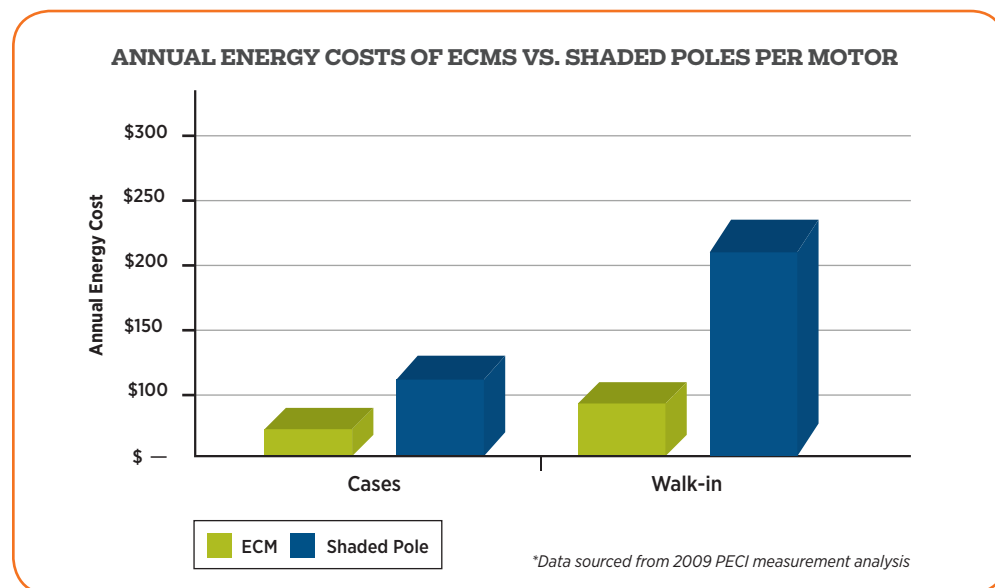


ECMS: KEEP COOL WHILE CUTTING YOUR OPERATING COSTS

SOLUTION FOR GROCERS

Supermarkets and grocery stores expend a tremendous amount of energy per square foot. Refrigerated display cases and walk-in coolers and freezers account for a large share of energy usage. In a standard setup, these cases and walk-ins are equipped with shaded pole motors that drive evaporator fans. Shaded pole motors were once the sensible option for this task, but are highly inefficient relative to other motor types available today. By replacing standard shaded pole motors with electronically commutated motors (ECMs), you can save more than \$66 per case motor and more than \$131 per walk-in motor in energy costs every year (see chart below). That's a smart switch.



Energy savings are estimates only. They are based on an average \$0.13/kWh energy cost in PG&E territory.

For more information, contact EnergySmart Grocer at **1.866.961.6153** or visit us online at **www.energysmartgrocer.org**.





WHY MAKE THE MOVE TO ECMS?

Fractional horsepower shaded pole motors in cases and walk-ins only offer an energy-efficiency rate of about 20 to 25 percent, which means they require a lot of energy to keep your product cool and they produce a significant amount of waste heat in the process. This waste heat has to be removed or cooled down again by your refrigeration and air conditioning system, further increasing your energy bill.

ECMs, on the other hand, deliver efficiency rates of more than 60 percent, so they consume significantly less energy and produce minimal waste heat compared to shaded pole motors. They're also more efficient than permanent split capacitor (PSC) motors, the intermediate option.

What makes ECMs so efficient?

An ECM is a brushless direct current (DC) motor that features a permanent magnetic rotor and built-in electronic rectifier to convert the AC electricity from the wall to the required DC. Brushless DC motors are

fundamentally different than shaded pole motors, and are designed for long-life while eliminating many of the inefficiencies inherent to shaded pole motors. Extra features on certain ECMs, such as speed programmability and 2-speed operation, can enable additional energy-saving opportunities.

Add up all these factors and it's quite simple. By using ECMs, your product stays cool and you significantly reduce your operating costs. Need more reasons to make the switch?

Consider these points:

- Because of their efficiency, ECMs are quickly becoming the new industry standard
- ECM designs are durable, ultra-quiet and moisture-resistant
- Through rebates from EnergySmart Grocer and coupled with energy savings, ECMs can pay for themselves in one to two years

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