Motor Management Optimization

A Sustainable Way to Improve Application Performance While Reducing Energy Usage and Overall Costs



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Table of contents

The impact of a holistic, optimized motor management solution

4

7

Our approach: Customer-focused, integrated, and holistic

5

8

Want to reduce CO₂? Include an Altivar Process Drive in your design Our Commitment to Sustainability

Start your journey by optimizing your solution design



As modern industrialists, we face mounting pressure from governments, society, and investors to demonstrate sustainability practices. Today's buyers demand eco-efficient brands, green products, responsibly sourced materials, and sustainability-focused solutions and services.

Achieving sustainable operations is one of the most important challenges industrial enterprises have ever faced. The good news is that the technology to address sustainability already exists. Digital electrification and automation solutions allow us to operate everything more efficiently. Motor management optimization brings together these two key industrial elements to improve the long-term sustainability of your industrial systems while improving motor application performance, cost savings, and energy efficiency.

With an integrated, holistic methodology which combines technology, products, expertise, and services, our customer-centric approach can save you up to 80% of design time on engineering* and show you how to cut energy usage and CO₂ pollution.



The impact of a holistic, optimized motor management solution

High-powered electric motors are critical assets for industrial operations, but they are also big consumers of electrical energy – in a plant, for instance, they can use up to 95% of the facility's electricity.

With the effective design, engineering, and management of motor applications, efficiently run motors can significantly contribute to a company's sustainability, its energy usage, and CO2 emission reductions. It can also help optimize an application performance, productivity, reliability, and safety, all of which leads to less unplanned downtime and fewer plant stoppages.

20% 50% improvement reduction in in motor motor down availability time

4x faster recovery after an unexpected stop

Holistic motor management solutions can deliver benefits such as¹:

20% return on investment costs with optimal voltage levels



Up to a 30% reduction in solution costs with enhanced design engineering.

¹ Observed results from customer implementations



Our approach: Customer-focused, integrated, and holistic

Our unique, integrated and holistic motor management approach is delivered through:

- **Customer-centric focus.** Our comprehensive motor management solutions from design and implementation to management – are tailored to your specific motor application, process, safety and electrical requirements.
- Holistic architecture. Our solutions bridge your automation and power architectures to increase motor drive train efficiency.
- **Purposefully engineered integration.** Our design process helps you digitally unify your motor control, automation, and energy systems for greater energy efficiency and better asset management.
- Simplified design and product selection. Architectural design and product selection are critical, and we simplify this process with tailored design and selection tools.
- **Optimized performance and maintenance.** And finally, we include comprehensive asset performance management in our solutions to improve asset reliability, maintenance, and operation.



Start your journey by optimizing your solution design

We have simplified the motor design process with our EcoStruxure Motor Management Design tool, which has two key benefits and functions:

- **1. Design:** You can save up to 80% time in the "what if" analyses in design decision making, as the EcoStruxure Motor Management Design tool combines extensive power system engineering calculations and component selection. It integrates all the design aspects of your application in one place to help you build a complete motor management architecture.
- **2. Energy savings:** With the EcoStruxure Motor Management Design tool, you can drive your own analysis for energy savings. Based on motor application characteristics of variable speed drive with usual flow control, you get immediate analysis of:
 - a. Energy and cost saved per year, using a Variable Speed Drive
 - b. Payback period of Variable Speed Drive investment
 - c. Pollution reduction per year



Discover the potential: energy savings, payback, pollution reduction - and more

Want to reduce CO₂? Include an Altivar Process Drive in your design

Optimized motor management solutions are one of the key ways that your company can reduce CO₂ emissions, especially when you include a Schneider Electric Altivar Process drives in your design.

Our Altivar drives have built-in IIoT intelligence that can be customized to your motor application to increase performance while improving safety and reliability. These drives can also help reduce power consumption and boost efficiency, with results such as:

- Up to 50% energy savings (over direct line motor starters)
- Up to 20% reduction in downtime •
- 8% additional savings (over a standard drive) \bullet
- Reduce CO₂ emissions^{*} •





Our Commitment to Sustainability

At Schneider Electric, sustainability is at the core of our purpose, culture, and business as we accelerate our contributions to a sustainable and inclusive world. We are on a mission to make industries of the future sustainable, agile, and resilient through open, software-centric industrial automation. Our EcoStruxure architecture and platform can unlock efficiency and help you meet demands while using fewer raw materials. We provide solutions that allow you to integrate global operations, reduce costs, and increase profit potential. We also help you deliver more resilience thanks to software that enables visibility, automation, and digitalization that gives you the ability to compete in evolving environments.



Green Premium: A focus on environmental impact

Schneider Electric embraces sustainable performance by design. Our motor management solutions include green premium products that come with detailed information on their regulatory compliance, material content, environmental impact, and circularity attributes. They deliver market-driven value propositions through third-party labels and product certifications that support our customers' sustainability ambitions.

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Additional resources

More information on:

- Our motor management solutions
- Our Green Premium Offers
- Additional design tools for motor management:
 - EcoStruxure Motor Control Configurator
 - Altivar process Configurator
 - See how you can save energy with motor management





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