



THURSDAY, NOVEMBER 25, 2021

NEMA Enclosed Switches

A closer look at switches

Shady Zaklama – Product Marketing Manager – Smart Power - Electrification



Spec-Setter Safety Switches

What is it?

- **Safety** switches provide quick, convenient disconnection and reconnection of electrical load by means of an external operator handle
- Equipment occasionally needs to be disconnected for reasons such as repair, maintenance or emergency stops
- As per NEC article 430.112C, a safety switch must be in line of sight and no more than 50 feet from the equipment that it controls

General Duty: designed for residential or light commercial applications where duty is not severe – for 240Vac & 250Vdc maximum.

Heavy Duty: designed for applications where safety, high performance and continuity of service are essential – for applications up to 600Vac and 250Vdc maximum and where usage could be up to 10,000 operations.

Spec-Setter Safety Switches

Certifications

- **UL** Listed (UL 98 Enclosed and Dead-Front Switches).
- **cUL** Listed (**CSA** 22.2 No. 4-04).
- **NFPA 70** (National Fire Protection Association/National Electrical Code).
- **NEMA KS1** (Enclosed and Miscellaneous Distribution Equipment Switches)



Other Qualifications

- Seismic Certified
- Series Rated

Spec-Setter Safety Switches

Applications where safety, high performance and continuity of service are essential

Market segment

- **Residential and light commercial**
(apartments, banks, restaurants, small shopping centers, self-storage facilities, small office buildings)
- **Commercial**
(schools, shopping centers, malls, office buildings, restaurants, grocery stores, skyscrapers, stadiums, hospitals, airports)
- **Industrial**
(manufacturing plants, solar and wind farms, refineries, water/wastewater, pulp & paper, process manufacturing)



A comprehensive offer of disconnect switches.

ABB Disconnect Switches

Enclosed

Open style

Safety Switches
[Spec-Setter]

Rotary
Switches

Non-
fusible

Non-
fusible,
change-
over
[OT_C]

Fusible

DC non-
fusible

General
Duty

Heavy
Duty

Double-
Throw

Emergency
Power

[eOT/NF/
FC/FJ]

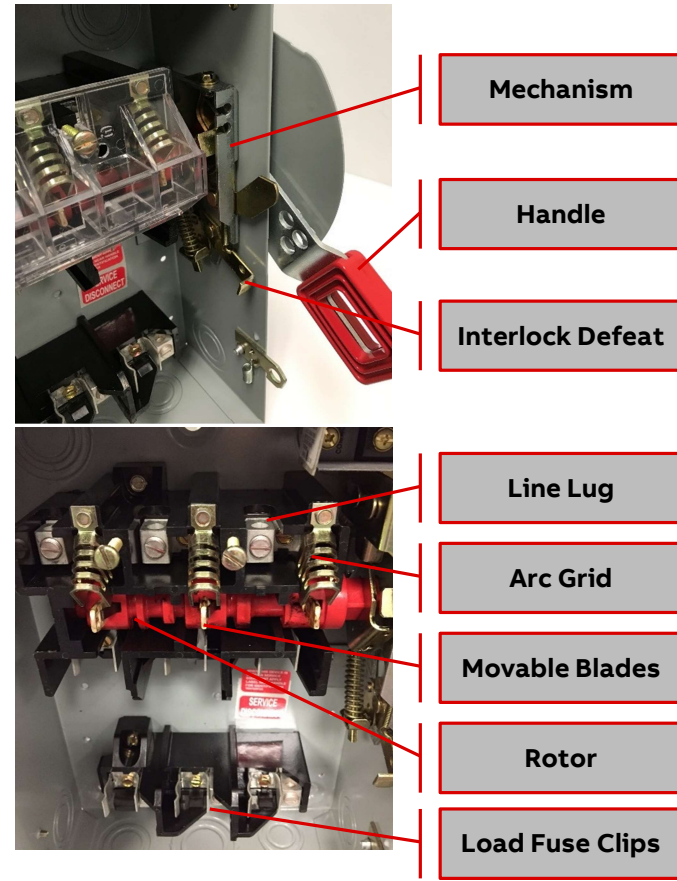
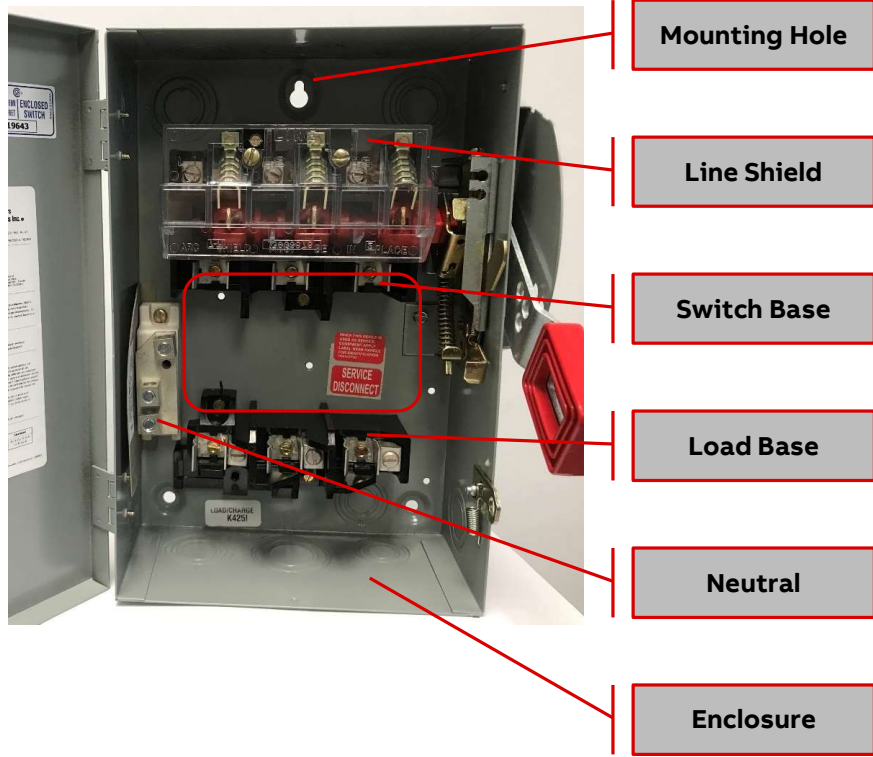
[OT]

[OS]

[OTDC]

Spec-Setter Safety Switches

Construction



Product Details

Rating Label

- Located on inside cover
- Ampere Rating
- Voltage Rating
- Horsepower Rating
- Withstand Rating
- NEMA Enclosure Rating
- SUSE Rating (Suitable for Use as Service Equipment)
- Lug Wire Range and Torque
- Accessories



GE Safety Switch

ENCLOSED SAFETY SWITCH ISSUE NO. AL-51

Catalog No: TGN3321 Model: 9 Amps: 30A Volts: 240Vac/250Vdc Freq: 50/60Hz
 Type 1, Indoor Enclosure Suitable for Use as Service Equipment

Horsepower Ratings

Volts/Phase	240V 1-Ph*	240V 3-Ph	250Vdc*
Std (Std Fuse)	3	7.1/2	5

* Use any two poles

Fuses and Short Circuit Information: This switch is suitable for use on a circuit capable of delivering not more than 10,000 RMS symmetrical amperes, 240Vac maximum, and not more than 10,000 amperes, 250Vdc, when protected by Class H or K fuses or on overcurrent device, rated 30A maximum. When used with Class J or R fuses or on overcurrent device, rated 30A maximum, this switch is suitable for use on a circuit delivering not more than 100,000 RMS symmetrical amperes, 240Vac maximum.

Terminals (Use 60° or 75°C Cu. or Al. Wire)
 Line and Load: #14-8 Cu, #12-8 Al. Tighten to 36-40 in-lbs.
 Aluminum wire can cause overheating. les cables d'aluminium peuvent entrainer une surchauffe. To connect aluminum wire, strip insulation without nicking wire. Wire brush and coat with anti-oxidant compound, such as Alnox or Penetrox A13. Insert conductor and tighten per torque specification.

Warning Instructions:
 Not suitable for use as service entrance in Canada.

 TURN OFF SWITCH: Before removing or installing fuses. TURN POWER OFF: ahead of switch before doing other work inside. Replace all parts. Install line shield on switch, and close cover before turning power ON.
 DANGER: Unless Class R fuses are used, this switch may present a risk of fire or personal injury if installed in circuits capable of delivering more than 10,000 RMS symmetrical amperes.
 CAUTION: Information regarding performance under unusual service conditions should be obtained from the GENERAL ELECTRIC COMPANY.
 Examples of unusual service conditions are:
 (1) Temperature above +50°C (+122°F) or below -30°C (-22°F).
 (2) Altitudes above 6600 feet.
 (3) Corrosive or explosive environments.
 (4) Undue vibrations, shock or tilting or unique operating duties.

Mises En Garde:
 Non convenable pour utilisation d'entrée de service selon le code électrique canadien, 1ere. Partie.
 DANGER- À moins que les fusibles installés dans cet interrupteur ne soient de Class R celui-ci peut présenter un risque d'incendie et de blessures s'il est branché à une source susceptible de débiter un courant symétrique de plus de 10,000A. Ouvrir l'interrupteur avant d'enlever ou de poser des fusibles.
 Couper l'alimentation en amont de l'interrupteur avant de procéder au travail dans ce boîtier. Remettre tous les éléments en place. Poser l'écran sur les bornes coté secteur. Refermer le couvercle avant de remettre sous tension.
 ATTENTION-S'adresser à la GENERAL ELECTRIC, en ce qui a trait aux caractéristiques en conditions d'utilisation inhabituelles telles que:
 (1) Température ambiante supérieure à +50°C (+122°F) ou inférieure à -30°C (-22°F).
 (2) Altitudes supérieure à 6,600 pi.
 (3) Présence d'agents corrosifs ou explosifs.
 (4) des Vibrations intenses, chocs ou inclinaison ou situation unique.

Replacement Parts and Accessories

Item	G.E. Catalog No.
Equipment Ground	TGL1

Equipment Ground

Wire Sizes

Type	Solid	Stranded
Large Holes	14-8 Cu	10-4 Cu, 6-4 Al
Small Holes	14-8 Cu, 12-8 Al	12-8 Cu-Al

331A3225P19 Rev 2
PLANT: MORRISTOWN
ASSEMBLED IN USA

General Duty Safety Switches

For residential and light commercial applications

Ratings

- 30-600A
- 240Vac, 250Vdc
- Fusible and non-fusible
- NEMA Ratings
 - Type 1 (indoor)
 - Type 3R (outdoor)
- 10,000 rms symmetrical
- 100,000 rms symmetrical when Class R fuses and fuse kits are installed, 30-200A

Features



60A/Fusible/3 Pole/240V/N1
TG4322

- ✓ 1 Highly visible ON/OFF label
 - ✓ 2 Highly visible, easy to grip red handle and accepts 1 padlock in the OFF position
 - ✓ 3 Direct-drive, quick-make, quick-break mechanism "snaps" contacts open and closed providing positive ON/OFF indication
 - 🔧 4 Unobstructed gutter
 - 🔧 5 Self-leveling, three-point mounting system
 - ✓ 6 Integral cover interlock
 - ✓ 7 Visible confirmation of plated blade contact positions
 - ✓ 8 Spring reinforced fuse clips assure reliable contact for cool operation. Suitable for Class H, K or R fuses, where applicable
- ✓ Safety 🔧 Ease of Installation and Maintenance

Heavy Duty Safety Switches

For commercial and industrial applications

Ratings

- 30-1200A
- 240Vac, 600Vac, 600Vdc
- Fusible and non-fusible
- NEMA Ratings:
 - Type 1 (indoor)
 - Type 3R (outdoor)
 - Type 4/4X (water and dust-tight, corrosion resistant)
 - Type 5/12 (drip and dust-tight)
- Viewing window option available up to 200A
- 200,000 rms symmetrical with Class R or J fuses, 30-600A
- 100,000 rms symmetrical with Class L fuses, 800-1200A

Features



200A/Fusible/3 Pole/600V/N3R
TH3364R

- ✓ 1 Highly visible ON/OFF label
 - ✓ 2 Donut handle ideal for hook stick operation and accepts 3 padlocks in the OFF position
 - ✓ 3 Direct-drive, quick-make, quick-break mechanism "snaps" contacts open and closed providing positive ON/OFF indication
 - ✓ 4 Wide, unobstructed gutter
 - 🔧 5 Self-leveling, three-point mounting system
 - 🔧 6 Coin-proof, defeatable interlock
 - ✓ 7 Clear line shield allows visual confirmation of plated blade positions while helping to protect against accidental contact with live parts
 - ✓ 8 Spring reinforced fuse clips assure reliable contact for cool operation. Suitable for Class H, K, J or R fuses, where applicable
- ✓ Safety 🔧 Ease of Installation and Maintenance

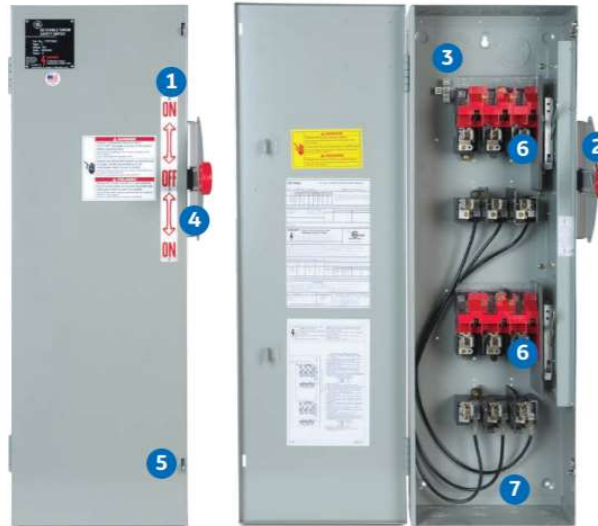
Double Throw Safety Switches

For switching one load between two different power sources

Ratings

- 30-1200A
- 600Vac, 600Vdc
- Fusible and non-fusible
- NEMA Ratings:
 - Type 1 (indoor)
 - Type 3R (outdoor)
 - Type 4/4X (water and dust-tight, corrosion resistant)
- 200,000 rms symmetrical with Class R or J fuses

Features



60A/Fusible/3 Pole/600V/N1
TDT3362

- ✓ 1 Highly visible ON/OFF label
 - ✓ 2 Bright red handle
 - 🔧 3 Self-leveling three point mounting pattern
 - ✓ 4 Lockable three position (ON-OFF-ON) handle
 - ✓ 5 Lockable cover latch
 - ✓ 6 Quick-make, quick-break mechanisms 30-1200 amps
 - 🔧 7 Ample wire bending space
 - 🔧 8 Use of common fuses in stacked design; fewer fuses required and reduced enclosure size: 600-1200A (not displayed)
- ✓ Safety 🔧 Ease of Installation and Maintenance

Emergency Power Transfer Switches

To permit the connection of power from a standby generator or other emergency source of electricity










Ratings

- 100-200A for 120/240V three-wire systems
- 200 amps for 240V four-wire systems
- NEMA Type 3R (outdoor)
- Can be locked in either the ON or OFF position

Features



100A/Non-Fusible/2 Pole/120/240V/N3R
TC10323R

-  1 Wide range of interchangeable rain-tight conduit hubs available
-  2 Plated copper current-carrying parts increase longevity and performance
-  3 Bonding strap can be used to ground factory installed neutral for service entrance applications
-  4 Ample wiring space
-  5 Positive make and break is provided by fiber loop straps between knife blade contacts and one-piece operating yoke
-  6 Lockable three-position (ON-OFF-ON) handle
-  7 Galvanized steel enclosure with drip shield
-  8 5 Single barrel lug that accepts one or two cables per phase.
-  Safety
-  Ease of Installation and Maintenance

Latest safety switches enhancements

Painted red



- Factory painted red
- 3 General Duty Switches
 - TG3221PR 30A 2pole, 3wire, indoor
 - TG4321PR 30A 3pole, 4wire, indoor
 - TG4322PR 60A 3pole, 4wire, indoor

Clear line shield



- Can be upgraded from fiber to clear line shield (general duty).
- Allows visual verification of blade position.
- Enhances the “safety” of our safety switches.

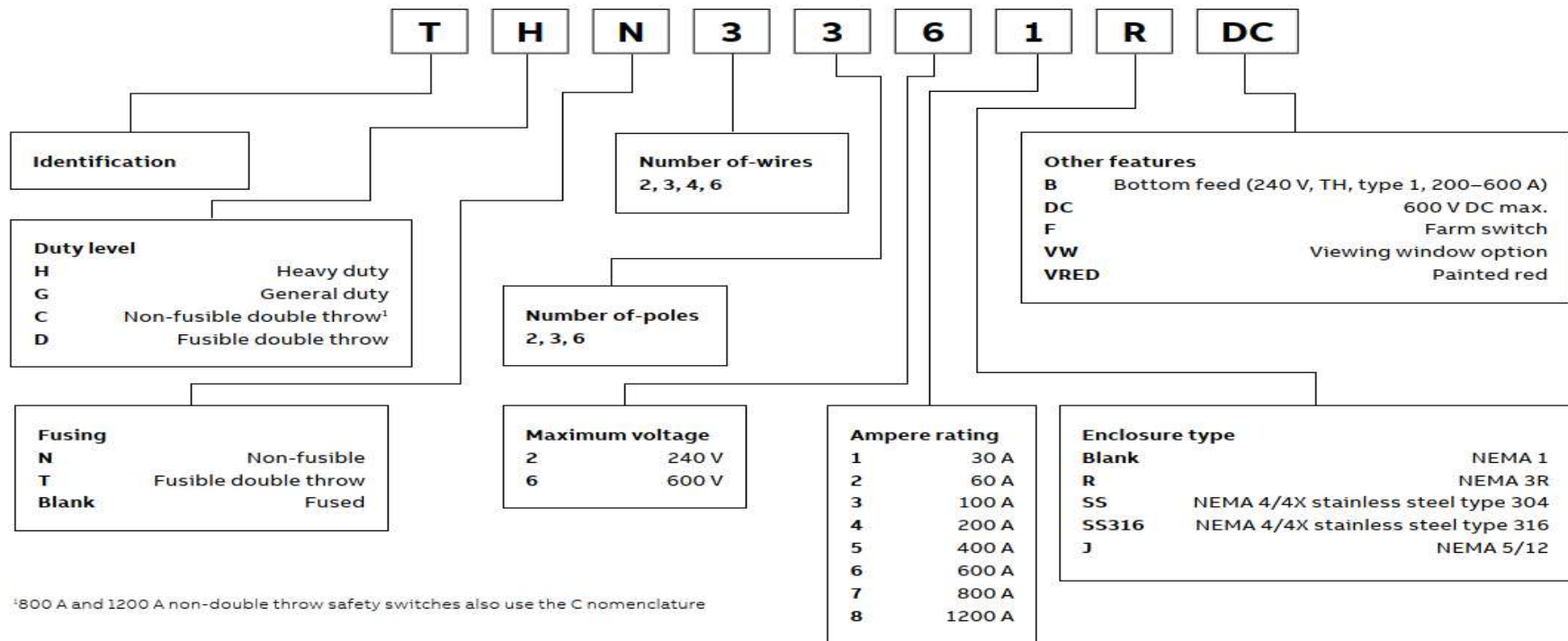
Viewing window



- Bigger window helps deliver extra safety.
- Visually verify open contacts without the need to open the door to check blades and fuses.

Spec-Setter safety switches

Product number structure



Disconnect Switches

Resources

ABB Website


ABB HOME + OFFERINGS + LOW VOLTAGE PRODUCTS + PRODUCTS + ENCLOSED SWITCHES + NEMA SAFETY SWITCHES GLOBAL SITE

NEMA safety switches

Options for residential, commercial, industrial and rural/farm applications

The Spec-Setter™ safety switch line encompasses general-duty, heavy-duty, double-throw and emergency-power transfer versions to suit a wide range of applications.

All Spec-Setter safety switches are UL listed and designed for safety, ease of installation and long, reliable service life. In addition, all include options for rugged outdoor enclosures (Type 3R and/or Type 4/4X) designed to withstand the elements.



Spec-Setter™ heavy-duty safety switches	Spec-Setter™ general-duty safety switches	Spec-Setter™ double-throw safety switches	Spec-Setter™ emergency-power transfer safety switches
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empower Product Configurator

Quantity: 1 | Marks (20 characters max): | Catalog Number: | Item Summary

Safety Switch Rotary Switch

UL CSA/CUL Service Entrance Made In America

System Voltage: 240V AC Neutral Required Rating Type: Fully Series


Amperage: 30 Poles: 3 Enclosure: NEMA 1 (Indoor)

Fusing: Fusible Duty: Heavy Options: None

Accessories

<input type="checkbox"/> Neutral Kit		
<input checked="" type="checkbox"/> Equipment Ground Kit	TGL1, Equipment Ground Kit, (4)14-8 AWG C	\$14.00
<input type="checkbox"/> Auxiliary Contacts		
<input type="checkbox"/> Copper Kit		
<input type="checkbox"/> Fuse Kit Only		
<input type="checkbox"/> Fuses and Fuse Kit		


Catalog Number: TH4321 | List Price (Each): \$235.00 | List Price (Extended): \$14.00 | Total List Price: \$230.00




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Enclosed Motor Control with Tmax® XT
ABB is making some exciting changes to NEMA enclosed starters! The latest technology available in a package you know and trust.
February 16, 2021



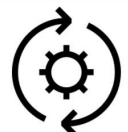
Modular padmount switchgear fits the bill for facility expansion
Eaton and Vantage Valley Electric Assoc. engineers provide collaborative solution.
Not just another picture!
February 16, 2021




A-Series Pro-Stock Main Breaker Kits for lighting panelboards
Limited Phase Announcement
Important details, and dates regarding the change to limited phase.
February 16, 2021




A Line Contactors
Obsolete Phase Announcement
Important details and dates regarding the change to Obsolete phase.
February 16, 2021




DH Busway UL87
Obsolete phase announcement
Important details regarding the change to obsolete phase.
February 16, 2021



Surion Manual Motor Starters
Obsolete Phase Announcement
Important details and dates regarding the change to Obsolete phase.
February 16, 2021



LV Dry Type Transformers | Distributors
Discover all the benefits you can obtain by selling our LV Dry Type Transformers.
Watch the video and contact us for more information.
February 15, 2021

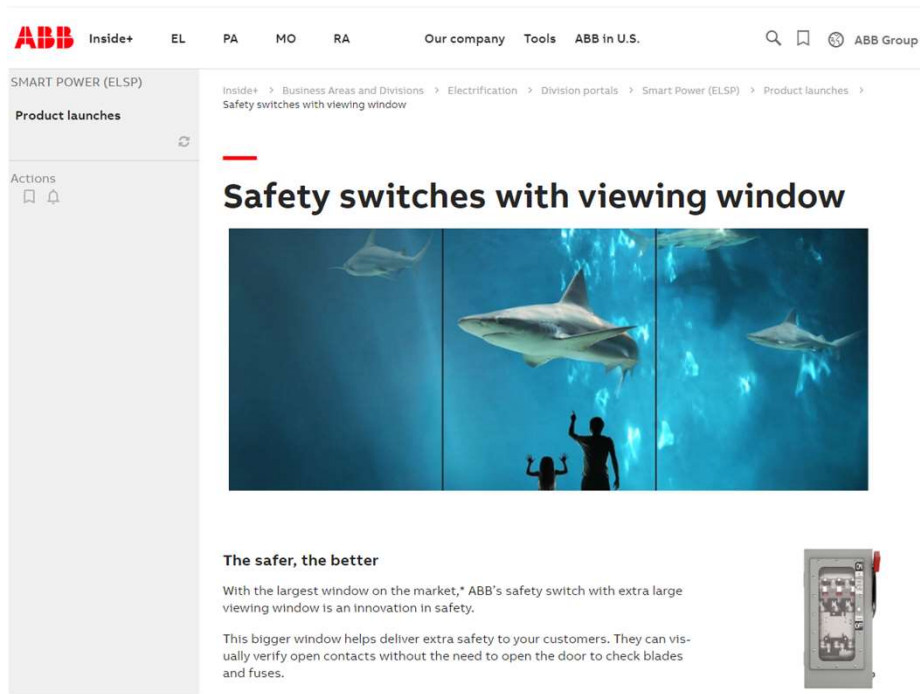


E9000 and E9000 Arc Res LV Motor Control Centers
Classic phase announcement
Important details on the change to classic phase.
February 16, 2021

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Heavy Duty Safety Switches

Viewing Windows – launched May 2021



The screenshot shows a web page with the ABB logo and navigation menu at the top. The main content area features a large image of a shark tank with people looking through a viewing window. Below the image is the heading 'Safety switches with viewing window' and a sub-heading 'The safer, the better'. The text describes the innovation of a large viewing window for safety switches, allowing users to visually verify open contacts without opening the door. A small image of the safety switch is shown at the bottom right of the text area.

ABB Inside+ EL PA MO RA Our company Tools ABB in U.S. 🔍 📄 🌐 ABB Group

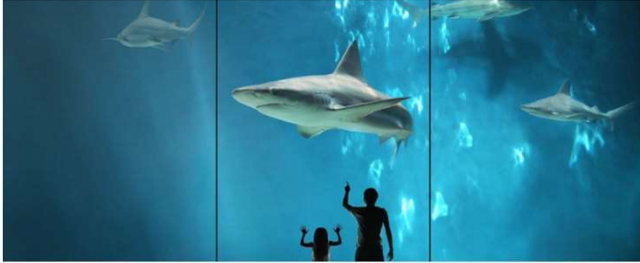
SMART POWER (ELSP)

Product launches 🔄

Actions 📄 🔔

Inside+ > Business Areas and Divisions > Electrification > Division portals > Smart Power (ELSP) > Product launches > Safety switches with viewing window

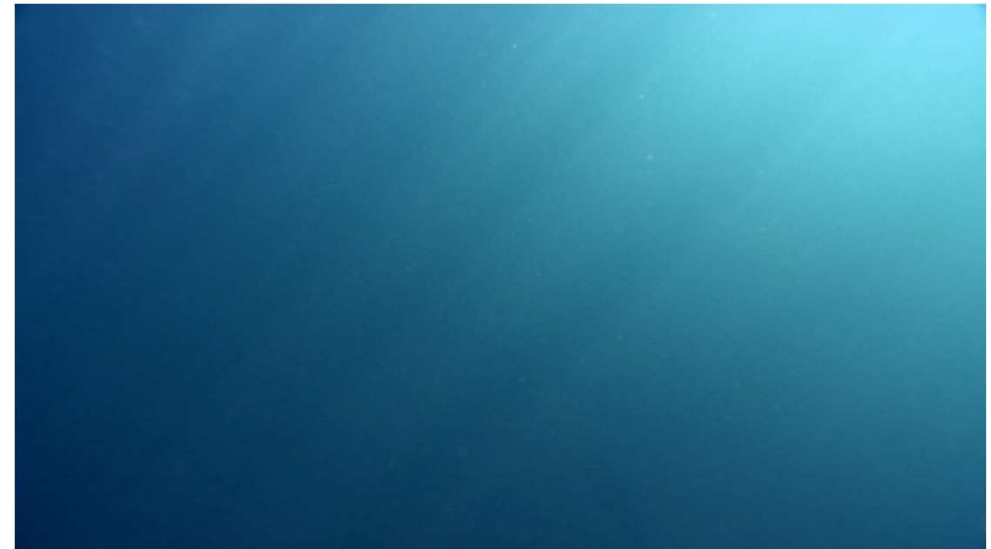

Safety switches with viewing window



The safer, the better

With the largest window on the market,* ABB's safety switch with extra large viewing window is an innovation in safety.

This bigger window helps deliver extra safety to your customers. They can visually verify open contacts without the need to open the door to check blades and fuses.



ABB