Refrigeration Condensers

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

The Turntide 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 Turntide 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
- Turntide 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 Smart Motor System delivered superior performance. The trial replaced two constant speed induction refrigeration condenser motors at a Super Center in Denver, Colorado with Turntide Smart Motor Systems. The software controlled variable speed operation of the 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 Turntide Smart Motor System provided energy savings of 31-34% annually.

Bottom line, the Turntide 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.

Indemnity

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