

# HVAC Rooftop Units (RTUs)

Software Motor Company is defining a new standard for rooftop unit motor 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 the cost of HVAC and rooftop unit operation through energy and peak demand savings, yielding payback in less than three years for most applications.

## The SMC Smart Motor System

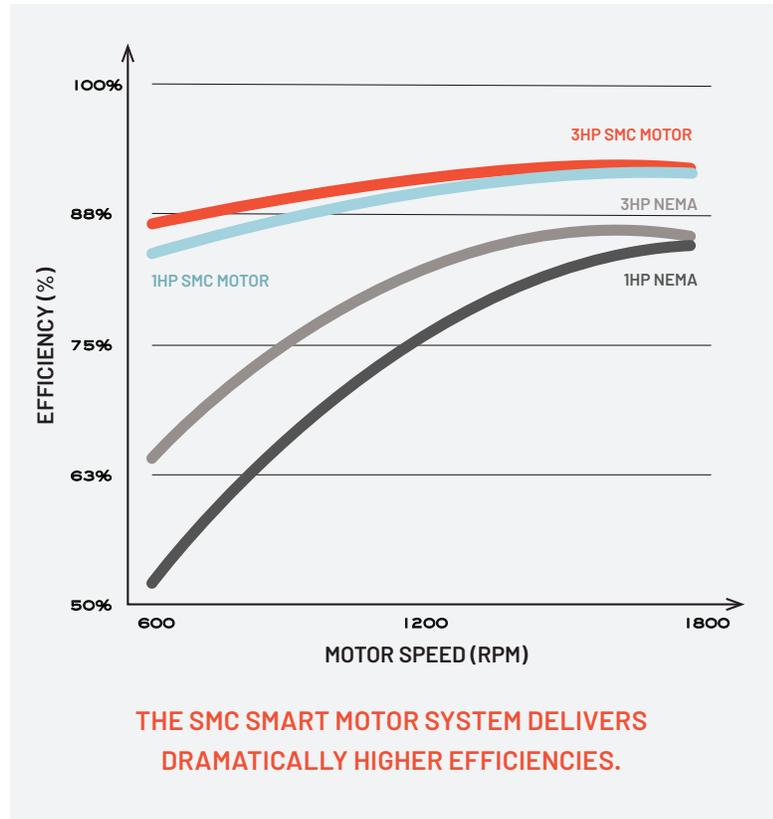
Most HVAC rooftop unit (RTU) systems waste energy by relying on inefficient motors that maintain constant speeds. Even newer systems with NEMA premium efficiency motors waste energy, primarily due to their constant speed operation. The SMC Smart Motor System offers revolutionary new variable speed technology that makes the system more efficient, reliable, and intelligent.

### 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

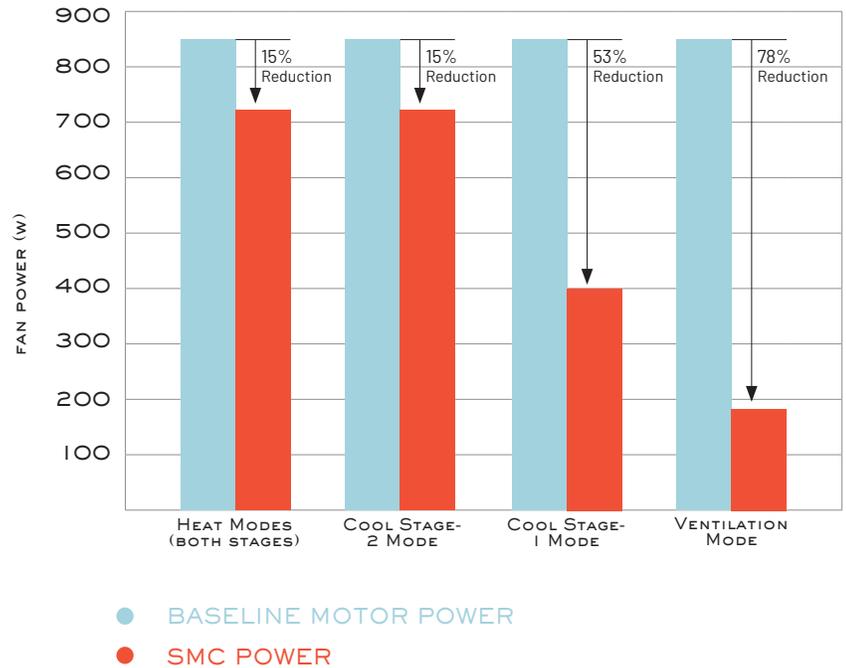
The results speak for themselves:

- Third-party lab testing by Southern California Edison (SCE) found that the SMC Smart Motor System increased the average efficiency of the fan assembly by 23-28% across a wide range of static pressures and airflow rates.
- In the same trial, the SCE report illustrates the SMC motor reduces annual energy usage by 50% to 57% when compared to the baseline single speed induction motor.

## Easy to Install

SMC motors are drop-in replacements for existing NEMA frame motors. The installation process is simple. It comes with all components required for installation and requires minimal on-site commissioning, saving installation time.

## FAN POWER SAVED BY APPLYING THE SMC SMART MOTOR TO A CONSTANT SPEED RTU



Bottom line, the SMC Smart Motor System can reduce air conditioning operating costs through a combination of 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.