

Builders Seek Whole-House Ventilation Systems

MODELING SHOWS THAT PANASONIC'S HIGH-PERFORMANCE SELECTCYCLER™ SYSTEM OFFERS THE LOWEST COST-PER-HERS POINT

Whole-house mechanical ventilation is on the rise. Since 2008, single-family detached homes with whole-house ventilation systems have grown from 9 percent to 27 percent of all new home construction, according to the 2015 Annual Builder Practices Survey conducted by Home Innovation Research Labs. Due to states adoption of the 2012 International Building Code, more homes will be requiring mechanical ventilation, which will help alleviate moisture issues and maintain healthy indoor environmental quality for home owners.

Builders nationwide are seeking to lower their homes' HERS scores to meet ASHRAE 62.2 and ENERGY STAR® Certified Home 3.0 ventilation requirements. One of the standard whole-house ventilation strategies is an exhaust-only bath fan; other solutions are supply-only and balanced strategies.

"While exhaust-only is the prevalent strategy across the country, it's not the best strategy in some climate zones," says Ted Cater, Product Development Manager for Panasonic Eco Solutions.

"In commercial projects engineers understand the need to remove humidity from the building or to keep it out," Cater says. "The residential building community is beginning to understand the benefits of removing moisture in homes, especially in places like Miami or Atlanta. We really do not want water penetrating the walls. When water gets into interstitial space, it condenses and you can get mold and mildew.

Also, in humid areas, if we can remove moisture from the air it makes homeowners much more comfortable, even if the thermostat is set relatively high."

HIGH PERFORMANCE AND LOW COST

HERS modeling of Panasonic's new SelectCycler™ whole-house ventilation system shows that it offers the lowest cost-per-HERS point for supply-only or balanced strategies in all seven U.S. climate zones (not including labor costs). The modeling was conducted by third-party RESNET provider NRGLogic, an energy-efficiency services firm, and EPX, a nationwide consortium of the highest-performing HERS organizations that serve their regions production and custom built-community.

EPX/NRGLOGIC'S FINDINGS

SelectCycler™ supply-only strategy compared to the Aprilaire® whole-house 8216A Ventilation Control System

Location	SelectCycler™		Aprilaire®	
	HERS Score	Cost-per-HERS	HERS Score	Cost-per-HERS
Miami	69	\$81	74	\$275
International Falls, Minn.	61	\$81	64	\$275

SelectCycler™ balanced strategy compared to the Broan® ERV100HC whole-house system

Location	SelectCycler™		Broan®	
	HERS Score	Cost-per-HERS	HERS Score	Cost-per-HERS
San Antonio	60	\$325	57	\$667
New York	65	\$325	62	\$667

HOW SELECTCYCLER™ WORKS

The SelectCycler™ System includes an AirCycler® controller, a supply damper, FanConnect™ fan/light switch, WhisperGreen Select™ bath fans, and your preferred HVAC/AHU equipment (not included).

The system features two modes—hybrid and balanced. In the hybrid mode, the supply damper is opened to bring in fresh air. If heating or cooling cycles don't run long enough to meet the required ventilation, the controller powers on the WhisperGreen Select™ fan via the FanConnect™ Wall Switch to provide supplemental exhaust ventilation.

In balanced mode, the controller opens the supply damper and activates the WhisperGreen Select™ fan providing simultaneous exhaust and supply ventilation. If heating or cooling is too short to meet the home's ventilation needs, the controller opens the supply damper and activates the exhaust fan.

SelectCycler™ offers the lowest energy penalty to the HERS Index because it employs very low-energy WhisperGreen Select™ fans. For more information about how the SelectCycler™ system can help lower your cost-per-HERS points, visit us.panasonic.com/ventfans. ●

FOR MORE INFORMATION

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