

MEDIUM VOLTAGE SWITCHGEAR

SafeGear® arc-resistant switchgear

MCC transition section



Benefits of arc-resistant construction

- Offers protection from objects or hot gases that might be ejected during an arc fault
- Vents and flaps are located on top of the enclosure to facilitate cooling flow and to release pressure into the plenum, significantly reducing operator risk during equipment operation and maintenance by assuring that all products of an arc fault are vented to an outside area, away from personnel
- Helps protect personnel from catastrophic effects of an internal arc fault, and also helps protect nearby equipment from collateral damage

Traditionally, switchgear and MCC have been connected by a cable from a feeder breaker in the switchgear to the main bus of the MCC to maintain arc-resistant construction. With the addition of a fully arc-resistant transition section, the switchgear bus can be directly coupled to the bus of the MCC and still maintain the arc-resistant integrity of the entire installation. Access to the bus connections is made via bolted, removable panels in the front and rear of the transition section.

The UL-certified, arc-resistant switchgear MCC transition section can accommodate any configuration:

- Single row
 - Front-aligned
 - Rear-aligned
- Back-to-back configurations

The transition section can be directly coupled with the Limitamp AR and Rockwell ArcShield. Options for separate or combined plenums to allow for maximum design and installation customization.

Galvanized steel construction

ABB's arc-resistant switchgear-MCC transition section is built using galvanized steel construction for increased protection from rust, scratches and corrosion. This also eliminates the need for painting of the galvanized surfaces.

Hem bending

Hem bends, single sheets of steel folded over upon themselves, are used throughout the construction of the transition section for strength and rigidity. This construction technique also protects maintenance personnel and as it eliminates sharp edges and burs in the metal work.

Certifications

- UL Listed
- C37.20.2
- C37.20.7
- · Seismic certifications available

| Voltage (kV) | Main bus continuous current (A) | Short circuit current | Arc- resistant accessibility type | Arc fault duration |
|-----------------|---------------------------------------|-----------------------|--|-----------------------|
| 5 | 1200, 2000, 3000 | 25, 31.5, 40, 50 | 2, 2B | 0.5 s |
| 7.2 | 1200, 2000, 3000 | 25, 31.5, 40, 50 | 2, 2B | 0.5 s |
| 5 | 1200, 2000, 3000 | 25, 31.5, 40, 50 | 2, 2B, 2C | 10-cycle |
| 7.2 | 1200, 2000, 3000 | 25, 31.5, 40, 50 | 2, 2B, 2C | 10-cycle |

Application information

- Back-to-back configurations with Limitamp available in continuous current ratings of 1200 and 2000 A only
- Limitamp symmetrical short circuit rating is 50 kA (RMS) at 0.5 seconds
- Limitamp is arc-resistant Type 2B per IEEE C37.20.7-2007
- A minimum of two frames of SafeGear are required for all applications and ratings
- A minimum of two frames of Rockwell ArcShield are required for all 50 kA ratings
- Plenums required for all ratings and configurations
- Plenums can be separate or combined (Some restrictions apply. Contact factory for details)



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