

Arc Quenching Magnum DS[®] low voltage switchgear

Frequently asked questions

Eaton continues to demonstrate leadership in electrical safety solutions with the introduction of an arc flash quenching system for low voltage applications. Eaton's Arc Quenching Switchgear advances the state-of-the-art for arc flash safety solutions by reducing incident energy to a level where the switchgear will survive an arc flash event, while providing enhanced safety and minimal equipment downtime.

Questions

Answers



How quickly does the Arc Quenching System (AQS) quench an arc flash?

The AQS takes approximately **4 milliseconds to quench an arc flash**. This is the time that will be used to calculate the incident energy of the lineup.



How much will the AQS reduce the incident energy of the switchgear?

The incident energy of a lineup of Arc Quenching Switchgear will vary based on available fault current and other factors specific to the power system. An arc flash study must be performed to determine the actual incident energy. However, sample calculations performed at 480V and 85kA available fault current show that the incident energy is below 1.2 calories/cm².



How quickly can I return my equipment to service in the event of an arc fault?

It will depend upon how quickly the switchgear can be evaluated and the cause of the arc fault identified and remedied. **Typically, with the proper resources available, this process could be completed in a day or less.**



Does the Arc Quenching Device (AQD) apply a bolted fault to the switchgear when it operates?

No. The AQD is a current-limiting device when it operates. It will draw at least 25% less peak fault current than a bolted fault which will induce at least 44% less stress on upstream equipment.



Does the AQD vent gases into the room after quenching an arc flash?

No. The AQD is a fully enclosed, ventless device.



Will the AQS provide protection from an arc flash with a breaker removed or a door open?

Yes. The switchgear will provide arc-resistant protection even when doors are open or panels are removed.

Learn more at: [Eaton.com/AQS](https://www.eaton.com/AQS)

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