Martin Technical™

Tel: 1-866-234-6890
Fax: 303-552-9909
Sales@MarTechnical.com
www.MarTechnical.com

Making Facilities Better, Safer and More Efficient

Short Circuit Study / Analysis

Short Circuit (Fault Current) studies are required to insure that existing and new equipment ratings are adequate to withstand the available short circuit energy available at each point in the electrical system. Fault currents that exceed equipment ratings are capable of extensive equipment damage and are a serious threat to human life. On large systems, short circuit studies are required to determine both the switchgear ratings and the relay settings. No substation equipment, motor control centers, breaker panels, etc. can be purchased without knowledge of the complete short circuit values for the entire power distribution system.

The short circuit calculations must be maintained and periodically updated to protect the equipment and the lives. It is not necessarily safe to assume that new equipment is properly rated.

BENEFITS

- Reduce the risk a facility could face and help avoid catastrophic losses.
- Increase the safety and reliability of the power system and related equipment.
- Evaluate the application of protective devices and equipment.
- Identify problem areas in the system.
- Obtain recommended solutions.

DELIVERABLES

A typical short circuit study includes:

- Short circuit calculations, which highlights any equipment that is ascertained to be underrated as specified
- Suggested modifications to rectify the underrated equipment (trip sizes within the same frame, the time curve characteristics of induction relays, CT ranges, etc.)

The Protective Device Setting and Coordination Study is the suggested follow up on analysis to develop the coordination curves, highlighting areas lacking coordination. Presentation of a protective device study would include a technical evaluation with a discussion of the logical compromises for best coordination.

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About Us

Martin Technical provides practical services for making facilities better, safer and more efficient. Our expert staff combines their real world work experiences of the past with today's technologies and best practices to provide our customers with the solutions and knowledge they need to maximize their operations and keep safe doing it. And because all our experts have in-field experience, we understand the difference between theory and application and are able to translate today's complex problems into simple solutions that can be implemented tomorrow.

About Our Customers

Our customers represent a broad spectrum, big and small, and we have provided services for virtually every type of company, plant or facility, including:

- Manufacturing Plants
- Schools & Universities
- Data & Service Centers
- Airports
- Government & Military
- Hospitals
- R&D Facilities
- Public Buildings
- Energy & Utility Plants
- Water & Waste Water
- Hotel & Hospitality
- Commercial Buildings

Liability / Insurance

We carry the following insurance policies:

- General Liability - $2 Million per occurrence / $4 Million aggregate policy
- Professional Liability - $1 Million policy

In addition, any outside engineers used on projects are required to have their own individual professional liability and general liability insurance.

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Products & Services

We specialize in making plants and facilities better, safer and more efficient by providing the following services and products:

Electrical Studies & Testing

- Arc Flash Analysis & Labeling
- Short Circuit Study
- Protective Device & Coordination Study
- Power Quality Audit
- Motor Load Studies
- Infrared Inspection

Electrical Safety

- Electrical Safety Program Development
- Electrical Safety Audit
- Electrical Safety Training
- Qualified Person / Electrical Worker Certification
- Lockout / Tagout Programs
- Infrared Inspections

Energy Management

- Energy Audits
- Boiler, Compressor & HVAC Audits
- Energy Management Training

Electrical Maintenance Training

- Electrical maintenance training topics are available through our training partners.