



Power Studies

## Arc Flash Studies

Keeping your employees, equipment, and facility safe is absolutely vital in the industrial manufacturing world. This means ensuring that your electrical equipment is safe from short circuits and electrical faults as they can result in an arc flash. An arc flash not only poses serious risks for your facility, but it puts your employees in danger. With an arc flash study, FZ will ensure that you have the right PPE and safety precautions in place for your facility.

### Reasons to Complete an Arc Flash Study

#### Ensure Compliance

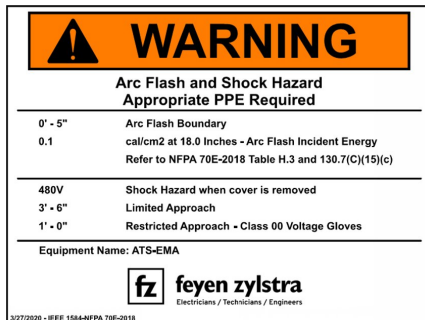
Arc flash studies must be renewed every 5 years under OSHA and NFPA 70E. Additionally, numerous electrical codes may apply to your business, depending on its nature, operational needs, and location.

#### Keep your Team Safe

An arc flash study will help reduce or define hazards in your facility. It also creates a solid basis for qualifying onsite employees and indicating the right amount of PPE for them to wear while servicing equipment.

#### Protect your Business

Protect equipment and facility against loss of property, financial loss, and downtime with an arc flash study.



#### About

- An arc flash study is an assessment that determines the fault and short circuit hazards present in a facility's electrical system.
- During an assessment, we'll gather data on your electrical equipment, develop one-line diagrams of your electrical system, and perform calculations and studies.
- You'll receive a safety plan that outlines your facility's equipment and circuit parts, protecting your employees from dangerous guesswork.
- You'll also receive each piece of equipment's PPE requirements and any necessary warning labels.

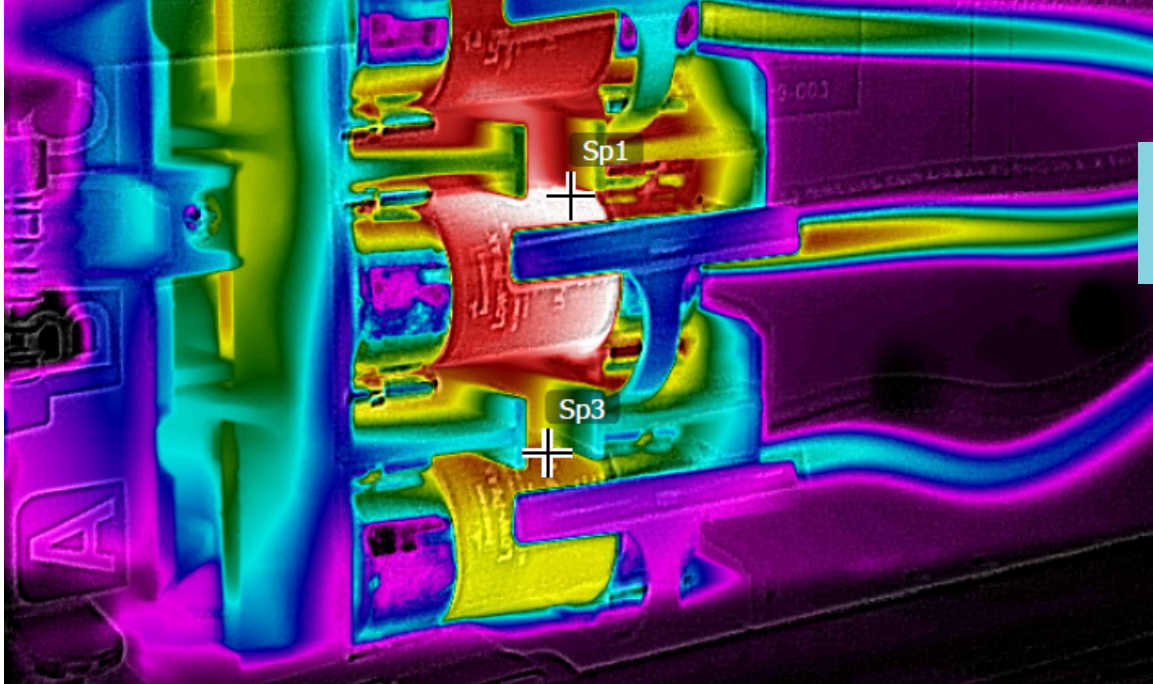
#### Other Benefits

- A more reliable electrical distribution system
- Mitigate your business's liability
- Scaled to fit your needs
- Helps identify maintenance needs and issues, thereby mitigating costs in the future

#### Value FZ Brings

- Our electricians perform the studies and gather the information—as experts on electrical systems, they'll take note of any serious equipment issues during the study
- We offer arc flash servicing agreements to simplify the renewal process
- As experts in these studies, we'll streamline the experience and minimize hassle





## IR Thermography Reports

### About

- An IR thermography report will detect the infrared energy of your electrical equipment and display an image of how heat is distributed
- The resulting report outlines your equipment's electrical overloads, failures, and hazards as well as hot spots and poor connections
- A report will determine if troubleshooting or maintenance are needed for your electrical distribution system
- A study requires completion by a qualified specialist

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### Benefits of IR Thermography Reports

- Identify planned maintenance priorities: discover if your equipment needs to be repaired, replaced, or monitored
- No contact needed with the equipment
- No downtime needed
- Real-time output & quick results
- Helps avoid expensive repairs and emergencies
  - Increases safety and insurability
  - Reduces liability exposure
- Improves system performance
- Increases equipment life

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### Value FZ Brings

- No need to invest in IR equipment—we'll bring it to you
- Our electricians perform IR scans, as they are experts on thermography and electrical systems
- We have the expertise and knowledge to evaluate the results



## Power Quality Studies

Power systems are prone to fluctuations such as dips, swells, and outages, that when left unchecked can result in equipment damage and failure. A power quality study monitors these changes and provides you with actionable next steps you can take to mitigate potential issues. During a study, FZ will analyze and identify the power fluctuations and harmonic distortions occurring in your equipment. By pinpointing these issues and their causes, we'll help improve the safety and efficiency of your plant floor.

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### How it Works

Our expert technicians start by hooking up a meter to your equipment. From there, we're able to identify power anomalies and provide you with a report on how to remedy any issues that arise in the reading. In the end, you'll have a deeper understanding of your power systems and an actionable plan on how to resolve any power quality issues.

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### When are Power Quality Studies Needed?

- When equipment failure is caused by bad power quality
- When intermittent power loss is causing equipment downtime
- When you want to understand your utility back charges

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### Benefits of a Power Quality Study

- Minimizes downtime and interruptions
- Saves money and operation costs
- Maintains productivity levels
- Increases safety, as machines are less likely to overheat with proper power distribution