

Refrigeration Condensers



Software Motor Company is defining a new standard for refrigeration efficiency with the SMC Smart Motor System. The system outperforms any existing motor technology with its software-enhanced, programmable SMC Smart Motors. Its variable speed control platform delivers unprecedented levels of energy efficiency and diagnostics that have never been available with electric motors. The SMC Smart Motor System significantly reduces refrigeration energy costs, yielding payback in less than three years for most applications.

The SMC Smart Motor System

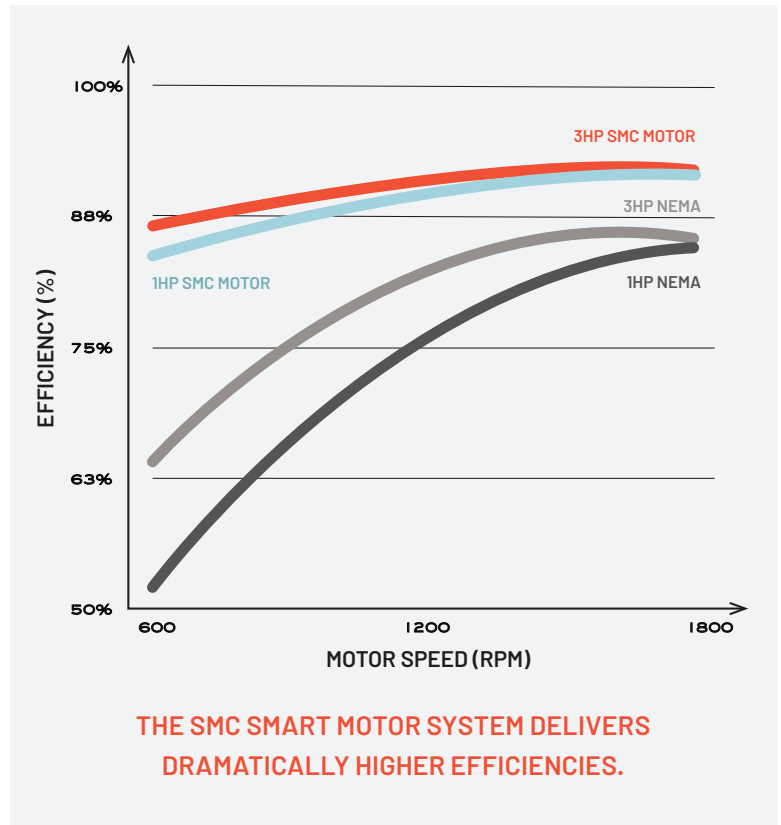
Most refrigeration systems waste energy by relying on condensers with inefficient motors and constant speed fans. Even newer systems with NEMA premium efficiency motors are wasting energy, primarily due to their constant speed operation. The SMC Smart Motor System breaks through today's efficiency barriers with revolutionary new technology.

A TRULY INTELLIGENT SYSTEM OFFERS UNPRECEDENTED EFFICIENCY

- Software control enables real-time, remote system monitoring and control via a web dashboard that communicates cloud-based data and analytics.
- Real-time monitoring includes an automated fault detection with the capability to send alerts if abnormal operating conditions arise. The system integrates easily with building management systems via industry standard protocols.
- Over-the-air updates enable performance optimization of embedded firmware and control sequences, resulting in a system that improves over time.

ENHANCED RELIABILITY

- SMC Smart Motors are guaranteed for three years. Their simple, rugged design includes the highest quality components, long-life bearings, low operating temperatures, and low start-up inrush current/torque, providing fewer points of possible failure.



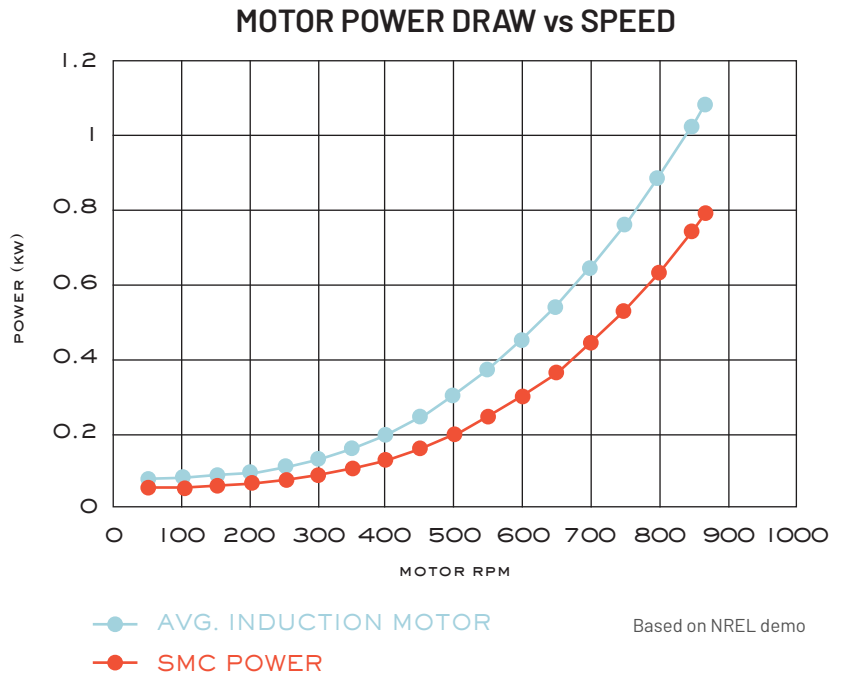


Proven Performance

In a field demonstration conducted by the National Renewable Energy Laboratory (NREL), the SMC Smart Motor System delivered superior performance. The trial replaced two constant speed induction refrigeration condenser motors at a Super Center in Denver, Colorado with SMC Smart Motor Systems. The software controlled variable speed operation of the SMC Smart Motor System delivered 70-74% annual energy savings compared to the original constant speed induction motors.

Additionally, NREL found that when compared to a VFD on the induction motors with VHPC, the SMC Smart Motor System provided energy savings of 31-34% annually.

COMPARATIVE FAN POWER DRAW OF AN AVERAGE INDUCTION MOTOR VS THE SMC SMART MOTOR AT VARIOUS FAN SPEEDS.



Bottom line, the SMC Smart Motor System can reduce refrigeration operating costs through a combination of actual energy savings and analytics that support smarter maintenance and a reduction in emergency service calls.



The Silicon Valley based Software Motor Company is setting a new standard of efficiency, reliability, and intelligence with the SMC Smart Motor System. SMC combines modern computing and software control with the proven reliability of switched reluctance motor technology to achieve an unprecedented optimal efficiency. The patented SMC Smart Motor System only uses energy when it is needed, thereby significantly reducing space conditioning and refrigeration energy costs. A fully programmable IoT controls package facilitates maintenance savings and easy integration with existing building systems.