and 4 Ohm
- Play audio through most Bluetooth® wireless devices

The Bluetooth® word mark and logos are registered trademarks owned by Bluetooth® SIG, Inc. and any use of such marks by Delta Electronics, Inc. is under license. Other trademarks and trade names are those of their respective owners.

Fan with Bluetooth® speaker

Fan Only

Built-in Controls
ITG80H
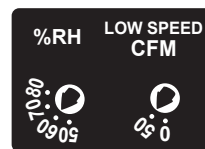
Project Pack

BreezIntegrity Series Dimensions

4"
5 ¾"
7 ½"
7 ¼"

9 ⅜"
10 ¾"
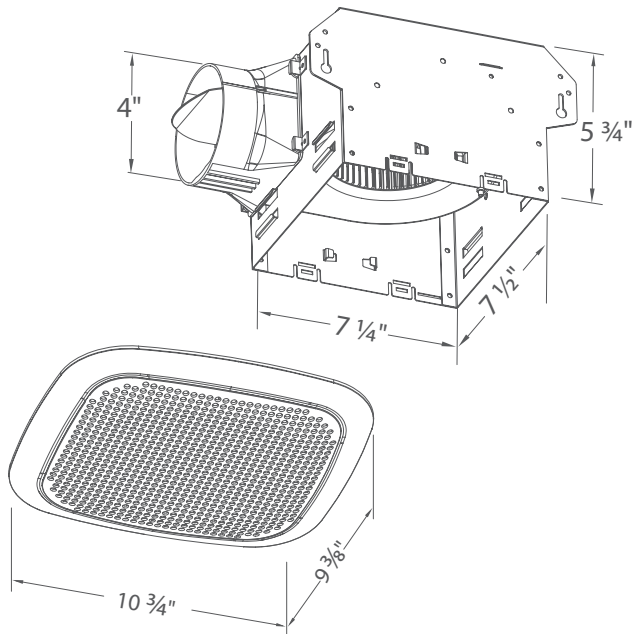
Grille for Fan with Bluetooth® Speaker

9 ⅜"
10 ¾"

Grille for Fan Only

10 ¾"
10 ¾"
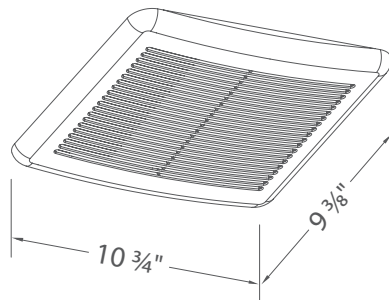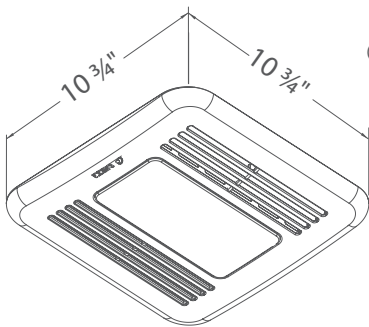
Grille for Fan/LED Light

Specifications

ITG50* - 50 CFM Fan

Static Pressure (Inches w.g.)	0.1	0.25
Air Flow (CFM)	50	37
Sones	0.7	1.3
Power Consumption (Watts)	5.0	7.0
Energy Efficiency (CFM/Watts)	12.5	6.7
Current (Amps)	0.14 Max	
Power Rating (V/Hz)	120/60	
Project Pack Components Available ITG-A (housing) and ITG50-B (motor grille)		

ITG50LED* - 50 CFM Fan/Dimmable LED Light

Static Pressure (Inches w.g.)	0.1	0.25
Air Flow (CFM)	50	38
Sones	0.7	1.3
Power Consumption (Watts)	5.0	7.0
Energy Efficiency (CFM/Watts)	11	6.5
Current (Amps)	0.22 Max	
Power Rating (V/Hz)	120/60	
LED Light (Watts)	13	

ITG70BT* - 70 CFM Fan w/ Bluetooth® Speaker

Static Pressure (Inches w.g.)	0.1	0.25
Air Flow (CFM)	70	59
Sones	1.0	1.5
Power Consumption (Watts)	8.4	10.0
Energy Efficiency (CFM/Watts)	10.6	5.9
Current (Amps)	0.22 Max	
Power Rating (V/Hz)	120/60	

ITG80 - 80 CFM Fan

Static Pressure (Inches w.g.)	0.1	0.25
Air Flow (CFM)	80	60
Sones	1.3	1.4
Power Consumption (Watts)	10	11
Energy Efficiency (CFM/Watts)	8.4	6.6
Current (Amps)	0.20 Max	
Power Rating (V/Hz)	120/60	
Project Pack Components Available ITG-A (housing) and ITG80-B (motor grille)		

ITG80H - 80 CFM Fan with Humidity Sensor

Fan Speed	Continuous Low Speed		Full Speed	
Static Pressure (Inches w.g.)	0.1	0.25	0.1	0.25
Air Flow (CFM)	50	36	80	60
Sones	0.7	1.0	1.5	1.5
Power Consumption (Watts)	5.0	7.0	10.0	11.0
Energy Efficiency (CFM/Watts)	12.0	6.9	9.0	6.2
Current (Amps)	0.20 Max			
Power Rating (V/Hz)	120/60			

ITG80LED - 80 CFM Fan/Dimmable LED Light

Static Pressure (Inches w.g.)	0.1	0.25
Air Flow (CFM)	80	60
Sones	1.3	1.5
Power Consumption (Watts)	11.3	11.5
Energy Efficiency (CFM/Watts)	7.2	6.2
Current (Amps)	0.28 Max	
Power Rating (V/Hz)	120/60	
LED Light (Watt)	13	

* Product is ENERGY STAR Most Efficient 2017 distinction and ENERGY STAR qualified

![breez Integrity logo]

Delta BreezIntegrity ITG-CRD Ceiling Radiation Damper

The damper employs a folded curtain style blade for point-of-origin control of radiant heat in a ventilation system. ITG-CRD installs in the ceiling membrane for floor/ceiling or roof/ceiling assemblies with a fire resistance rating up to and including 3 hours.

Features:
- UL and cUL listed and exceeds UL 555C for use in 3-hour fire rated assemblies
- Warnock-Hersey certified for use in fire rated floor/ceiling or roof/ceiling assemblies
- Available for use with Delta Breez ITG Series ventilation fans

5 ⅝"

8"   8½"
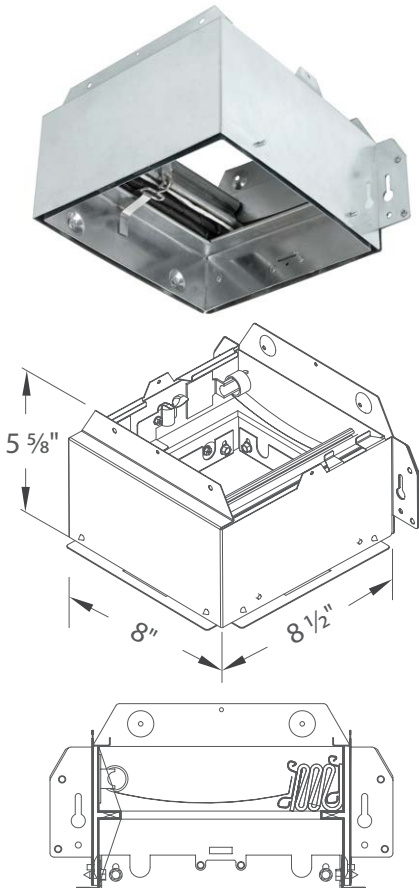
Delta SLM-DGL Designer Grille

The SLM-DGL designer fan grille is offered as an alternative to the standard grille on Delta Breez ITG50, ITG70BT, ITG80, and ITG80H

Features:
- Adds modern aesthetic to bathroom
- Made of long-lasting ABS material
- Paintable to coordinate with any style bathroom
- Size: 10 ¾" x 10 ¾"

10 ¾"   10 ¾"
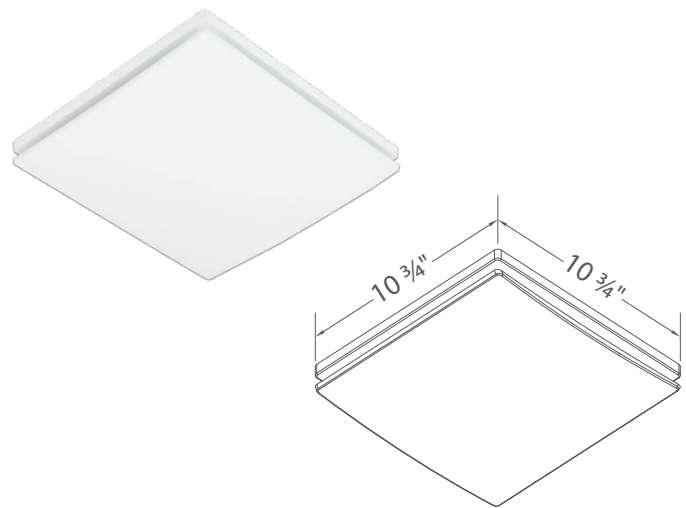
	Delta Breez	Market AC Motor
Energy Use (Watts)	9.5	52.0
Noise Level (Sones)	1.3	6.0
Annual Energy Cost per Fan (24/7)[1]	$9.99	$54.66

1 Calculations based upon U.S. average retail electricity. Actual results may vary

breez
Recessed

Delta BreezRecessed (4" duct)

Delta BreezRecessed incorporates brushless DC motor fan technology into an LED recessed can light for the ultimate in design and performance.

Features:

- ENERGY STAR qualified
- Brushless DC motor lasts 70,000 hours for extended reliability
- Warm, white LED main light at 2700K, 1000 lumens
- Quiet Operation at 1.5 Sones

Fan/LED Light:

- 11-Watt LED main light included
- 2-Watt LED night light included
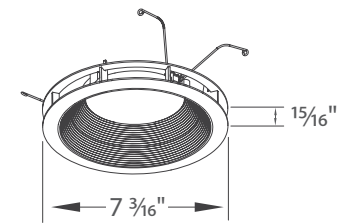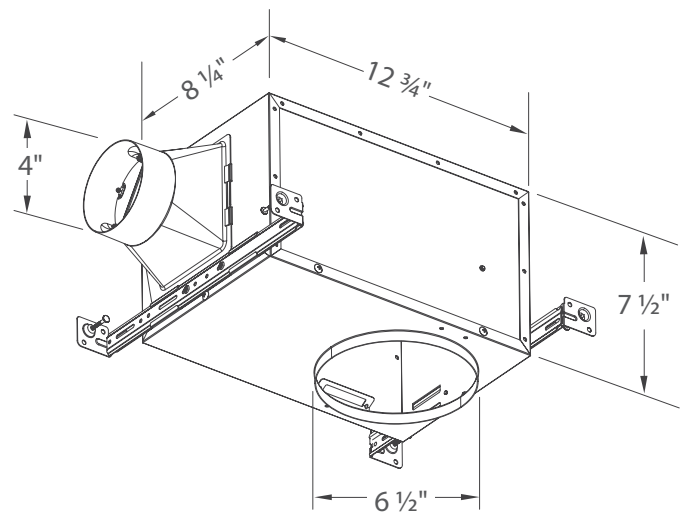
	Delta Breez	Market AC Motor
Energy Use (Watts)	14.5	34.4
Noise Level (Sones)	1.5	1.5
Annual Energy Cost per Fan (24/7)[1]	$15.25	$35.91

1 Calculations based upon U.S. average retail electricity. Actual results may vary

Specifications

REC80LED - 80 CFM Fan/LED Light

Static Pressure (Inches w.g.)	0.1	0.25
Air Flow (CFM)	80	71
Sones	1.5	2.0
Power Consumption (Watts)	14.5	14.5
Energy Efficiency (CFM/Watts)	5.9	5.2
Current (Amps)	0.34 Max	
Power Rating (V/Hz)	120/60	
LED Main Light (Watts)	11	
LED Night Light (Watts)	2	

![breez Radiance logo]

Delta BreezRadiance (4" duct)

The Delta BreezRadiance series combines a quiet bath fan, bathroom LED light and bathroom heater all in one with built-in thermostat and brushless DC motor for superior reliability and efficiency. Features a 1300/1600 Watt heating element with built-in thermostat for consistent temperature. Contemporary grille with LED light included. cUL listed and HVI certified.

Features:

Innovative design for long life, low noise, and low power consumption

- Energy saving DC motor technology
- Built-in thermostat for consistent temperature
- Metal guard to prevent user contact with heating element
- Heater module equipped with thermal cut off fuse
- Duct diameter of 4"
- 1300/1650 Watts heating element evaluated by cUL for safety standards

Fan/LED Light:

- 13-Watt LED lamp included (equivalent to a 60-Watt incandescent bulb)
- Main light output 850 lumens, 2700K
- Dimmable LED Light (dimmer switch not included)

RAD80 Fan with Heater

4"
5 ½"
14 ³/₈ "
8 ¹/₄"
16 ¹³/₁₆ "
10 ¹¹/₁₆ "

HVI CERTIFIED 2100

c UL US
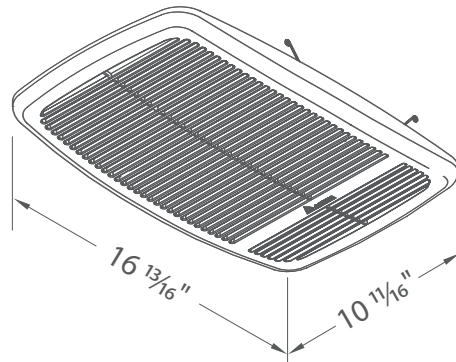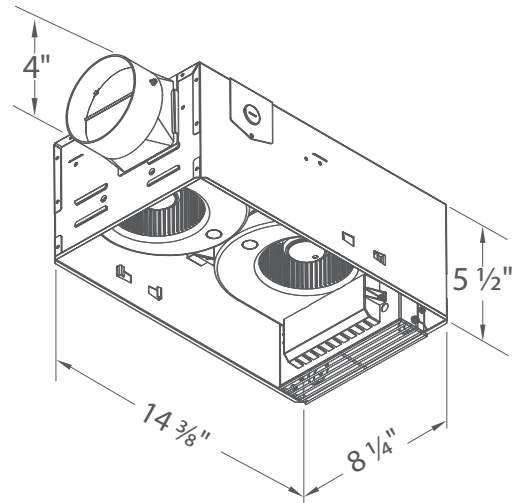
Built-in thermostat

	Delta Breez	Market AC Motor
Energy Use (Watts)	10.5	58
Noise Level (Sones)	1.5	4.0
Annual Energy Cost per Fan (24/7)[1]	$11.04	$60.54

1 Calculations based upon U.S. average retail electricity. Actual results may vary

Specifications

RAD80 - 80 CFM Fan with Heater

Static Pressure (Inches w.g.)	0.1	0.25
Air Flow (CFM)	80	54
Sones	1.5	NA
Power Consumption (Watts)	10.5	8.2
Energy Efficiency (CFM/Watts)	7.6	6.6
Current (Amps)	12	
Power Rating (V/Hz)	120/60	
Heating element (Watts)	1300	
Total power (Watts)	1314	

RAD80LED Fan/LED Light/Heater

LED

4"

5 ½"

14 ³⁄₈ "

8 ¼"

16 ¹³⁄₁₆ "

10 ¹¹⁄₁₆ "

RAD110LED Fan/LED Light/Heater

LED

4"

7 ½"

15 ¼ "

9 ½"

18 ⁷⁄₈ "

12"

RAD80LED - 80 CFM Fan/LED Light with Heater   LED

Static Pressure (Inches w.g.)	0.1	0.25
Air Flow (CFM)	80	54
Sones	1.5	N/A
Power Consumption (Watts)	10.5	8.2
Energy Efficiency (CFM/Watts)	7.6	6.6
Current (Amps)	12	
Power Rating (V/Hz)	120/60	
Heating element (Watts)	1300	
Lamp (Watts)	13	
Total power (Watts)	1327	

RAD110LED - 110 CFM Fan/LED Light with Heater   LED

Static Pressure (Inches w.g.)	0.1	0.25
Air Flow (CFM)	110	85
Sones	0.7	1.0
Power Consumption (Watts)	12.0	13.0
Energy Efficiency (CFM/Watts)	11	7.8
Current (Amps)	14	
Power Rating (V/Hz)	120/60	
Heating element (Watts)	1600	
Lamp (Watts)	13	
Total power (Watts)	1650	

breez Pro

Delta BreezProfessional (6" duct)

The Delta BreezProfessional Pro200 and Pro300 offer powerful airflow extraction for heavier applications but with quiet operation. It is ENERGY STAR qualified with brushless DC motor engineered to run continuously for a minimum 70,000 hours. These fans feature an LED indicator running light and motor lock protection and is UL/cUL listed for use over a bathtub or shower when installed in a GFCI protected branch circuit.

Features:

- DC motor technology, energy saving up to 60% [1]
- Galvanized steel body
- Detachable 6" diameter metal duct adapter
- Built-in backdraft damper
- LED indicator light green when power is on

LED Indicator Light:
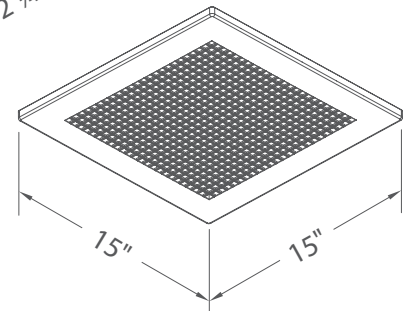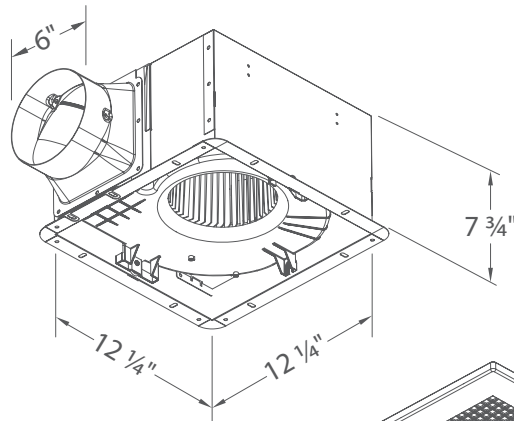
	Delta Breez	Market AC Motor
Energy Use (Watts)	17.5	43.7
Noise Level (Sones)	1.0 (200CFM)	0.8 (190CFM)
Annual Energy Cost per Fan (24/7)[2]	$18.40	$45.62

1 Based upon Breez Pro200 vs. Market AC motor
2 Calculations based upon U.S. average retail electricity. Actual results may vary

Specifications

Pro200* - 200 CFM Fan

Most Efficient 2017 www.energystar.gov

Static Pressure (Inches w.g.)	0.1	0.25
Air Flow (CFM)	200	163
Sones	1.0	1.3
Power Consumption (Watts)	17.5	21.5
Energy Efficiency (CFM/Watts)	11.4	7.5
Current (Amps)	0.52 Max	
Power Rating (V/Hz)	120/60	

Pro300 - 300 CFM Fan

Static Pressure (Inches w.g.)	0.1	0.25
Air Flow (CFM)	300	268
Sones	2.0	2.5
Power Consumption (Watts)	41	43
Energy Efficiency (CFM/Watts)	7.3	6.2
Current (Amps)	0.72 Max	
Power Rating (V/Hz)	120/60	

* Product is ENERGY STAR Most Efficient 2017 distinction and ENERGY STAR qualified

6"

7 ¾"

12 ¼"   12 ¼"

15"   15"

Delta Breez Fan Curves

BreezSignature Fan Curves

SIG80-110 Fan Curve
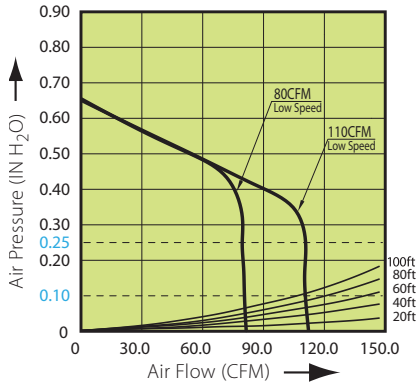
SIG80-110LED Fan Curve
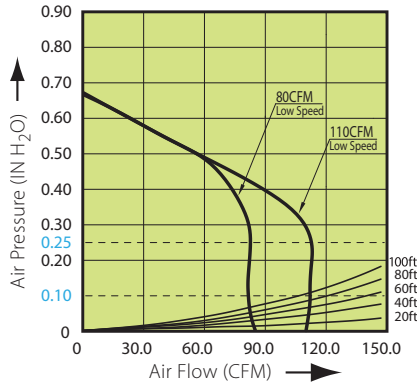
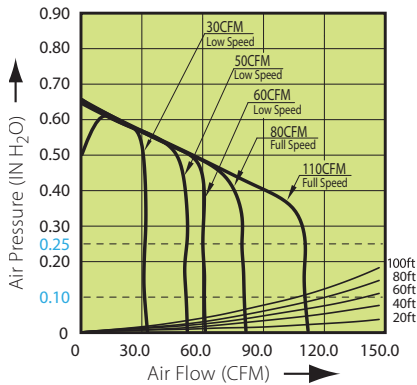### SIG80-110D Fan Curve
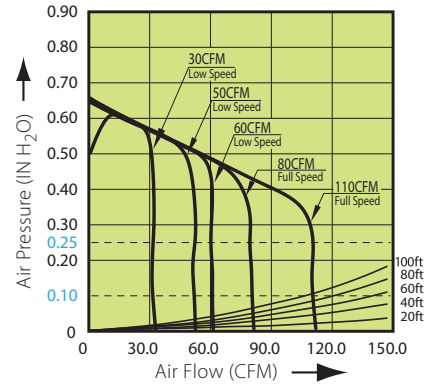
SIG80-110DLED Fan Curve
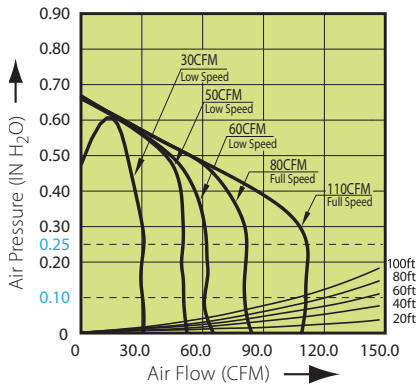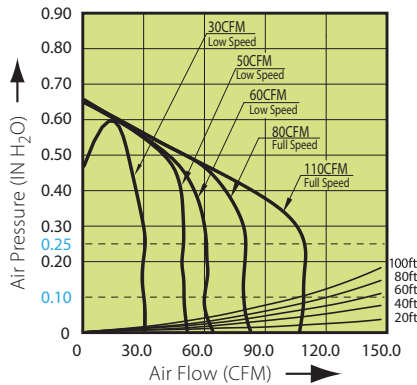

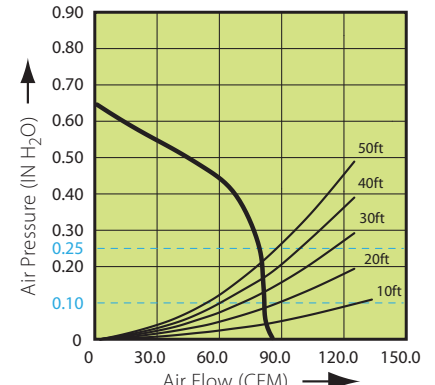### SIG80-110H Fan Curve
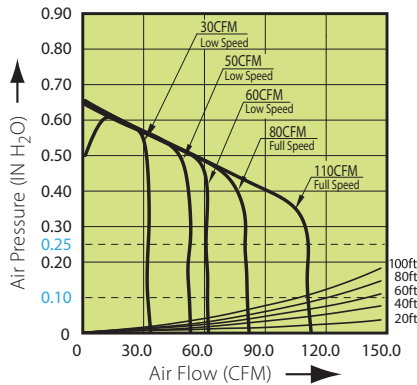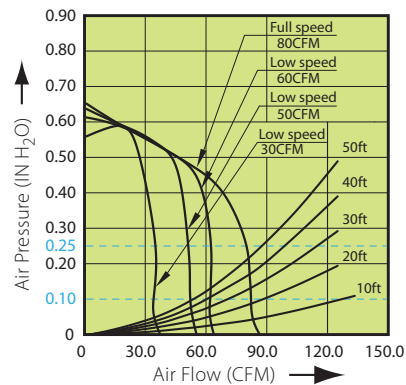

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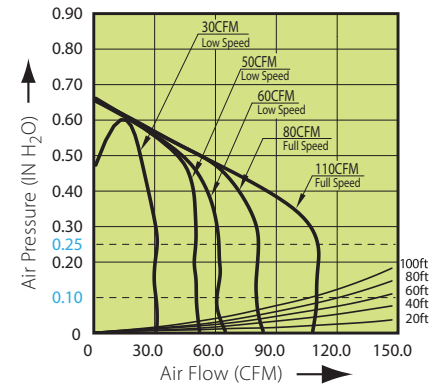
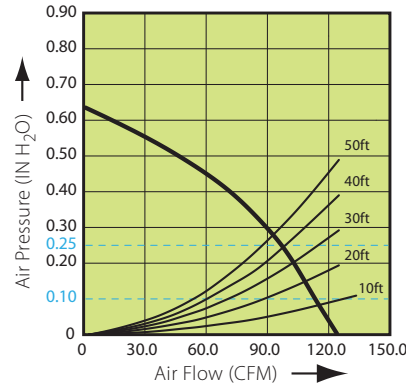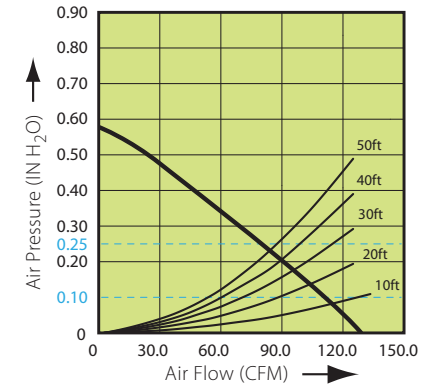### SIG80-110MH Fan Curve

SIG80-110MHLED Fan Curve

SIG80 Fan Curve

SIG80D Fan Curve

SIG110 Fan Curve

VFB25ADBT Fan Curve

Delta Breez Fan Curves

VFB25ACH Fan Curve
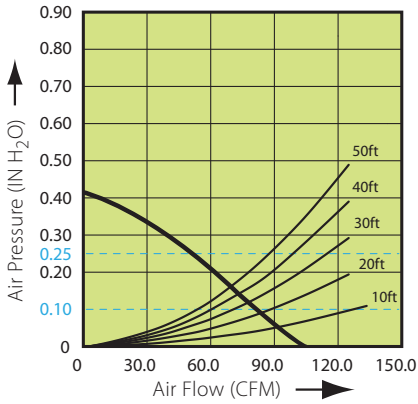
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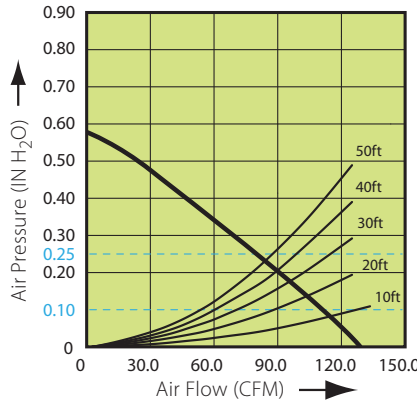
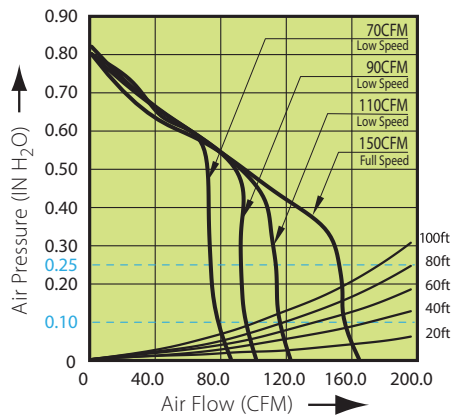### VFB25AEH Fan Curve
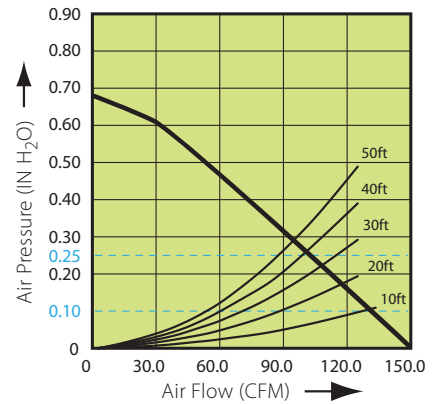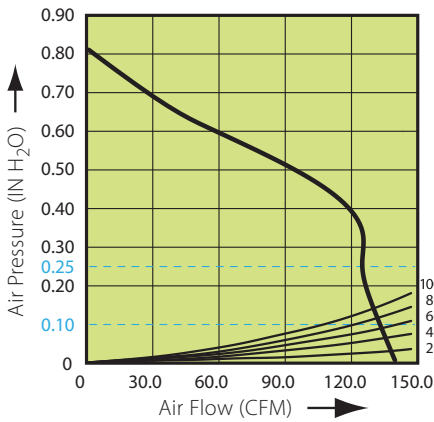
SMT130 Fan Curve

SMT130H & SMT130M Fan Curve
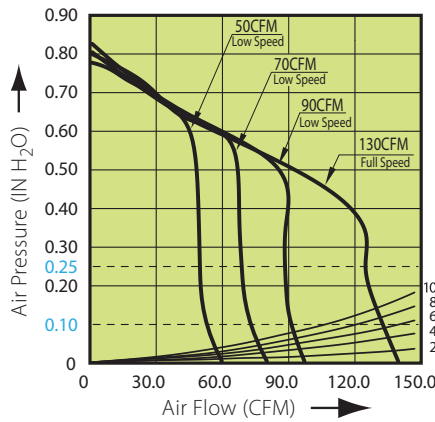
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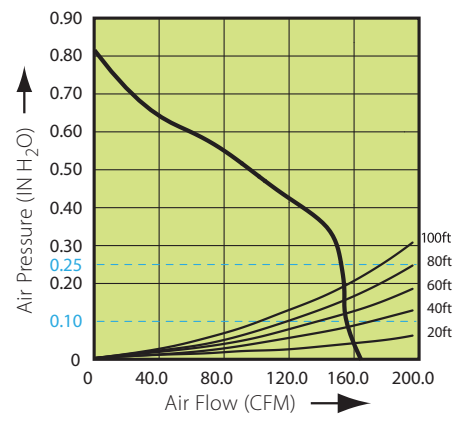
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SMT150LED Fan Curve
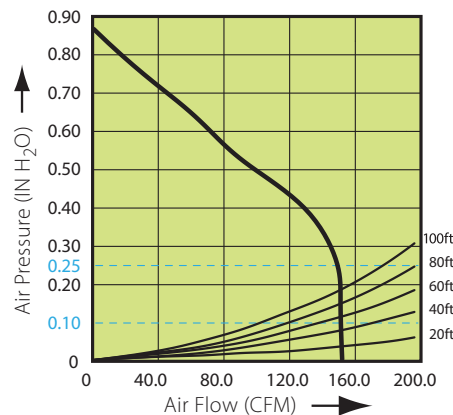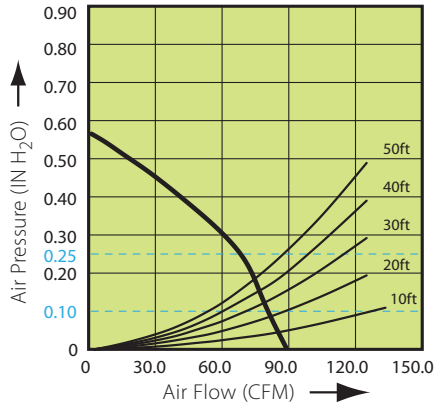
GBR80 Fan Curve

GBR80H Fan Curve
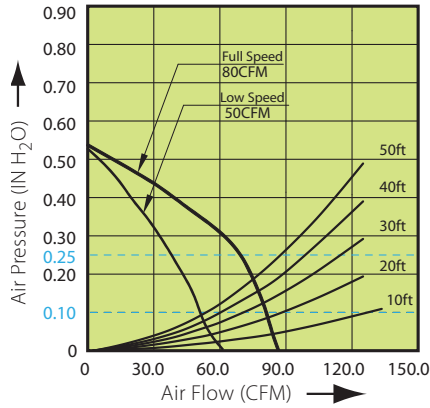
GBR80HLED & GBR80MHLED Fan Curve
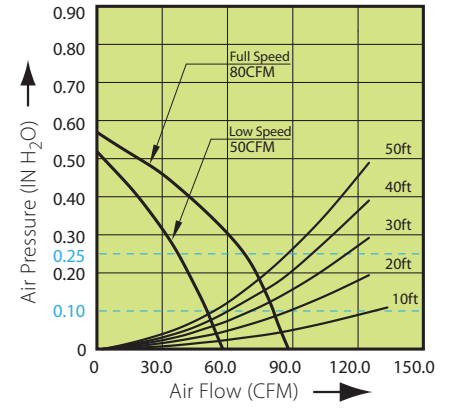
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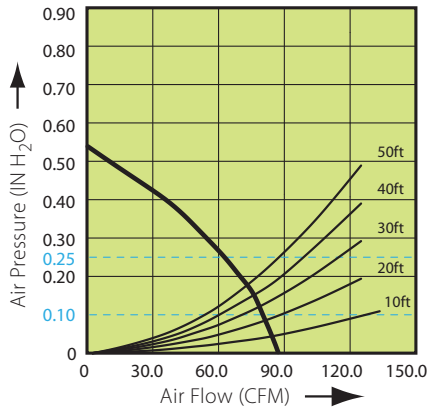
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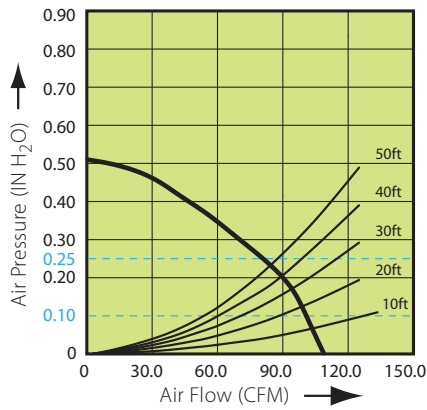
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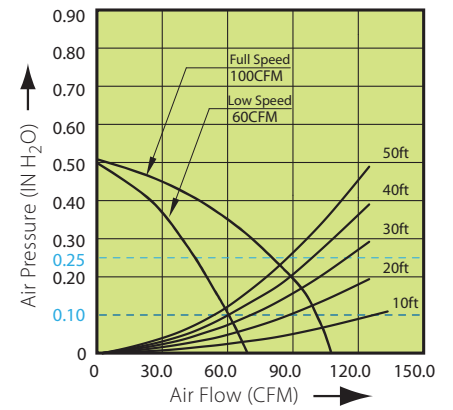
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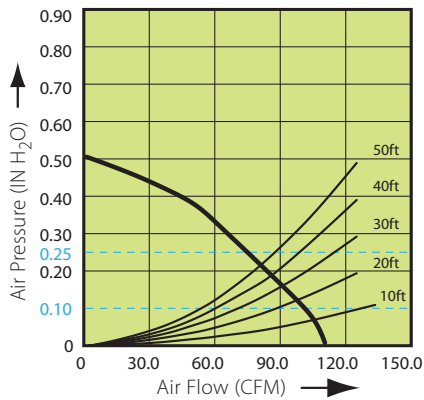
GBR100LED-DECOR Fan Curve
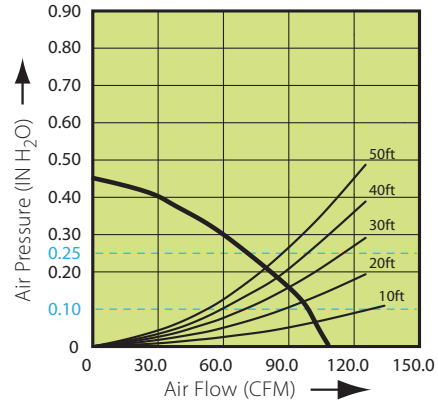
Delta Breez Fan Curves

BreezSlim Fan Curves

SLM50 Fan Curve
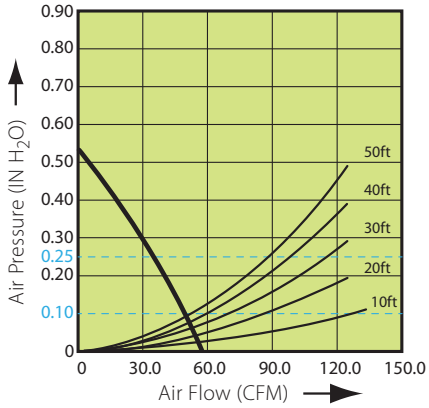
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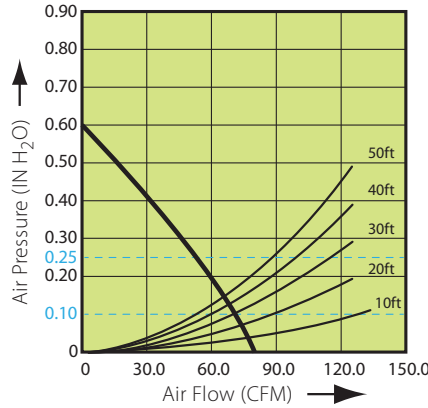
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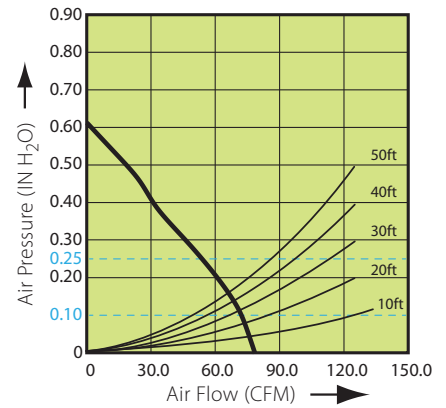
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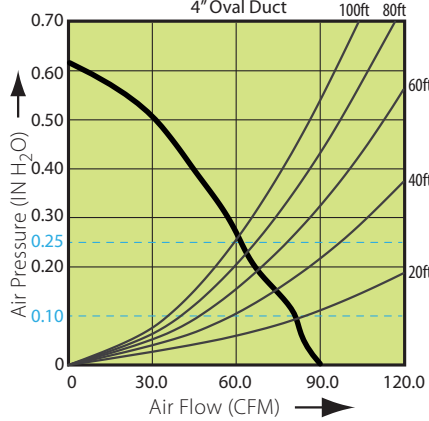
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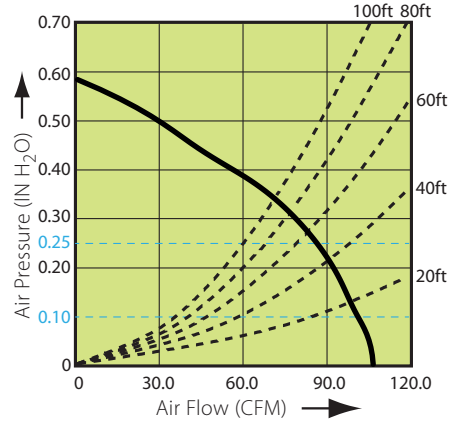
BreezRecessed Fan Curves

BreezPro Fan Curve

REC80LED Fan Curve
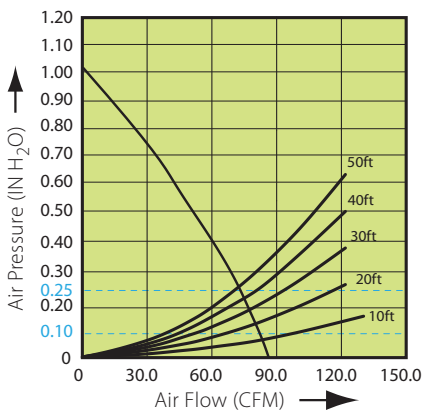
Pro200 Fan Curve
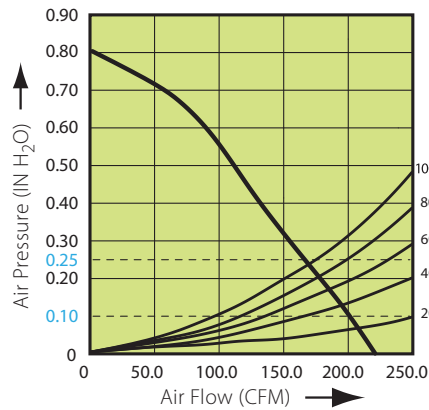
Pro300 Fan Curve

BreezIntegrity Fan Curves

ITG50 Fan Curve

ITG50LED Fan Curve

ITG70BT Fan Curve

ITG80 Fan Curve

ITG80H Fan Curve

ITG80LED Fan Curve

BreezRadiance Fan Curve

RAD80 Fan Curve
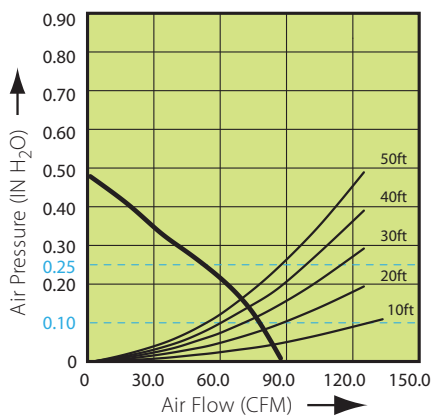
RAD80LED Fan Curve
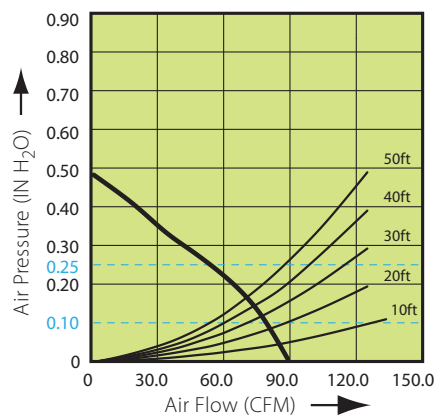
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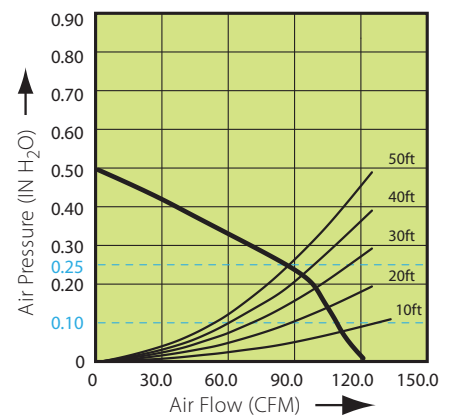
Which Fan is Most Suitable to Your Needs? The proof of Delta's commitment to green is

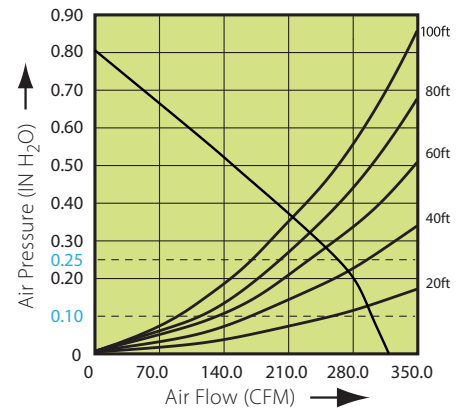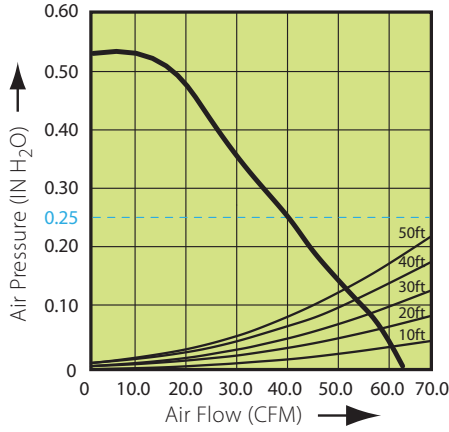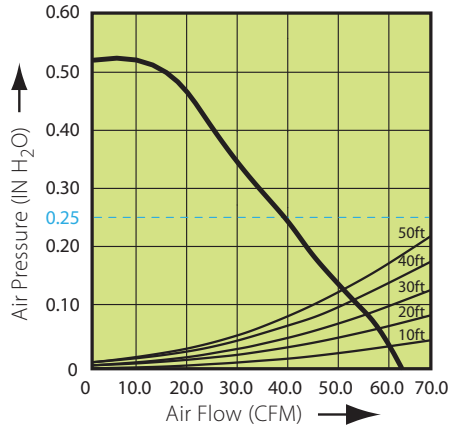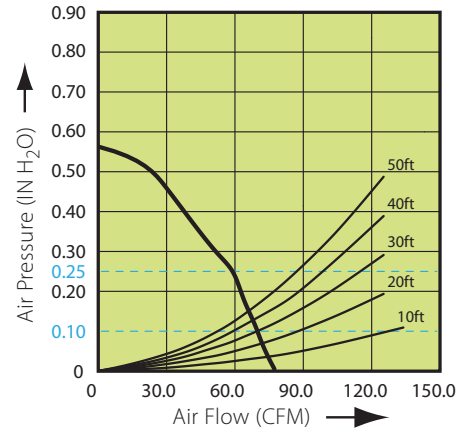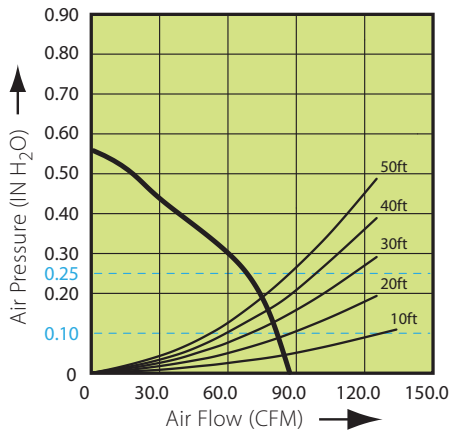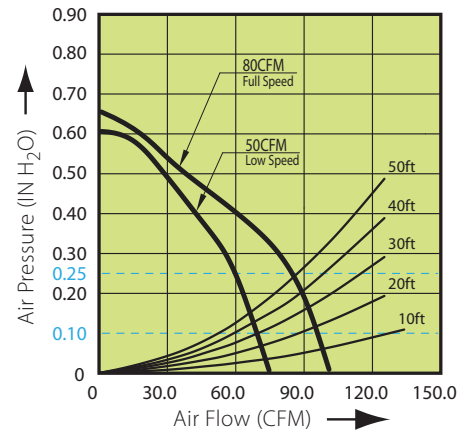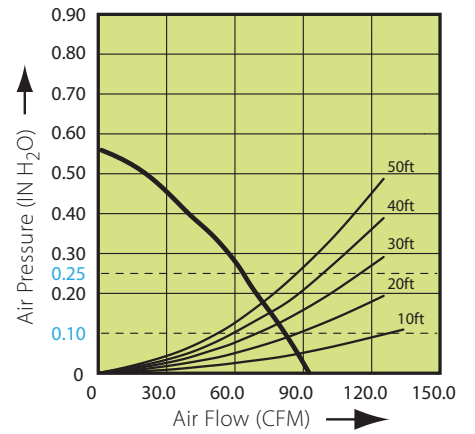|	Model #	Air Flow (CFM)	Duct Size	Description	Motor	
Signature	SIG80-110	80-110	6"	Single Speed		DC
	SIG80-110LED	80-110	6"	Fan/Dimmable LED Light/Night-Light	LED	DC
	SIG80-110D	80-110	6"	Fan with Dual Speed	dual speed	DC
	SIG80-110DLED	80-110	6"	Fan/Dimmable LED Light/Night-Light w/Dual Speed	LED, dual speed	DC
	SIG80-110H	80-110	6"	Fan with Humidity Sensor	humidity	DC
	SIG80-110HLED	80-110	6"	Fan/Dimmable LED Light/Night-Light w/ Humidity Sensor	LED, humidity	DC
	SIG80-110MH	80-110	6"	Fan with Motion & Humidity Dual Sensor	motion, humidity	DC
	SIG80-110MHLED	80-110	6"	Fan/ Dimmable LED Light Motion & Humidity Dual Sensor	LED, motion, humidity	DC
	SIG80	80	4"	Single Speed		DC
	SIG80D	80	4"	Fan with Dual Speed	dual speed	DC
	SIG110	110	4"	Single Speed		DC
	VFB25ADBT	110	4"	Fan with Bluetooth®	Bluetooth	DC
	VFB25ACH	80	4"	Fan with Humidity Sensor	humidity	DC
	VFB25ADH	110	4"	Fan with Humidity Sensor	humidity	DC
	VFB25AEH	130	4"	Fan with Humidity Sensor	humidity	DC
Smart	SMT130	130	6"	Single Speed		DC
	SMT130M	130	6"	Fan with Motion Sensor	motion	DC
	SMT130H	130	6"	Fan with Humidity Sensor	humidity	DC
	SMT150	150	6"	Single Speed		DC
	SMT150D	150	6"	Fan with Dual Speed	dual speed	DC
	SMT150LED	150	6"	Fan/LED Light	LED	DC
GreenBuilder	GBR80	80	4"	Single Speed		DC
	GBR80H	80	4"	Fan with Humidity Sensor	humidity	DC
	GBR80HLED	80	4"	Fan/Dimmable LED Light with Humidity Sensor	LED, humidity	DC
	GBR80LED	80	4"	Fan/Dimmable LED Light	LED	DC
	GBR80MHLED	80	4"	Fan/ Dimmable LED Light w/Humidity & Motion Sensor	LED, motion, humidity	DC
	GBR100	100	4"	Single Speed		DC
	GBR100H	100	4"	Fan with Humidity Sensor	humidity	DC
	GBR100HLED	100	4"	Fan/Dimmable LED Light with Humidity Sensor	LED, humidity	DC
	GBR100LED	100	4"	Fan/Dimmable LED Light	LED	DC
	GBR100LED-DECOR	100	4"	Fan/Dimmable LED Light Decor	LED	DC
Slim	SLM50	50	3"	Single Speed		DC
	SLM70	70	3"	Single Speed		DC
	SLM70H	70	3"	Fan with Humidity Sensor	humidity	DC
	SLM80	80	4" Oval	Single Speed		DC
	SLM100	100	4" Oval	Single Speed		DC
Integrity	ITG50	50	4"	Single Speed		DC
	ITG50LED	50	4"	Fan/Dimmable LED Light	LED	DC
	ITG70BT	70	4"	Fan with Bluetooth®	Bluetooth	DC
	ITG80	80	4"	Single Speed		DC
	ITG80H	80	4"	Fan with humidity Sensor	humidity	DC
	ITG80LED	80	4"	Fan/Dimmable LED Light	LED	DC
Recessed	REC80LED	80	4"	Fan/LED Light	LED	DC
Radiance	RAD80	80	4"	Fan with Heater	heater	DC
	RAD80LED	80	4"	Fan/LED Light with Heater	LED, heater	DC
	RAD110LED	110	4"	Fan/LED Light with Heater	LED, heater	DC
Professional	Pro200	200	6"	Single Speed		DC
	Pro300	300	6"	Single Speed		DC

LED Fan/LED Light   Fan/CFL Light   Adjustable motion sensor   Adjustable humidity sensor   Adjustable dual speed

in the energy-saving, cost efficient operation of the entire Breez product line.

Noise (Sones)	Energy Use (Watts)	Energy Efficiency (CFM/Watts)	Electric Bill[1]	ENERGY STAR	Most Efficient 2017 www.energystar.gov	ASHRAE 62.2 Intermittent	ASHRAE 62.2 Continuous
<0.3	8.2	15.3	$8.63	Y	Y	Y	Y
<0.3	9.7	12.7	$10.20	Y	Y	Y	Y
<0.3	8.2	15.3	$8.63	Y	Y	Y	Y
<0.3	9.7	12.7	$10.20	Y	Y	Y	Y
<0.3	8.2	15.3	$8.63	Y	Y	Y	Y
<0.3	9.7	12.7	$10.20	Y	Y	Y	Y
<0.3	8.2	15.3	$8.3	Y	Y	Y	Y
<0.3	9.7	12.7	$10.20	Y	Y	Y	Y
<0.3	8.7	9.7	$9.15	Y		Y	Y
<0.3	8.7	9.7	$9.15	Y		Y	Y
<0.3	13.6	9.0	$14.31	Y		Y	Y
1.0	14.2	7.7	$14.94	Y		Y	Y
<0.3	7.2	11.0	$7.57	Y	Y	Y	Y
1.0	14.2	7.7	$14.93	Y		Y	Y
2.0	22	6.7	$23.13	Y		Y	Y
<0.3	11.6	11.2	$12.10	Y	Y	Y	Y
<0.3	11.6	11.2	$12.10	Y	Y	Y	Y
<0.3	11.6	11.2	$12.10	Y	Y	Y	Y
<0.3	16.9	8.8	$17.63	Y		Y	Y
<0.3	16.9	8.8	$17.63	Y		Y	Y
0.5	17.6 (Fan Only)	8.5	$18.50	Y		Y	Y
0.8	10.5	7.6	$10.95	Y		Y	Y
0.8	9.7	8.2	$10.20	Y		Y	Y
0.8	11 (Fan only)	7.2	$11.57	Y		Y	Y
0.8	11 (Fan only)	7.2	$11.57	Y		Y	Y
0.8	11 (Fan only)	7.2	$11.57	Y		Y	Y
1.4	12.6	7.9	$13.15	Y		Y	
1.4	12.6	7.9	$13.15	Y		Y	
1.5	13.6 (Fan only)	7.3	$14.30	Y		Y	
1.5	13.6 (Fan only)	7.3	$14.31	Y		Y	
1.5	13 (Fan only)	7.6	$14.50	Y		Y	
1.0	6.4	11.6	$6.73	Y	Y		Y
2.0	13.2	5.8	$13.88	Y		Y	
2.0	13.2	5.8	$13.88	Y		Y	
0.6	8.5	9.4	$8.94	Y		Y	Y
1.0	14.5	6.8	$15.25	Y		Y	Y
0.7	5.0	12.5	$5.26	Y	Y		Y
0.7	5.0	12.5	$5.26	Y	Y		Y
1.0	8.4	10.6	$8.83	Y	Y	Y	Y
1.3	9.5	8.4	$9.98	Y		Y	
1.5	10.0	9.0	$10.51	Y		Y	
1.3	11.3	7.2	$11.88	Y		Y	
1.5	14.5 (Fan only)	5.9	$15.25	Y		Y	
1.5	10.5	7.6	$11.05			Y	Y
1.5	10.5	7.6	$11.05			Y	Y
0.7	12.0	11	$12.62			Y	Y
1.0	17.5	11.4	$18.39	Y	Y	Y	Y
2.0	41	7.3	$43.09	Y		Y	

Heater   Bluetooth®   1 Annual Energy Cost per Fan (24/7). Calculations based upon U.S. average retail electricity and HVI testing labs. Actual results may vary

The Right Fan for Any Ventilation Need

This quick guideline chart will help you match the correct bath fan size for your room size and type. HVI recommends the following intermittent ventilation rates for bathrooms:

Bathroom Size	Calculation Formula	Ventilation Rate Required
Less than 100 sqft	1 CFM per sq ft of floor area	A minimum of 50 CFM
More than 100 sqft	Add the CFM requirement for each fixture	Toilet 50 CFM Shower 50 CFM Bathtub 50 CFM Jetted Tub 100 CFM

Reference: www.hvi.org/publications/HowMuchVent.cfm

Equivalent Duct Lengths

This chart shows Equivalent Duct Lengths (EDL) for BreezSignature, BreezSlim, BreezGreenBuilder, BreezSmart, BreezRadiance, BreezProfessional, BreezIntegrity, and BreezRecessed models by CFM (airflow) output for duct lengths from 40ft to 100ft.

	Breez Models	Mode(s)	Duct Size	40ft	60ft	80ft	100ft
Signature	SIG80-110 (80-110 CFM)	Single Speed	6"	110 CFM	110 CFM	110 CFM	110 CFM
	SIG80-110LED (80-110 CFM)	Fan/ Dimmable LED Light/Night-Light	6"	110 CFM	110 CFM	110 CFM	110 CFM
	SIG80-110D (80-110 CFM)	Fan with Dual Speed	6"	110 CFM	110 CFM	110 CFM	110 CFM
	SIG80-110DLED (80-110 CFM)	Fan/ Dimmable LED Light/Night-Light with Dual Speed	6"	110 CFM	110 CFM	110 CFM	110 CFM
	SIG80-110H (80-110 CFM)	Fan with Humidity Sensor	6"	110 CFM	110 CFM	110 CFM	110 CFM
	SIG80-110HLED (80-110 CFM)	Fan/LED Light/Night-Light w/ Humidity Sensor	6"	110 CFM	110 CFM	110 CFM	110 CFM
	SIG80-110MH (80-110 CFM)	Fan with Motion & Humidity Dual Sensor	6"	110 CFM	110 CFM	110 CFM	110 CFM
	SIG80-110MHLED (80-110 CFM)	Fan/LED Light/Night-Light w/ Motion & Humidity Dual Sensor	6"	110 CFM	110 CFM	110 CFM	110 CFM
	SIG80 (80 CFM)	Single Speed	4"	70 CFM	70 CFM	60 CFM	60 CFM
	SIG80D (80 CFM)	Fan with Dual Speed	4"	70 CFM	70 CFM	60 CFM	60 CFM
	SIG110 (110 CFM)	Single Speed	4"	90 CFM	90 CFM	80 CFM	80 CFM
	VFB25ADBT (110 CFM)	Fan with Bluetooth®	4"	90 CFM	80 CFM	70 CFM	70 CFM
	VFB25ACH (80 CFM)	Fan with Humidity Sensor	4"	70 CFM	70 CFM	60 CFM	50 CFM
	VFB25ADH (110 CFM)	Fan with Humidity Sensor	4"	90 CFM	80 CFM	70 CFM	70 CFM
	VFB25AEH (130 CFM)	Fan with Humidity Sensor	4"	100 CFM	90 CFM	90 CFM	80 CFM
Smart	SMT130 (130 CFM)	Single Speed	6"	130 CFM	130 CFM	120 CFM	120 CFM
	SMT130H (130 CFM)	Multi-Speed with Humidity Sensor	6"	130 CFM	130 CFM	120 CFM	120 CFM
	SMT130M (130 CFM)	Multi-Speed with Motion Sensor	6"	130 CFM	130 CFM	120 CFM	120 CFM
	SMT150 (150 CFM)	Single Speed	6"	150 CFM	150 CFM	140 CFM	140 CFM
	SMT150D (150 CFM)	Dual Speed	6"	150 CFM	150 CFM	140 CFM	140 CFM
	SMT150LED (150 CFM)	Fan/LED Light	6"	150 CFM	150 CFM	150 CFM	150 CFM
GreenBuilder	GBR80 (80 CFM)	Single Speed	4"	70 CFM	70 CFM	60 CFM	60 CFM
	GBR80H (80 CFM)	Fan with Humidity Sensor	4"	70 CFM	70 CFM	60 CFM	60 CFM
	GBR80HLED (80 CFM)	Fan/Dimmable LED Light w/ Humidity Sensor	4"	70 CFM	70 CFM	60 CFM	60 CFM
	GBR80LED (80 CFM)	Fan/Dimmable LED Light	4"	70 CFM	70 CFM	60 CFM	60 CFM
	GBR80MHLED (80 CFM)	Fan/Dimmable LED Light with Humidity & Motion Sensor	4"	70 CFM	70 CFM	60 CFM	60 CFM
	GBR100 (100 CFM)	Single Speed	4"	80 CFM	70 CFM	70 CFM	60 CFM
	GBR100H (100 CFM)	Fan with Humidity Sensor	4"	80 CFM	70 CFM	70 CFM	60 CFM
	GBR100HLED (100 CFM)	Fan/Dimmable LED Light w/Humidity Sensor	4"	80 CFM	70 CFM	70 CFM	60 CFM
	GBR100LED (100 CFM)	Fan/ Dimmable LED Light	4"	80 CFM	70 CFM	70 CFM	60 CFM
	GBR100LED-DECOR (100 CFM)	Fan/ Dimmable LED Light Decor	4"	80 CFM	70 CFM	60 CFM	60 CFM
Slim	SLM50 (50 CFM)	Single Speed	3"	40 CFM	30 CFM	30 CFM	30 CFM
	SLM70 (70 CFM)	Single Speed	3"	50 CFM	40 CFM	30 CFM	30 CFM
	SLM70H (70 CFM)	Fan with Humidity Sensor	3"	50 CFM	40 CFM	30 CFM	30 CFM
	SLM80 (80 CFM)	Single Speed	3"	50 CFM	40 CFM	40 CFM	30 CFM
	SLM80 (80 CFM)	Single Speed	4"	70 CFM	60 CFM	60 CFM	60 CFM
	SLM100 (100 CFM)	Single Speed	4"	90 CFM	80 CFM	70 CFM	70 CFM
Integrity	ITG50 (50 CFM)	Single Speed	4"	50 CFM	40 CFM	40 CFM	40 CFM
	ITG50LED (50 CFM)	Fan/LED Light	4"	50 CFM	40 CFM	40 CFM	40 CFM
	ITG70BT (70 CFM)	Fan with Bluetooth®	4"	60 CFM	60 CFM	50 CFM	50 CFM
	ITG80 (80 CFM)	Single Speed	4"	70 CFM	70 CFM	60 CFM	60 CFM
	ITG80H (80 CFM)	Fan with Humidity Sensor	4"	70 CFM	70 CFM	60 CFM	60 CFM
	ITG80LED (80 CFM)	Fan/LED Light	4"	70 CFM	70 CFM	60 CFM	60 CFM
Recessed	REC80LED (80 CFM)	Fan/LED Light	4"	70 CFM	70 CFM	60 CFM	60 CFM
Radiance	RAD80 (80 CFM)	Fan with Heater	4"	70 CFM	60 CFM	60 CFM	50 CFM
	RAD80LED (80 CFM)	Fan/LED Light with Heater	4"	70 CFM	60 CFM	60 CFM	50 CFM
	RAD110LED (110 CFM)	Fan/LED Light with Heater	4"	90 CFM	80 CFM	70 CFM	70 CFM
Professional	Pro200 (200 CFM)	Single Speed	4"	190 CFM	180 CFM	170 CFM	170 CFM
	Pro300 (300 CFM)	Single Speed	4"	270 CFM	250 CFM	230 CFM	210 CFM

Frequently Asked Questions

Who is Delta Group?

Delta Group is the world's largest manufacturer of brushless DC motor fans and a leading provider of switching power supplies – a $7.5 billion global company with 38 manufacturing facilities, 60 R&D Centers and 153 Sales Offices worldwide and U.S. headquarters in Fremont, CA. Our company mission is "To provide innovative, clean and energy-efficient solutions for a better tomorrow" supported by a product portfolio that features a range of energy efficiency solutions including ventilation fans, small wind energy systems, solar panels, LED lighting, EV chargers, Industrial Automation products and Display Solution products. Delta's operations are ISO-9001, ISO-14001, ISO-14064, OHSAS-18001 and TS-16949 certified. Delta brushless DC motor fans are used in applications where precision is paramount. This includes consumer electronics products such as laptops, desktops, tablets and gaming systems from leading manufacturers.

Please visit our global website **www.deltaww.com** for a more comprehensive look at Delta operations, products and capabilities

Why is a brushless DC motor better than an AC motor? Does it require any special installation or wiring?

Delta brushless DC motor exhaust fans use are engineered to run 70% longer and consume 74% less power than AC motor exhaust fans, which reduces replacement costs and saves on utility bills. No mechanical brushing means more quiet operation and less wear on motor components. Delta Breez fans have been tested to run continuously for a minimum 70,000 hours.

No special wiring is needed; there is a transformer built into the fan that automatically switches the power supply from AC to DC.

Delta's DC Breez ventilation fans are installed just like any AC motor fans.

What is Soft Start Function?

In the first 10 seconds the fan is powered on, the motor will softly and quickly ramp up to full speed. This is unlike an AC Motor, which simply jump-starts the fan. This quiet 'soft start' process helps reduce the wear on motor bearings to prolong fan life.

What is Lock Protection Function?

This unique function allows all Delta Breez ventilation fans to automatically power off when the impeller is locked abnormally. For example: when a buildup of dirt and dust accumulates in the fan. The fan will attempt to restart itself in 5-10 seconds. If the impeller is still blocked, the fan will remain off. This helps avoid the issue of over-heating or motor burnout, and helps to prevent potential fire risks.

What is the purpose of the LED indicator light underneath the fan grille?

The light indicates to the user that the quiet fan is operating. If the fan has different functions available i.e. humidity sensing, low speed, motion sensing, the light will change color indicating what mode the fan is in. The light will blink if the impeller gets obstructed, telling the user that the fan is not operating properly.

What are CFM and Sones?

CFM and Sones are how bath fans are generally compared CFM (Cubic Feet per Minute) is speed of 'air flow' – the amount of air extracted per minute when the fan is running. The amount of CFM needed is generally related to the size of the area ventilated. Please see the sizing guidelines.

Sone level is how loud the fan is to the human ear. Doubling the sone value means doubling the noise. The average 80 CFM bath fan runs at 0.8~2.5 Sones. Delta Breez 80 CFM fans run as low as <0.3 Sones. At less than 0.3 Sones, the fan is virtually silent. This is the lowest noise rating of any exhaust fan available in the market. For reference, 1.0 Sone is about as loud as a new computer or refrigerator.

For more information, visit http://www.hvi.org/videos/

How do I determine which bath fan I need – features and size?

Bathroom Ventilation

The following are Home Ventilating Institute (HVI) guidelines for ventilating both large and smaller bathrooms using intermittent or continuous ventilation.

Small rooms:

For bathrooms up to 100 square feet in area, HVI recommends that an exhaust fan provide 1 CFM per square foot (approximately eight air changes per hour) to properly ventilate the bathroom.

Example:

- Bathroom is 8′ x 5′ (with 8′ ceilings)
  Multiply 8 x 5 = 40 ft.
- Bathroom area is 40 ft.
- At 1 CFM per square foot the minimum recommendation is a fan rated at 40 CFM

Larger rooms:

For bathrooms above 100 square feet in area, HVI recommends a ventilation rate based on the number and type of fixtures present, according to the following table:

Toilet	50 CFM
Shower	50 CFM
Bath Tub	50 CFM
Jetted Tub	100 CFM

Note: Enclosed toilet rooms must have an operable window or a fan for ventilation

Example:

The bathroom is 20′ x 12′. There is a tub (without jets), a shower enclosure and an enclosed toilet.

Each fixture requires 50 CFM:

Tub	50 CFM
Shower	50 CFM
Toilet	50 CFM
Total	150 CFM

Data source: http://www.hvi.org/publications/bathroom_ventilation.cfm

Or you can visit http://www.hvi.org/videos/

How does the Humidity Sensor function operate?

The fan runs at full speed until the user-adjustable humidity set-point is achieved, then automatically switches to the user set low speed for continuous run or off. The amber or blue color of LED indicator light underneath the grille indicates humidity sensing mode or continuous low speed mode. Please consult the Installation & Operating Instruction manual for a particular fan model for more specific information.

How does the Motion Sensor function operate?

When motion is detected, fan comes on at full speed. When user leaves the room, the fan will remain running at full speed until user-preset delay time has passed. Then the fan will automatically drop down to the pre-set low speed for continuous run or off. The green or amber color of LED indicator light underneath the grille indicates continuous low speed or full speed mode. Please consult the Installation and Operating Instruction manual for a particular fan model for more specific information.

Can I keep the housing of my old fan (non Delta fan) and just replace the fan motor with Breez?

No. For proper performance, it is recommended that Delta Breez fan motors be used only with Delta Breez fan housing.

Can I use a timer with the Delta Breez fan?

Many Delta Breez models have built-in adjustable delay timers, so no external timer is needed. External timers can be used in conjunction with single-speed models only. Because Breez fans run on much lower wattage than other market ventilation fans, please contact Delta Breez customer service for a list of single-speed models and consult with a licensed electrician for compatibility.

Do you sell switches or timers?

No. Delta does not manufacture switches or timers but these components are readily available in most major home improvement retailers or through your local contractor or supplier.

Can the Delta Breez Fan/Light be installed with insulation around it?

Yes. All Delta Breez fans are UL approved. Here is UL's testing protocol:

For Fan/lights, UL requires 8.5 inches of insulation on all sides (including top) of the product. Insulation shall be of the loose fill type and should have a thermal resistance per inch between 3.75-3.85 R (declared by the manufacturer) when conditioned to a density of 32.04 - 40.05 kg/m3. This scenario is equivalent to an approximate R value of R32. R40 is the max for Canadian installations.

For a fan only, there is no insulation limitation for fan without lighting except in Canada where the max value is R40.

Can Delta fans be controlled by a voltage switch (RPM control)?

No.

What are the built-in control functions and how do they work?

Motion Sensing

Green and amber LED indicator lights will show continuous low speed and full speed modes. The fan will run continuously at a user-preset lower level of CFM. When motion is detected, fan will automatically change to full speed. When user leaves the room, the fan will remain running at full speed until user-preset delay time has passed; delay timer has adjustable preset positions of 0, 0.5, 5, 15, 30, 45 and 60 minutes. Fan will automatically drop down to low speed after the pre-set time has elapse.

Humidity Sensing

Blue and amber LED indicator lights to show humidity control and full speed modes. The fan will operate in full speed mode or humidity control mode by manual on and off switch. The adjustable humidity set points are from 50% to 90%. When in humidity control mode, and the humidity is above the user-adjustable set-point, fan will run at full speed. When the humidity is below the set-point, the fan runs continuously at a user-preset lower level of CFM.

Can Delta fans be installed in a slanted ceiling?

No. Installation of any Delta fan in a slanted ceiling is not recommended.

Is it OK to exhaust into the attic?

No. The American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) recommends exhausting only to the exterior of the home.

Can Delta fans be installed in a side wall?

All Delta BreezSlim models; BreezGreenBuilder fan only and fan with humidity sensor models; BreezIntegrity fan only and fan with humidity sensor models are UL listed for both ceiling and wall-mount installation.

Can I install the Exhaust Fan / Light in the shower or tub enclosure?

Yes. All Delta Breez Ventilation Fans except BreezRadiance due to the heating element are UL listed for use over the bathtub or shower when installed in a GFCI protected branch circuit.

How long do LEDs last?

LEDs have a rated life of up to 30,000 hours. Used 12 hours a day, a 30,000 bulb will last more than 6 years. Used 8 hours a day, it will last more than 10 years!

Are Delta Breez fans ENERGY STAR qualified?

Yes. Most Delta Breez fans are ENERGY STAR qualified. The only exception is BreezRadiance series, which contain a powerful 1300 or 1500 Watts heating element for warmth and comfort.

Are Delta Breez fans ASHRAE 62.2-2010 compliant?

Yes. All Delta Breez fans are 62.2-2010 compliant for intermittent running. Most of the Delta Breez fan models are compliant for continuous running. Please see www.deltabreez.com, Learning Center for a complete listing.

Are Delta Breez fans UL listed and HVI certified?

Yes. All Delta Breez fans are UL listed and are HVI certified.

Do Delta Breez fans meet Title 24 requirements?

Yes. All Delta Breez fans meet current Title 24 requirements.

What is the Delta Breez Ventilation Fan Warranty?

All Delta Breez Ventilation Fans have a 3-Year limited warranty.

How do I reach technical and customer service?

Technical support: 888-979-9889
Email: BreezTechSupport@deltaww.com

Customer sales support: 877-685-4384
Email: BreezSalesSupport@deltaww.com

Fax: 510-226-5098

breez
Ventilation System

Learn more about the Breez Ventilation Fans, the ideal bathroom solution for green construction at:

www.deltabreez.com

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