

The Complex and Changing World of the Industrial Motor Circuit

A Single Source to Help You Achieve Greater Results

The motor circuit presents a complex combination of challenges

The motor is the backbone of industrial motion. From the switchgear, through protection and control, and ultimately to the motor and the connected load – an estimated 65% percent of industrial electricity consumption occurs on a motor circuit. These machines make up, by far, the largest single category of electricity end use in the American economy. Keeping them running requires a coordinated effort across the entire motor circuit.

Today we face a new set of challenges

The **demand to reduce** the costs of maintenance and operation continues to increase. Maintenance frequency is being reduced, **there are fewer resources**, and time is even more limited. Additionally:

- Requirements are increasing for reliability and safety;
- Modernization challenges are resulting from aging equipment;
- Growing complexity from new technologies and standards;
- **Energy efficiency** demands continue to increase.



EECO can help you today

We have the capabilities to help you reach your goals. Call us at 800.993.3326

EECO is a much more integrated solution

- EECO supports products spanning the entire circuit in both low and medium voltage categories.
- Our organization is staffed with specialists in Power Distribution, Motors,
 Motor Repair and Drives.
- Our service team provides the hands-on roles to serve your needs, including Reliability Engineers, Field Technicians, and Quality Coordinators.
- Our repair facilities provide reliability centered services and a rich data source to explore ongoing improvement opportunities.

Benefits from our integrated solution

- Lower storeroom costs
- Reduced downtime
- More efficient service outages
- Lower total maintenance expense resulting from longer runlife
- Higher productivity from increased reliability of the entire motor circuit

An Integrated Portfolio of Products

We provide a complete line of products to fulfill your requirements for both medium and low voltage motor circuits. Our suppliers include major brands such as Eaton, Rockwell, Siemens, Thomas & Betts, Toshiba, Yaskawa, Mersen, and more.



As one of very few distributors with repair capabilities and field teams, EECO provides a more integrated solution, offering a comprehensive and flexible approach to the entire motor circuit."



NEMA and IEC Motor Control

- a. Full and reduced voltage motor starters
- b. Motor control centers
- c. Modular motor starting systems

Power Distribution

- a. Power transformers
- b. Switchgear
- c. Panelboards and loadcenters

Motor Circuit Protection and Health

- a. Circuit breakers and fuses
- b. Overload relays
- c. Smart motor protection relays
- d. Power quality monitors

Variable Frequency Drives

- a. Communication adaptors
- b. Drive rated power cable
- c. Short and overload protection
- d. Line reactors
- e. Dynamic braking

Safety

- a. LOTO (Lock Out Tag Out)
- b. Safety disconnects
- c. Arc flash protection

Low and Medium Voltage Motors

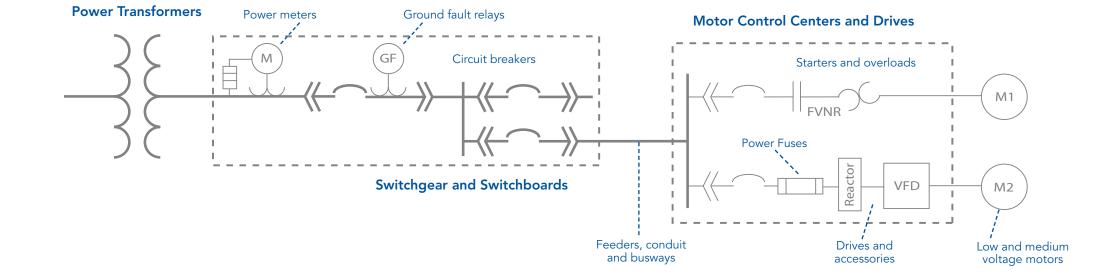
- a. Connection lugs, insulation, and terminal blocks
- b. Medium voltage power cabling and locomotive cable
- c. Motor bases and adapters
- d. Winding RTDs, moisture and vibration detection
- e. OEM accessories

Could you use help with an upcoming design build project?

Are all critical spare components provided for in your storeroom?

Do you have motor circuit related training needs?

Our team can help from concept to completion. Call EECO at 800.993.3326 today.





Integrated Services

We take a comprehensive assessment of your entire motor circuit, and can access its health from one convenient location. We provide a host of services, including motor circuit analysis with both PdMA and Baker technologies. Our services can easily be bundled into annual programs billed at a flat monthly fee. Call us at 800.993.3326 to get started today.

Onsite **Assessment**

Collect data and measurements for analysis

- a. Installed base evaluation
- b. Storeroom evaluation
- c. Reliability assessment
- d. Criticality assessment
- e. Root cause failure analysis
- f. Circuit protection verification
- g. Power quality evaluation
- h. Energy assessment testing
- i. Diagnostic testing

Data Driven Recommendations

Provide substantiated recommendations with traceability to collected data

- a. Energy payback analysis
- b. Product migration and upgrade option planning
- c. Process and reliability improvement
- d. Product selection and standardization
- e. Maintenance and operation standards f. Repair specifications

Performance **Evaluation**

Measure the impact of improvement actions

- a. Energy reduction evaluation
- b. Failure rate comparison
- c. Annual program impact review
- d. After action impact surveys
- e. SKU reduction impact analysis

Procurement and Inventory

Plan for new procurement and inventory options

- a. Storeroom planning
- b. Supplier rationalization
- c. Critical spare management
- d. Operational readiness
- e. Warranty management

Repair O Management

Optimize repair programs to meet your goals

Improvement Capabilities and Service Programs

- a. Vendor selection criteria
- b. Specification management
- c. Failure mode and effects analysis
- d. Documentation management
- e. Data mining and analysis

Service Capabilities O and Program

Maintain complete circuit protection and health

- a. Procurement and Inventory Management Program
- b. Diagnostic Testing Program
- c. Variable Frequency Drive Program
- d. Medium and Low Voltage Motor Repair Programs
- e. Site Services Program
- f. Condition based monitoring - vibration analysis, oil analysis, and thermography

Motor control centers and accessories



www.eccoonline.com

Field disconnects and safety hardware

Low voltage motorsincluding mill-chem, IEEE 841, and VFD performance motors

Wireway and enclosures





and pump applications



Medium voltage motors

Getting Started

Getting started is simple, call 1.800.993.3326 today. We can conduct a risk free, preliminary onsite assessment and interview to better understand your goals. Next steps could be a reliability assessment, storeroom evaluation, a diagnostic testing trial, and other options depending on your needs. You may also choose to simply request information on frequently raised questions such as how to:

- Create a criticality list and plan for risk management
- Define a program to reduce maintenance and increase reliability
- Ensure your motor circuits are properly protected
- Implement advanced protection and monitoring for critical systems
- Measure for actual energy savings potential
- Service and upgrade aging switchgear and motor control centers
- Eliminate motor bearing fluting on variable frequency drive circuits
- Reduce nuisance tripping on VFDs and high efficiency applications
- Protect variable frequency drives
- Implement a competitive bidding process for motor related products and services
- Develop a motor or motor repair specification for your needs
- Audit a motor repair provider for quality
- Implement a competitive quote process for your storeroom
- Start a repair program for electronic devices

About Us

EECO is an expert in industrial automation and motor solutions, with the benefit of full line electrical distribution. Major manufacturers, OEMs, and contractors trust us to provide solutions that lower cost of ownership, increase reliability, and improve performance.

We achieve results for you by providing a combination of capabilities including onsite assessment, performance evaluation, and data driven recommendations.

Whether an OEM maximizing design productivity, an industrial contractor with a design build project, or a process mill implementing a reliability program, we are dedicated to helping you reach your goals.



