Power-Zone 4 Arc Resistant Low Voltage Switchgear

with ArcBlok Technology

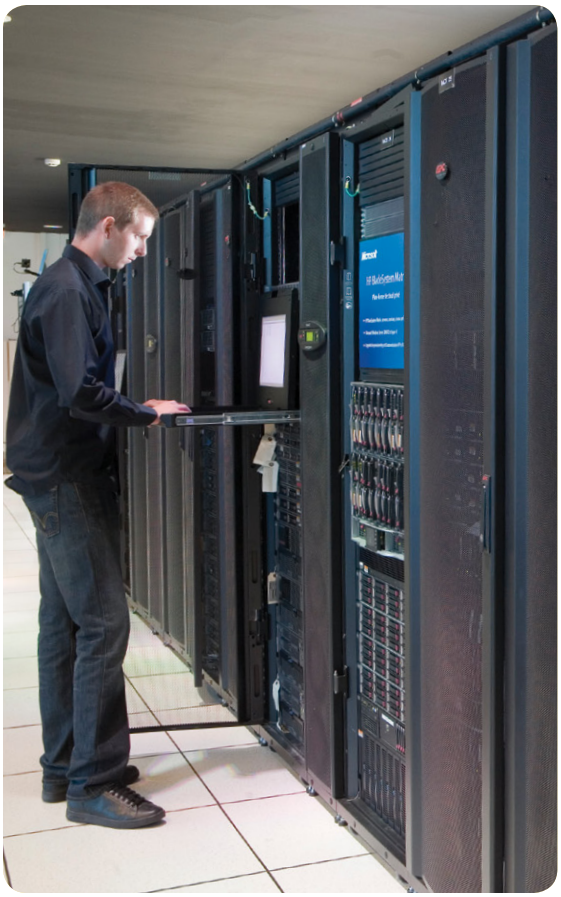
Explore and see how our arc resistant solutions provide superior protection.

Download our free interactive product model app today.

Make the most of your energy℠

Schneider Electric™

>> Workplace safety



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Five to ten arc flash explosions occur in electrical equipment every day in the United States, according to statistics compiled by CapSchell, Inc., a Chicago-based research and consulting firm that specializes in preventing workplace injuries and deaths.

As regulations imposed by OSHA, through NFPA 70E,® on end users regarding worker safety continue to become more stringent, the market is moving toward arc-resistant solutions.

Dangerous electrical events such as an arc flash can cause injury or even death to personnel along with tremendous equipment damage that results in substantial financial consequences. Reducing the occurrence of these incidents, as well as containing the effects of an arc flash event once it occurs, is essential to reducing risk to personnel.

With over 100 years of experience and a commitment to innovation, Schneider Electric has developed a full line of arc-resistant solutions to create an advanced level of protection for personnel in the work environment.

ArcBlok Technology:
An arc extinguishing solution

The Power-Zone™ 4 Arc Resistant Low Voltage Switchgear with ArcBlok™ technology by Schneider Electric features the proven reliability and durability of Masterpact™ NW power circuit breakers with a new, unique combination of arc flash mitigation features and advanced arc flash containment. Masterpact NW with ArcBlok technology helps quench and transfer an arc before it propagates inside the breaker compartment. Our unique technology provides a superior level of protection from the consequences of internal arcing faults without increasing the footprint of the equipment.

Arc flash energy containment occurs on the front, back, and sides, even when the instrument compartment door is open, complying with ANSI Type 2B rating. This simple, stand-alone circuit breaker solution is a space-saving design that offers an additional level of protection for personnel. Plus, Power-Zone 4 Switchgear with ArcBlok technology features simple installation and reduced maintenance and inspection requirements.

Power-Zone 4 Arc Resistant Low Voltage Switchgear with ArcBlok technology

- ☑ **Best-in-class arc fault containment 100 kAIR at 635 Vac**
- ☑ **UL® tested and certified to ANSI Type 2B**
- ☑ **ArcBlok circuit breakers extinguish the arc in 5 to 15 msec when arc is in the rear of the breaker cell**
- ☑ **The ArcBlok design extinguishes the arc at the rear of the circuit breaker cell reducing the damage and eliminating the need for special seals on the cell door**
- ☑ **Insulated barriers provide phase-to-phase and phase-to-ground isolation**
- ☑ **ArcBlok offers positive seal and phase-to-phase and phase-to-ground isolation in all three racking positions (connected, test, and disconnect)***

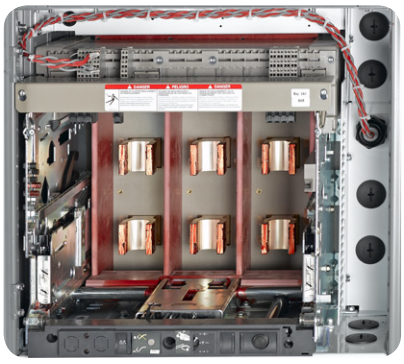
**Door should remain closed and latched to maintain arc containment rating*

ANSI Type 2B enclosure rating — Arcing does not cause holes in the freely accessible front, sides, and rear of the enclosure or in the walls isolating the low voltage control or instrument compartment(s).

Advanced technology

Cluster shields

Designed to prevent arcing events by enclosing the phases at the primary connections of the breaker and cradle. Cluster shields provide additional extinguishing if an arcing event occurs inside the circuit breaker compartment. The shields help minimize equipment damage.



Cradle barriers

Corresponding and overlapping shields within the cradle provide phase-to-phase and phase-to-ground isolation in the connect, test, and disconnect positions with doors closed and latched.

Arc ventilation

The ArcBlok circuit breaker is engineered for maximum heat and arc transfer utilizing its chimney-like design.

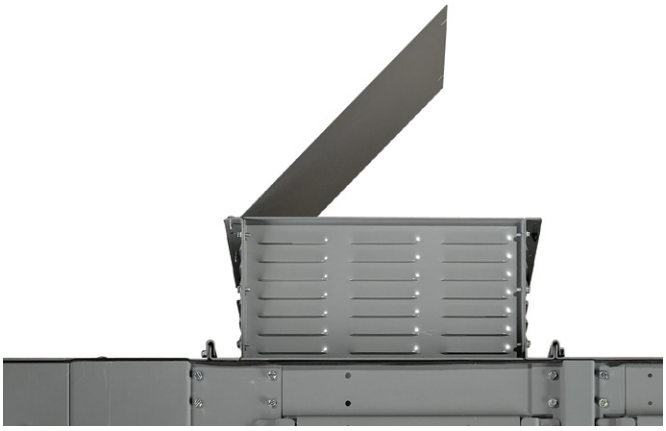
Power-Zone 4: Enhanced arc flash containing features

Enhanced internal design redirects arc flash gas and plasma away from personnel. The roof flaps, floor, and internal baffle assembly operate cohesively to provide equipment ventilation and improved arc flash protection.

Exhaust designs

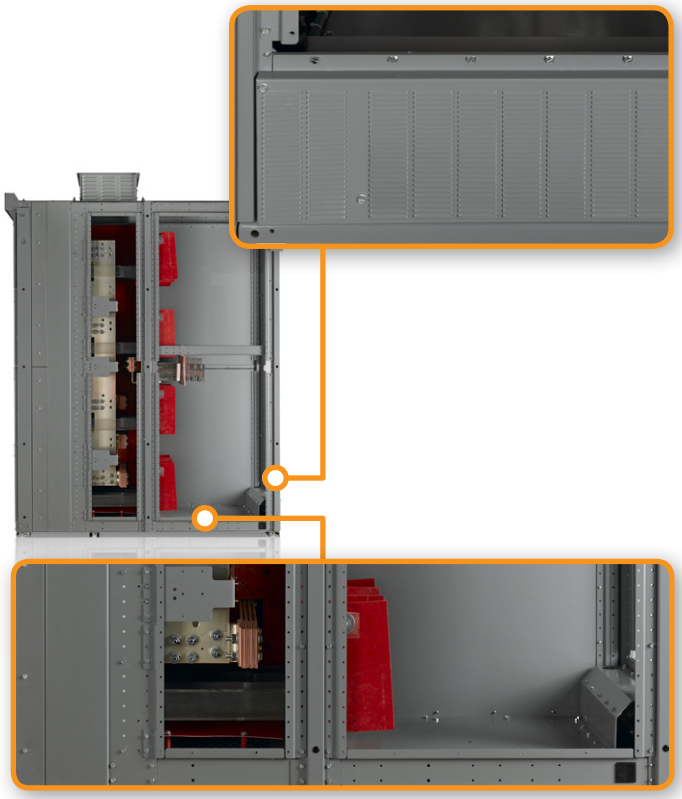
Roof baffles and optional plenum

Engineered and designed to provide advanced pressure relief through the top of the gear, channeling dangerous energy away from personnel. The roof flaps open to relieve pressure as plasma is channeled up and out the top of the equipment.

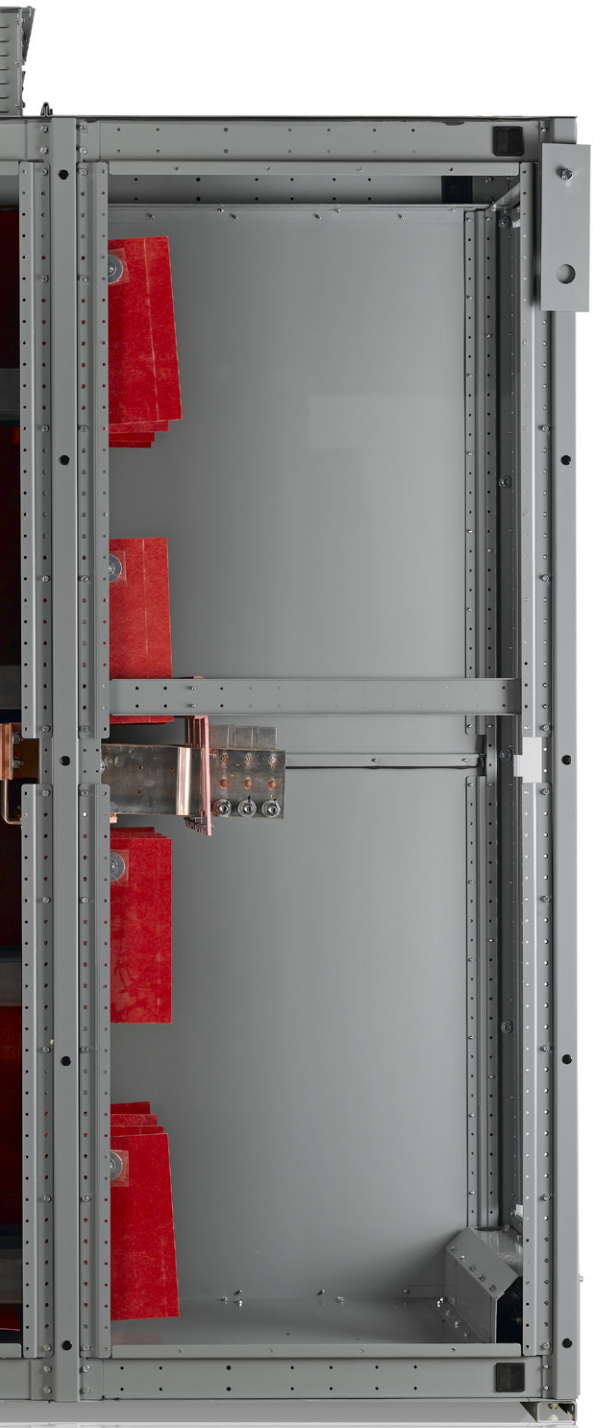


Enhanced ventilation

The innovative ventilation system allows for maximum heat transfer. The rear intake vents, combined with the spring-loaded floor dampener, channels air into the gear, optimizing the equipment's natural convection. The spring-loaded floor damper slams shut during an arcing event, creating a positive seal.



+ Power-Zone 4 with integrated arc flash containment features



Standard features

- Industry-leading withstand rating of 100 kA @ 635 Vac
- ArcBlok technology for superior arc flash protection
- NEMA® Type 1 enclosure with ANSI Type 2B rating
- 60" deep and 22" wide design allows for the smallest footprint in the industry
- Complete line of Masterpact NW breakers available up to and including 5,000 A
- Field-interchangeable Micrologic™ trip units
- Bus ratings up to and including 5,000 A
- Enhanced ventilation system optimizes heat transfer

Optional features

- Insulated copper bus
- Plenums
- Zone Selective Interlocking system
- High resistance grounding
- Energy reduction maintenance switch
- Breaker remote racking
- Overhead breaker lifter

Standards

- UL certified and tested in accordance with ANSI C37.20.7
- ANSI C37.20.1, ANSI C37.51
- Certified to Canadian Standard C22.2, No. 31
- UL 1558
- ANSI C37.13, ANSI C37.16
- ANSI C37.17, ANSI C37.50
- UL 1066

Sample guide form specification for Power-Zone 4 Arc Resistant Low Voltage Switchgear

1. **This section supplements Section 26.23.00.11 AR — Low Voltage Switchgear, unless otherwise noted.**

2. **Comply with requirements of latest revision of ANSI/IEEE C37.20.7 — Guide for Testing Metal-Enclosed Switchgear Rated up to 38 kV for Internal Arcing Faults.**

3. **Arc Resistant Electrical Ratings:**
   - a. Nominal AC System Voltage: [600 Vac] [480 Vac] [240 Vac] [208 Vac]
   - b. Maximum Design Voltage: 635 Vac
   - c. Maximum Short-Circuit Current: 100 kAIR (@ 635 Vac)
   - d. ANSI Type 2B rating
   - e. Internal Arcing Short-Circuit Current: [100 Vac] [65 Vac]
   - f. Arcing Duration: 500 msec

4. **Arc Resistant General Construction:**
   - a. Indoor NEMA 1 Enclosure
   - b. Baffle Compartment Assembly [Plenum]
   - c. Removable Rear Cover Panels Secured with Captive Screws [Hinged Doors]
   - d. ArcBlok Technology
   - e. Field-Interchangeable Micrologic Trip Units

Take the next step, advance the level of safety at your facility with the Power-Zone 4 Arc Resistant Switchgear.

Whatever your requirements for switchgear are, we have a solution to meet your needs. For assistance or more information, contact **www.schneider-electric.com/us** or call at **888-778-2733**.

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Document Number 6000BR1206

August 2013