

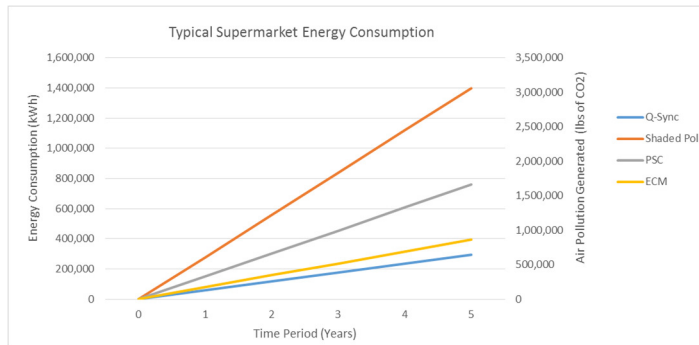
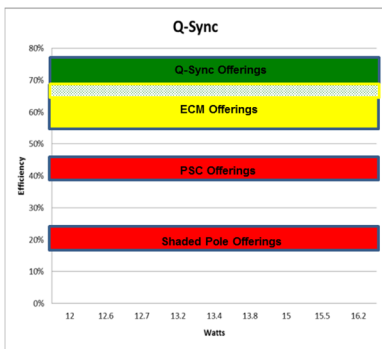
Summary for Public Release

**Commercial Building Technology Demonstrations
High Efficiency Motors for Commercial Refrigeration Applications**

Project Participants: QM Power is teaming with the Department of Energy (DOE), Oak Ridge National Labs and a broad group of market leading OEMs, supermarkets, retrofit contractors and utilities to install and demonstrate over 10,000 higher efficiency fan assemblies in over 50 sites throughout the US.

[Additional partnership opportunities available.](#)

The Q-Sync technology uses a permanent magnet synchronous motor topology and a simple, patented low cost switching method to achieve a higher efficiency than any other commercial refrigeration fan motor currently on the market. Q-Sync is nearly 3 times more efficient than shaded pole, and inherently much more efficient than other induction, PSC or ECM/BLDC state-of-the-art motor offerings.

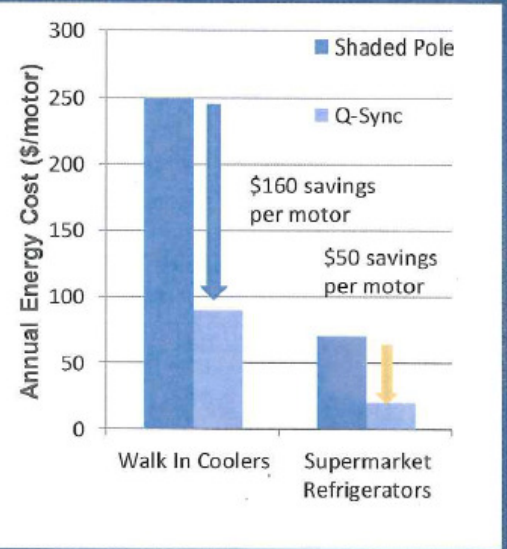


This project is targeting open display cases, doored cases, bottle coolers, vending machines, ice freezers and other commercial refrigeration applications. The Q-Sync technology also has numerous HVAC and other market applications in addition to commercial refrigeration. If the specifications on the back of this flyer might be suitable for use in your application, please inquire about your ability to participate in this demonstration program. When fully commercialized and adopted, Q-Sync has the potential to achieve over 0.6 quads and over \$1 billion of energy savings in building applications.

Immediate Commercial Partnering Opportunities

Features:

- Achieve DOE minimum efficiency with drop-in replacements
- Achieve Energy Star with highest efficiency systems
- New class of higher efficiency motors, surpassing Electrically Controlled Motor (ECM) drive efficiencies by 10-30%+
- 50%+ better Power Factor (PF) combined with higher efficiency results in about 1/2 the current draw of a typical ECM
- Achieve higher efficiency and PF without a cost premium over ECM solutions
- Long life Bearings
- Moisture resistance enclosure helps eliminate wash down failures
- Intrinsically higher reliability leads to longest warranty in market



12 Watt Q-Sync Motor Specifications

QM Power Model QSM16

Motor Type: Synchronous – Electronic Start

Recommended For: 9-12 Watt Applications

Rear & Front Mounting (Euro Style)

Cord: 14" – Low Temp. (-32° to 55°C)

Plug: Bare Wire or 2 Pin Plug

UL Approved

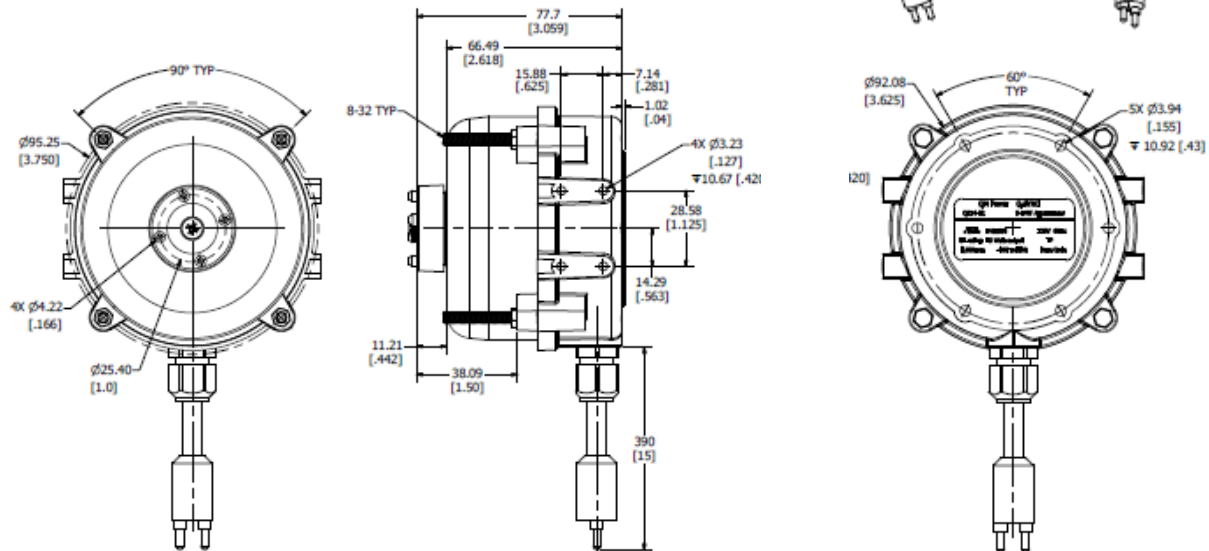
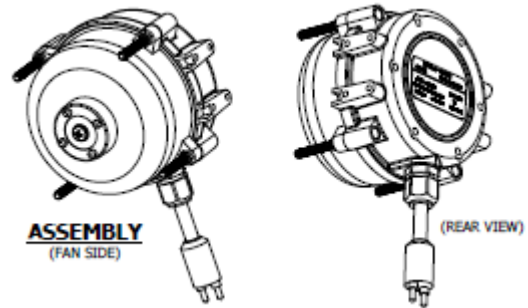
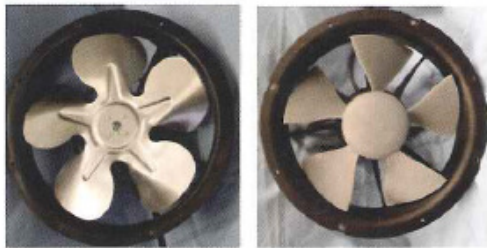
115V/60Hz

1800 rpm, CW

IP 65



Using Q-Sync instead of ECM solutions is the equivalent of taking almost one of every two motors off the grid. Using Q-Sync instead of shaded pole solutions is the equivalent of taking five of every six motors off the grid. Additional products under development include 4-6W, 25-75W, ¼ to 1hp fan motors and advanced fan blades.



For more information, please contact QM Power at (816) 246-4200 or info@qmpower.com.