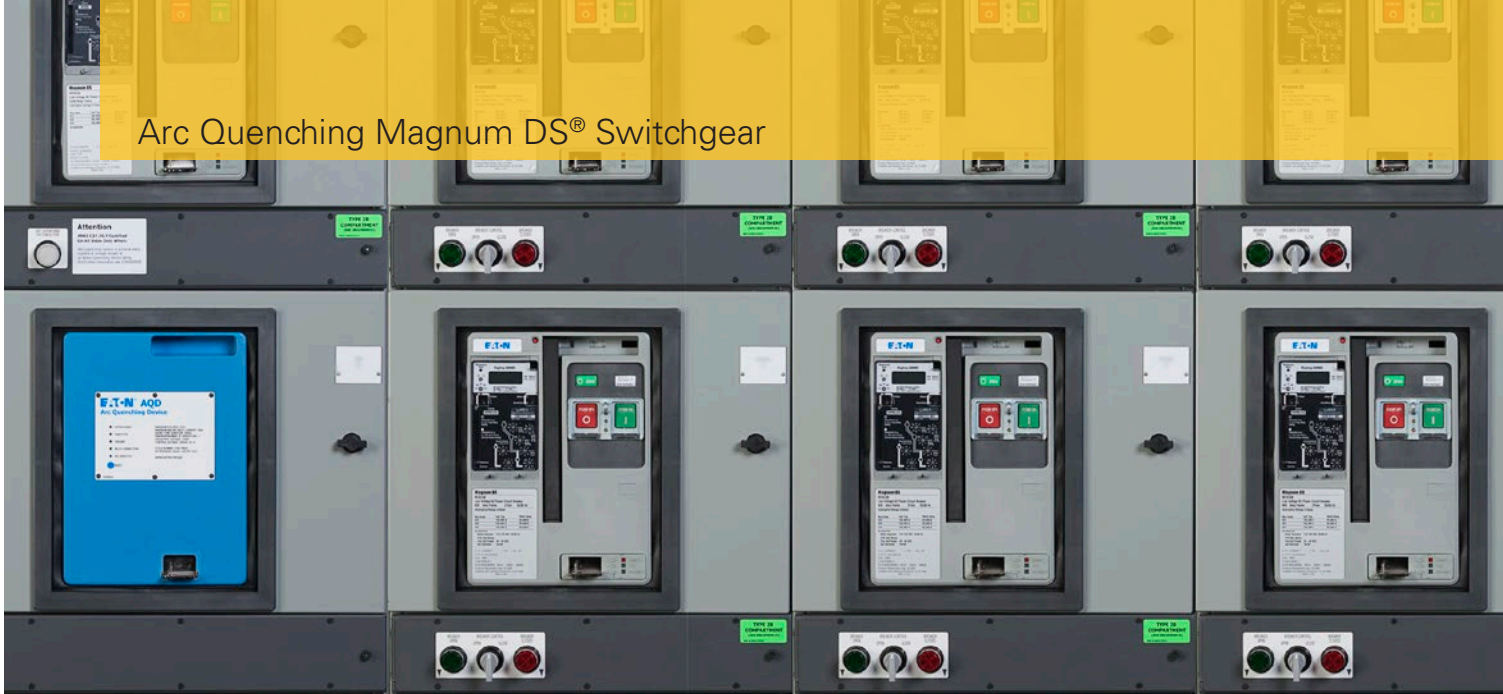


## Arc Quenching Magnum DS® Switchgear



# Superior protection – in a flash



Arc Quenching Magnum DS switchgear

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.

### Benefits

- **Exceptional incident energy reduction** – Reduces incident energy to less than 1.2 cal/cm<sup>2</sup>, far below methods that rely solely on a power circuit breaker to clear the fault. (For 480 V systems with 85,000 A of available fault current or less at a working distance of 18")
- **Enhanced safety** – Exceeds C37.20.7 arc-resistant testing requirements by demonstrating acceptance even when breakers are removed, doors are open and covers are removed - without the need for ducts, plenums or special construction
- **Advanced equipment protection** – Protects valuable switchgear assets from arc flash damage
- **Dramatically reduced downtime** – Switchgear can be quickly returned to service after an arc flash event

**<4 ms**  
arc quenching time

**C37.20.7**  
arc-resistant

**<1.2 cal/cm<sup>2</sup>**  
incident energy

**EATON**

Powering Business Worldwide

## Specifications

- Tested to ANSI/IEEE C37.20.7, Type 2B test guide in NEMA 1 construction
- Arc Quenching Device (AQD) is a UL Recognized Component per UL 2748
- Arc Quenching Switchgear designed to UL 1558, ANSI C37.20.1, CSA C22.2 No. 31-10, and C37.51
- Short circuit withstand rating up to 85 kA at 635 Vac
- Short-time withstand current rating, 85 kA for 30 cycles
- <4 ms arc quenching time
- >25% reduction in peak fault current
- >44% reduction in peak system stress
- Complete system self-supervision with health status communicated via Modbus and dry contacts
- Available in rear access and front access switchgear configurations
- Anti-nuisance trip technology

## How Arc Quenching Switchgear works:

Arc Quenching Switchgear detects and contains an arc fault in less than 4 milliseconds, drastically reducing the incident energy. It works by detecting the ignition of an arc inside the switchgear using the Eaton Arc Flash Relay and transferring it to the Arc Quenching Device. Arc Quenching Switchgear transfers the arc by creating a lower-impedance arcing fault, not a bolted fault, safely contained inside the Arc Quenching Device. This reduces the peak fault current by at least 25% and puts less stress on upstream equipment during a quenching operation.

## METHODS FOR ARC ENERGY REDUCTION

### ARC QUENCHING SWITCHGEAR

ARCFLASH REDUCTION  
MAINTENANCE SYSTEM™

BUS DIFFERENTIAL RELAY

ARC DETECTION RELAY

SOFTWARE INSTANTANEOUS TRIP

ZONE SELECTIVE INTERLOCKING

INCIDENT ENERGY (cal/cm<sup>2</sup>)