

Energy-Saving Motors



Baldor's Super-E Motors are designed to conserve energy over extended time periods. Payback can occur in less than a year depending on motor size. The right combination of these motors and adjustable-speed drives can yield energy-cost savings up to 50%, according to the company. Baldor Save+ software can compare operating costs, summarize annual savings and calculate payback time based on individual operation. Premium Super-E motors are available in Totally Enclosed Fan-Cooled and Open Drip-Proof construction. All three-phase motors are Inverter Ready per NEMA Standard MG1, Part 31.4.4.2., meaning the motors in 230 and 460 volts meet NEMA's corona inception voltage requirements and can withstand peak voltages of up to 1600 volts. Premium efficiency motors also are available in single-phase designs.

Baldor Electric Co. Ft. Smith, AR

For more info, enter 261 at www.UMfreeinfo.com



AC Drives

Motors controlled by AC drives enable users to control motor speed, which can afford various energy-saving benefits. Fans and pumps are the most common energy-saving applications for AC drives, with savings typically 20-50%. When a fan is driven by a fixed-speed motor, for example, airflow can be higher than needed. Airflow can be regulated by using a damper to restrict flow, but it is more efficient to regulate the airflow by regulating the speed of the motor. AC drives also reduce start-up current, which allows for use of smaller fuses and supply

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connections, and reduces peak loads on the electrical network. In addition to energy-savings, AC drives allow for smoother overall operation, acceleration control, use of different operating speed for each process and the ability to compensate for process variables.

Vacon, Inc. Chambersburg, PA

For more info, enter 262 at www.UMfreeinfo.com
Cylinder/Valve Units for Pneumatics



Of the many ways in which compressed air systems can lose energy, one is the use of centralized systems, which are cumbersome and wasteful due to the need for long lines. Small, decentralized units at the site of the application are more efficient. The concentration of pneumatic functions prevents pressure losses through long lines from the control cabinet to the pneumatic drive. By using cylinder/valve units, hose connections can almost completely be spared, providing an average energy-saving potential of 35%, according to the company. Additional advantages include simple installation and maintenance, faster response times and higher cycle frequencies.

Bosch Rexroth Corp. Lexington, KY

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Gas-Fired Water Heaters



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Clamp-On Flow Meters



TFX Ultra ultrasonic flow meters clamp onto the outside of pipes and do not contact internal liquid. Two versions are available: a stand-alone flow meter and an energy flow meter that's used in conjunction with dual clamp-on RTDs. The energy flow meter measures energy usage in BTU or tons and is ideal for retrofit, chilled-water and other HVAC applications. The TFX Ultra units' clamp-on design reduces installation time and material costs because there is no need to shut down a process for installation or maintenance. A TFX Ultra can be installed and fully operational in minutes. With no moving parts, there is no mechanical wear; no repair kits or replacement parts are ever needed. The units feature bi-directional flow measurement, a totalizer featuring forward, reverse and net total, and Modbus communications.

Dynasonics
Racine, WI

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Software Identifies Savings Opportunities

Eaton's Power Xpert® Reporting software helps facility, information technology and energy managers benchmark existing energy usage and power consumption in their power distribution

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systems, allowing energy and cost-saving opportunities to be identified and implemented. The software can aggregate data from multiple databases to provide a complete enterprise-level view of power consumption and energy usage. When combined with the company's Power Xpert Software or Foreseer, Power Xpert Reporting is designed to enable energy-cost allocation, compare power consumption, monitor branch circuits and summarize overall power quality. It can also play a key role in helping users adopt green strategies and qualify for Leadership in Energy and Environmental Design (LEED) credits through the U.S. Green Building Council (USGBC).

Eaton Electrical Group Raleigh, NC

For more info, enter 266 at www.UMfreeinfo.com
Integrated Automation System

ABB's IndustrialIT Extended Automation System 800xA integrates process and power systems on one unified platform, offering advantages such as improved energy efficiency, process reliability and overall productivity. By integrating power and process systems on the common 800xA platform, users can optimize the design and performance of their electrical and automation systems, and see additional benefits in reduced maintenance, engineering and overall lifecycle costs. Typical savings can result in a 20% reduction in capital and operating expenses. According to ABB, the 800xA system has been sold to more than 5000 new and existing ABB customers in virtually every industry, from process industries and mining to electric and water utilities.

The ABB Group Norwalk, CT

For more info, enter 267 at www.UMfreeinfo.com