

HONEYWELL SALISBURY SERVICES

ARC FLASH DELIVERABLES

1. Fault Current Study

The three-phase and single-line-to-ground fault currents are calculated throughout the electrical system.

WHY IS THIS INFORMATION USEFUL?

This information is needed to perform the equipment evaluation and the arc flash studies. Also, fault current information is vital when considering equipment replacement or adding equipment to your facility.

2. Equipment Evaluation

Calculated fault currents are compared against overcurrent device interrupting rating and equipment short circuit current ratings to ensure proper equipment rating.

WHY IS THIS INFORMATION USEFUL?

The National Electric Code (NEC or NFPA 70) requires that overcurrent devices have an interrupting rating at least equal to the available fault current [109.9]. Additionally, electrical distribution equipment [110.10] and industrial control panels [409.22] must have a short circuit current rating equal to or greater than the available fault current. The Equipment Evaluation must be performed to ensure NEC code compliance.

3. Arc Flash Study

Calculated fault currents are compared against overcurrent device trip curves to determine incident energy exposure. Based on incident energy exposure, the arc flash boundary and arc flash PPE requirements are determined.

WHY IS THIS INFORMATION USEFUL?

Arc flash hazards are known to cause potentially life-threatening injuries. OSHA requires that employers provide protection from electrical arc and shock hazards. To ensure employees are adequately protected, an arc flash study must be performed to know the thermal PPE requirements to be worn within the arc flash boundary, such that personnel exposure is no more than 1.2 cal/cm².

4. Equipment Report

The Equipment Report is a cataloging of all electrical cabling, transformers, motors, generators, and overcurrent devices (i.e., fuses, circuit breakers, and relays) that appear on the single-line drawings.

WHY IS THIS INFORMATION USEFUL?

From a maintenance perspective, this is valuable information for equipment replacement and just as inventory of the electrical distribution system equipment.

5. Coordination Study

Overcurrent device trip curves are compared to ensure the device closest to a fault is the one that trips. Main electrical distribution equipment, large motors, and large transformers that have the potential to cause nuisance tripping are evaluated.

WHY IS THIS INFORMATION USEFUL?

Coordination studies are useful to make sure overcurrent devices and settings are properly coordinated to eliminate or reduce nuisance tripping. Additionally, a Coordination Study is useful to also find cases where an overcurrent device or electrical conductor is not sized adequately.

6. Single-Line Drawings

Drawings of the electrical interconnections of the analyzed equipment are included in the study package.

WHY IS THIS INFORMATION USEFUL?

Accurate electrical single-line drawings are essential to any lock out tag out program. Single-line drawings are valuable maintenance tools for navigating electrical systems and making system modifications or expansions.

Contact Us:

To get a free quote or request more information, please email us at SAS@Honeywell.com or call 630-343-3756

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