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EcoStruxure Power helps facilities ensure protection from arc fault incidents

You need to operate electrical equipment safely, without affecting facility operations. In the past, much of the focus was directed toward shock prevention. But today, as NFPA 70E and NEC have evolved, significant effort has been invested in designing and producing equipment that mitigates the risk associated with arc fault.

EcoStruxure Power delivers this value to our customers, with digital architectures that address key business challenges and help make facilities safer, more reliable, and more efficient. Address these key dimensions of electrical safety with arc fault detection.

Read the white paper
Challenges and Opportunities

Digitizing Electrical Distribution

Digital Architecture

Application Overview

Digital Architecture
Arc fault protection

Arc faults can happen at any time

Arc faults can be generated by a variety of factors: an operator error during installation or maintenance, deterioration of electrical equipment, or even from a conductive tool, air, water, or animal. Wrong tightening torque on a connection or a misaligned washer or clamp have also been known to cause arc faults.

The air will be ionised and ready for the electrical, leading to a huge discharge when a new electrical path is created. The consequences of the resulting arc flash can be dramatic – including destruction of switchgear or severe injury to personnel.

Today an arc flash analysis for switchgear with incomers greater than 600A is mandatory (NFPA70A).
Arc fault detection

The benefits of mitigating arcs with a digital solution

A digital arc fault solution:

- Protects personnel if the fault occurs during maintenance or the commissioning
- Reduces arc fault impacts and protects equipment against complete destruction
- Allows fast intervention through fault event location and quickly informs maintenance people
- Detects installation weaknesses via fault history logging
- Allows remote configuration at a safer position
- Provides maintenance personnel with indication of ERMS mode via the mobile app for digital low voltage circuit breakers

25% of all fires worldwide are caused by electrics
IoT enabled applications for optimizing arc fault detection
Arc fault protection

How can you save money by maximizing uptime?

Avoid electrical fires and ensure protection

- Causes of internal arc, such as environmental conditions, faulty/old equipment, forgotten tools, and intrusion of animals can be numerous and difficult to track.
- Supplement proper safety policies by resisting internal arc both at MV and LV by tripping fast to limit internal arc.
- MV cubicles provide internal arc withstand to align with IEC standards, and relays provide instantaneous or time-delay tripping.
- At low voltage, improve safety of personnel through digital adjustment to protection settings to trip faster when internal arc occurs.

I want to protect personnel as well as electrical rooms and equipment from arc flash. And, I want to reduce the downtime that results from arc flash.

Read the blog
Arc fault mitigation (IEC and NEMA)
Avoid electrical fires and ensure protection for your facility and your personnel.
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