



ArcGard™

Arc-resistant low-voltage switchgear with Type 2B secondary compartment

**TYPE 2B
COMPARTMENT
(SEE IB01900001E)**

PART # 8652C27H12



Enhance safety, improve uptime



Industry's first technology to provide arc-resistant switchgear accessibility Type 2B rating with instrument and breaker secondary door open.

Critical environments demand the highest degree of uptime and personnel safety. To support these needs, Eaton developed the industry's first low-voltage switchgear technology designed to extend arc-resistant Type 2B ratings with instrument and breaker secondary door open.

Introduction

Typically, low-voltage switchgear contains a one-piece circuit breaker door to cover connection points for secondary wiring. However, the American National Standards Institute (ANSI) states that personnel opening the circuit breaker door to troubleshoot or modify circuit breaker control wire will void all protections provided to them by the C37.20.7 arc-resistant rating.

Per NFPA 70E, arc-resistant switchgear (as defined by ANSI C37.20.7) carries a hazard risk category of zero for circuit breaker operation and racking of breakers in cubicles with doors closed and latched. Eaton's ArcGard arc-resistant low-voltage switchgear with two piece door design provides access to circuit breaker secondary terminals while allowing the breaker door to remain closed and retain the arc-resistant switchgear

accessibility Type 2B rating, with instrument and breaker secondary door open.

The ANSI Type 2B with secondary door builds on Eaton's industry-leading low-voltage switchgear technology, which is designed to protect personnel around the entire perimeter of the switchgear from dangerous arcing faults. Combined, Eaton arc-resistant switchgear and secondary door technology can help reduce downtime and increase productivity while enhancing personnel safety.

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Features

- Two-part door design allows isolated access to circuit breaker and control wire,
- Can be incorporated into both rear accessible and front accessible designs
- Up to four-high breaker arrangements with breaker structures of 22-, 30- or 44-inches depending on breaker type and frame size with fixed 54-inch depth
- Front accessible cable compartments configurable at 22-, 30- and 44-inch widths
- Rear accessible depth options of 72-, 78-, 84- and 90-inch
- Floor-to-ceiling clearance height of 10 feet required whether exhausting into a room or through an optional arc plenum
- Eaton industry-leading design for low-voltage arc-resistant switchgear meets ANSI C37.20.7 standard and is engineered to protect personnel around the perimeter of the switchgear

Benefits

- Two-part door design allows ease of access to secondary breaker terminals while the breaker door remains closed to maintain Arc-resistant Type 2B rating
- Two-part circuit breaker door and secondary door combination allows protected access to control wire terminals
- The isolation chamber's adjustable sliding control wire entry will seal and assist in stopping the flow of explosive gases and particulates into the secondary terminal area while providing a means to accommodate varying quantities of wires
- Extends the Type 2B protection during an arc event even if the secondary door is open
- Closed door racking with a patented bellows allows for racking of a breaker into the disconnect position. It also helps protect the operator from any dangerous gases escaping from the secondary terminal door area, regardless of arcing location

Standards and Certifications

Eaton arc-resistant low voltage switchgear is designed, manufactured and tested in accordance with the following standards and certifications:

- UL 1558
- ANSI C37.20.1, ANSI C37.13, ANSI C37.51 and ANSI C37.20.7
- CSA® standard—CSA C22.2 No. 31-04
- Third-party (UL/CSA) witness tested
- Seismic certification 2006-IBC

Testing

Testing procedures were completed per ANSI C37.20.7 standards with arcs initiated in:

- Breaker compartment
- Vertical and horizontal bus
- Cable termination compartments

Additionally, the tested arc duration was up to the full 0.5 seconds recommended by ANSI C37.20.7, with no dependence on the tripping speed of an upstream breaker.



Isolation Chamber

Adjustable sliding control wire entry for ease of use when routing varying wire quantities located on each side of the terminal housing

For more information, visit
www.eaton.com/lva
or call your local Eaton sales office.

Eaton
1000 Eaton Boulevard
Cleveland, OH 44122
United States
Eaton.com

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