



Introducing the Highest Efficiency Electric Fan Motors:

## Q-Sync® 38-50W Permanent Magnet Synchronous Motors (60 Hz)

Ground-breaking technology that returns money to your bottom line.

- Q-Sync® PMSM technology saves up to **\$330 per year** per motor in energy costs
- Realize **immediate savings** when you replace competitor motors with Q-Sync® motors
- Gain increased reliability and peace of mind with a longer design life and a **2-year warranty**

### Save More

Q-Sync® motors reduce your energy cost.

#### Annual Energy Cost Savings per Motor from using Q-Sync® PMSM Technology

Energy Costs	Q-Sync® vs. Shaded Pole	Q-Sync® vs. PSC	Q-Sync® vs. ECM
\$0.20 / kWh	\$339.06	\$125.58	\$43.47
\$0.15 / kWh	\$254.29	\$94.18	\$32.60
\$0.10 / kWh	\$169.53	\$62.79	\$21.73

#### Comparison of 50W Motor Efficiencies

Q-Sync®  
85%+ Efficient

ECM

65% Efficient

PSC

45% Efficient

Shaded Pole

25% Efficient

## Q-Sync® Advantages

- ✓ Water resistant housing for carefree cleaning (IP65 Certified)
- ✓ Constant airflow and constant power maintain desired set temperatures
- ✓ Less heat generated reduces the load on the refrigeration system
- ✓ Quieter motors enhance customer experience



# Q-Sync® Refrigeration Fan Motor Applications

## 38-50W fan motors for:

- Walk-in Food Coolers
- External Rack Units
- Gas Evacuation Systems
- Radon Mitigation Systems



Walk-in Food Coolers



Gas Evacuation Systems



External Rack Units



Radon Mitigation Systems

## Q-Sync® Product Features

### More Energy Efficient

- ✓ 70-80% fewer watts consumed compared to shaded-pole motors
- ✓ 20-40% fewer watts consumed compared to ECM motors
- ✓ Up to 50% less energy at the meter and 80% less at the grid
- ✓ Less heat generated by the motor, reducing thermal stress on the refrigeration system

### Longer Life and Higher Reliability

- ✓ Innovative and patented design results in 99% less duty cycle on electronics and increased surge protection
- ✓ Engineered to eliminate a start-stop capacitor which is a common failure point in other motors
- ✓ Lower in-rush current and better surge protection (up to 6000V)
- ✓ IP65 Certified (water and dust resistant)
- ✓ Built with extended life bearings
- ✓ Design life is 10+ years

### Easier to Install

- ✓ A 16" cord with straight Lyall plug is standard
- ✓ Standard front and rear mounting options



**Q-Sync® is recognized by the US Department of Energy as a High Impact Technology For Commercial Refrigeration**



## How Q-Sync® Patented PMSM Technology Works

QM Power's innovative design is the biggest breakthrough in motor technology in more than 50 years. Q-Sync® circuitry **eliminates the need for electronic commutation to keep the motor spinning.**

By operating the motor at the same frequency as the AC power line and **eliminating the AC to DC power conversions** from its circuit (no AC-to-DC rectifier, no DC link, and no DC-to-AC inverter), **Q-Sync® delivers unparalleled energy savings.**