

# THE MOST EFFICIENT COMMERCIAL REFRIGERATION MOTOR IN HISTORY

INTRODUCING THE NEXT BIG LEAP IN EFFICIENCY

## EFFICIENT DESIGN

QM Power develops and manufactures high-efficiency electric motor technology that shatters industry standards for energy consumption by up to 80%.

The company's innovative, patented Q-Sync Permanent Magnet Synchronous motor sets a new standard in fan motor performance, reliability and cost, and has been thoroughly tested and validated by the Department of Energy and Oak Ridge National Laboratory.

Headquartered in Kansas City, MO, QM Power Inc.'s UL approved Q-Sync motors are designed to offer greater efficiency and reliability than conventional Electronically Commutated Motors (ECMs) at a comparable upfront cost.

## SMART SYNCHRONOUS

QM Power's breakthrough is the biggest innovation in motor technology in more than 50 years. The Q-Sync motor's innovative design eliminates the need for electronic commutation to keep the motor spinning after reaching synchronous speed.

**Q-Sync™** The Q-Sync motor uses a simpler, smarter controller with streamlined electronics that quickly get the motor to its targeted speed, and then efficiently shifts the circuit to operate the motor at the same frequency as the AC power line. By eliminating AC to DC power conversions from its circuit, it saves more energy than all competing motors.

**Q-Sync is recognized by the Department of Energy as a "High Impact Technology" for commercial refrigeration**

MORE EFFICIENT

MORE RELIABLE

MORE COMPATIBLE

## ABOUT US

QM Power, Inc. was founded in 2006 to capitalize on proprietary and patented advances in magnetic circuits and electronic controllers for the global electric motor, generator and actuator markets.

QM Power is a fast-growing electric motor manufacturer with state of the art research and development laboratories, a machine shop, NIST calibrated test equipment, design capabilities, electromagnetic, thermal stress and other analytical software, full prototyping and 3-D printing capabilities, and blue chip channel and fabrication partners.

## HIGHER EFFICIENCY

QM Power Inc.'s UL approved Q-Sync motors are designed to offer far greater efficiency and reliability for commercial refrigeration applications than Electronically Commutated Motors (ECMs), Permanent Split Capacitor (PSC) and Shaded Pole Motors.

Q-Sync improves the efficiency, power quality and reliability of fan motors through its breakthrough technologies that can substantially improve performance and reduce the total cost of ownership. Customers and their service partners can get a more efficient product at a comparable cost to ECMs.

## Q-SYNC BENEFITS

- 20-40% Less Watts vs. ECMs
- 70-80% Less Watts vs. Shaded Pole
- 50% Better Power Factor
- Over 50% Less Amps Than Other Motors
- Universal Mounts on Basket and Motor
- Drop-In Replacement for OEM & End-Users
- Better Surge Protection
- Lower In-Rush Current
- 99% Less Duty Cycle on Electronics
- Higher Reliability
- Longer Life
- UL Approved
- Quieter



### WELCOME TO THE FUTURE OF MOTORS

Q-Sync motor technology is a giant leap forward in motor design. It was designed to be the highest efficiency motor ever built, using up to 40% less watts than electrically commutated motors (ECM), and up to 80% less than shaded-pole motors, while providing consistent power output and airflow in any application.

Every Q-Sync motor installed is the equivalent of taking up to four out of every five motors off the grid.

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#### SMART. SYNCHRONOUS. EFFICIENT.

- Unique design uses AC without the need for power conversions to DC
- Exceeds the industry standard in fan motor performance and efficiency
- Enables businesses to reduce energy costs to record-low levels
- The best motor to meet increases in future DOE efficiency standards

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#### PREMIUM MOTORS WITHOUT THE PREMIUM PRICE

- Q-Sync motors reduce refrigeration load more than any other motor
- 99% lower duty cycle on the electronics and less startup in-rush current
- Get a premium product with better long-term reliability at prices comparable or better than ECMs

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#### THE MOST UNIVERSAL ENERGY EFFICIENT MOTOR

- Up to 40% less watts than EC motors, and up to 80% less than shaded-pole
- Consistent power output and airflow for nearly any application
- Features a universal mount that adapts to virtually all equipment without the need to retrofit existing configurations

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#### BUILT TO LAST

- Built to an IP65 rating to reduce moisture and dust related failures
- Superior reliability and long service life with 2-year warranty offered
- Built-in surge protection directs energy at field coils before electronics
- Quiet operation

#### The Best Warranty

Industry leading warranty offered on Q-Sync motors



#### Save More

Q-Sync motors reduce your energy cost more than any other refrigeration fan motor

#### Annual Energy Cost Savings Per Motor from using Q-Sync Motors

	Q-Sync vs. ECM	Q-Sync vs. PSC	Q-Sync vs. Shaded Pole
4-8 Watt	\$4.83	\$10.93	\$34.77
6-12 Watt	\$8.15	\$23.45	\$57.23
38-50 Watt	\$18.67	\$84.11	\$218.47

\*Assumes \$0.1094 cents/kWh

Interested in learning more about QM Power?

Contact us at (816) 246-4200 or visit us on the web at [www.qmpower.com](http://www.qmpower.com)

