

# Safety Alert: Square D Safety Switches

## Be Sure to Inspect Your Installed Units for Defects

Schneider Electric has issued an offer safety alert on the Square D safety switch due to electrical shock hazard because the power can stay on when the safety switch handle is in the "OFF" position. It is recommended that you test installed units for defect. If you have a defective unit, you can complete an [online form](#) for reimbursement.



**Product Recalled:** Square D brand General Duty 30 & 60A, 120/240-volt, 2-phase and 3-phase NEMA 3R Safety Switches.

**Impacted Catalog Numbers:** DU222RB, DU222RBUP, DU321RB, DU321RBUP, DU322RB, DU322RBUP, D211NRB, D211NRBCP, D221NRB, D221NRBCP, D221NRBUP, D321NRB, D321NRBCP, D321NRBUP, DU221RB, DU221RBUP, CD321NRB, DU321RBCP, DU322RBCP

**Description:** The switches are a dark gray metal box with a black handle on the side that can be moved to an "ON" or "OFF" position. The "OFF" position is designed to shut off the flow of electricity. The switches may be used in or around commercial buildings, outbuildings, apartments and homes. They measure about 10 inches by 7 inches by 4 inches. Brand name "Square D", the ampere of the safety switch and the 120/240-volt or 240-volt marking is printed on a label on the front of the safety switch. **The recalled switches were manufactured between January 1, 2014 through January 18, 2018** and have date codes 1401 through 1803. The date codes are in the YYWWW format (example: 1401 = year 2014, week 1). The date code of the product can only be found on the inside of the cover and is not accessible if the product is installed and in-service.

[Download the Safety Inspection Procedures](#)

[Complete the Safety Inspection Form](#)

*Square D® Safety Switches*

Industry-Leading  
Performance and  
Reliability



# Square D® Safety Switches

*Setting the standard for performance, quality and reliability in today's commercial and industrial applications*



*First introduced in 1907, Square D safety switches have a long history of leadership in safety and performance. Since then, we have pioneered many innovations to help maximize the lifetime value of our safety switches.*

*Safety switches play a crucial role in today's commercial and industrial settings. They function by isolating power in daily activities and providing an effective way to interrupt power in an emergency. Two primary applications for safety switches include as a lockout on sight disconnect and as a circuit isolation device.*

*Square D safety switches are designed to outperform all other switches in a wide range of demanding applications.*

## Key Customer Applications

	Sight Disconnects for Motors (OSHA Compliance)	Service Entrance	Branch Circuit Protection
Industrial Facilities	X		X
Retail Construction	X	X	X
Water/Waste Water	X	X	X
Data Centers	X		X
Automotive	X		X
Packaging	X		X
Pharmaceutical, Food & Beverage	X		X
Commercial OEM	X		X

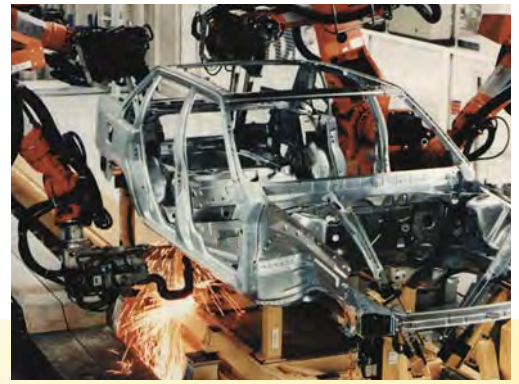
# Performance

## Three Times the Life – Three Times the Value

The performance of safety switches is important to the safe and profitable operation of many industrial settings. In addition, requirements from organizations such as the Occupational Safety and Health Administration (OSHA) have increased the use of safety switches in many commercial and industrial facilities.

Based on NEMA KS-1 life test requirements, in lock out/tag out applications where a switch is operated just once per hour, 24 hours a day, seven days a week, the useful life of the switch is exceeded in less than two years. For switches in these high-use applications, durability is key.

Square D safety switches provide significantly higher levels of mechanical endurance, than NEMA KS-1 requires. This translates to improved reliability in a production environment. In fact, the standard for the design life of Square D F Series safety switches is a minimum of three times the NEMA requirement. No competitor comes close to the performance offered by Square D safety switches.



### Potential Cost Avoidance Due to Square D Switch Life

Operations of switch/ 8-hour shift	Ops/yr. in 24/7 environment	Life of Square D switch in years	Life of Competitive switch in years*	Cost avoidance by using Square D*
1	1095	45.7	13.7	\$ 165.00
2	2190	22.8	6.8	\$ 330.00
3	3285	15.2	4.6	\$ 495.00
4	4380	11.4	3.4	\$ 660.00
5	5475	9.1	2.7	\$ 825.00

*\*Does not include cost of lost productivity. Switch cost replacement; labor = 2 hr. @ \$35/hr., cost of switch @ \$95. Maximum useable life of switch assumed to be 20 years. Life determination based on 50,000 operations for Square D F Series 30A and NEMA for competition*

## Designed for the Best Performance in the Industry

A key performance benefit of the Square D safety switch is its ability to break load. A locked motor can draw six to eight times motor full-load current. In an emergency situation, it's important to have a switch with enhanced load break capability.

It all starts with blade and jaw switch construction — a design element unique to Square D brand products. Blade and jaw switches are ideally suited for the management of heavy motor loads and arc interruption.



# Quality

## Blade and Jaw Construction

Compare the features of Square D safety switches with the competition and you'll find there really is no comparison. Visible blades are an important feature and they must be visible in real-world conditions. Our switch blades are easily visible, even in the less than ideal lighting conditions where electrical equipment is often installed.

This provides an added level of performance, allowing users to visually verify that the downstream circuit is de-energized. An optional view window adds another degree of safety through visual verification of switch position without the need to open the door.

In addition, the design of the Square D safety switch includes an oversized arc suppressor, a key feature in the ability of the switch to break the load by effectively attenuating the arc for a clean interruption.

## Designed for Long-Term Durability

Rugged construction and corrosion protection provide the industry's longest lasting switches. Galvannealed steel is featured in all single-throw Type 3R and 12 enclosures, offering superior corrosion protection.

One feature that sets Square D F Series safety switches apart are NEMA 4X seam welded enclosures. This design element helps to extend equipment life by providing excellent environmental and corrosion protection without the use of a silicone sealer, which can be incompatible with some manufacturing processes.

Square D safety switches are also built with performance-enhancing components. Square D safety switches feature more copper than other switches available on the market today. This larger amount of copper is one of the reasons Square D safety switches have lower operating temperatures. Managing temperatures inside the switch is essential to providing greater service life.

Heat is not the only factor that impacts switch life. By enclosing the operating mechanism, the design of Square D safety switches reduces the amount of dust and other contaminants that shorten the mechanism's operating life.

## Efficient Installation

Our time-saving design features make installation quick and easy. Square D safety switches feature quick-release cover latches, which are easier to operate than screw-fasteners. On NEMA 4X and NEMA 12 switches, this design feature ensures a better gasket seal — a critical feature in adverse operating conditions — than is available with designs that rely on screw-fastened covers.

Another key feature designed to improve ease of installation is tangential knockouts, which allow easier installation of conduit, without the need for costly, time-consuming offsets and bends.

## A Full Range of Accessories

Square D safety switches feature a complete offering of accessories, available either factory installed or field installable. Factory-installed options include key interlocks, nameplates, push buttons and optional safety colors. Field-installable accessory options include neutral kit, ground lugs, electrical interlocks, class "R" fuse rejection kits, compression terminals and conduit hubs.



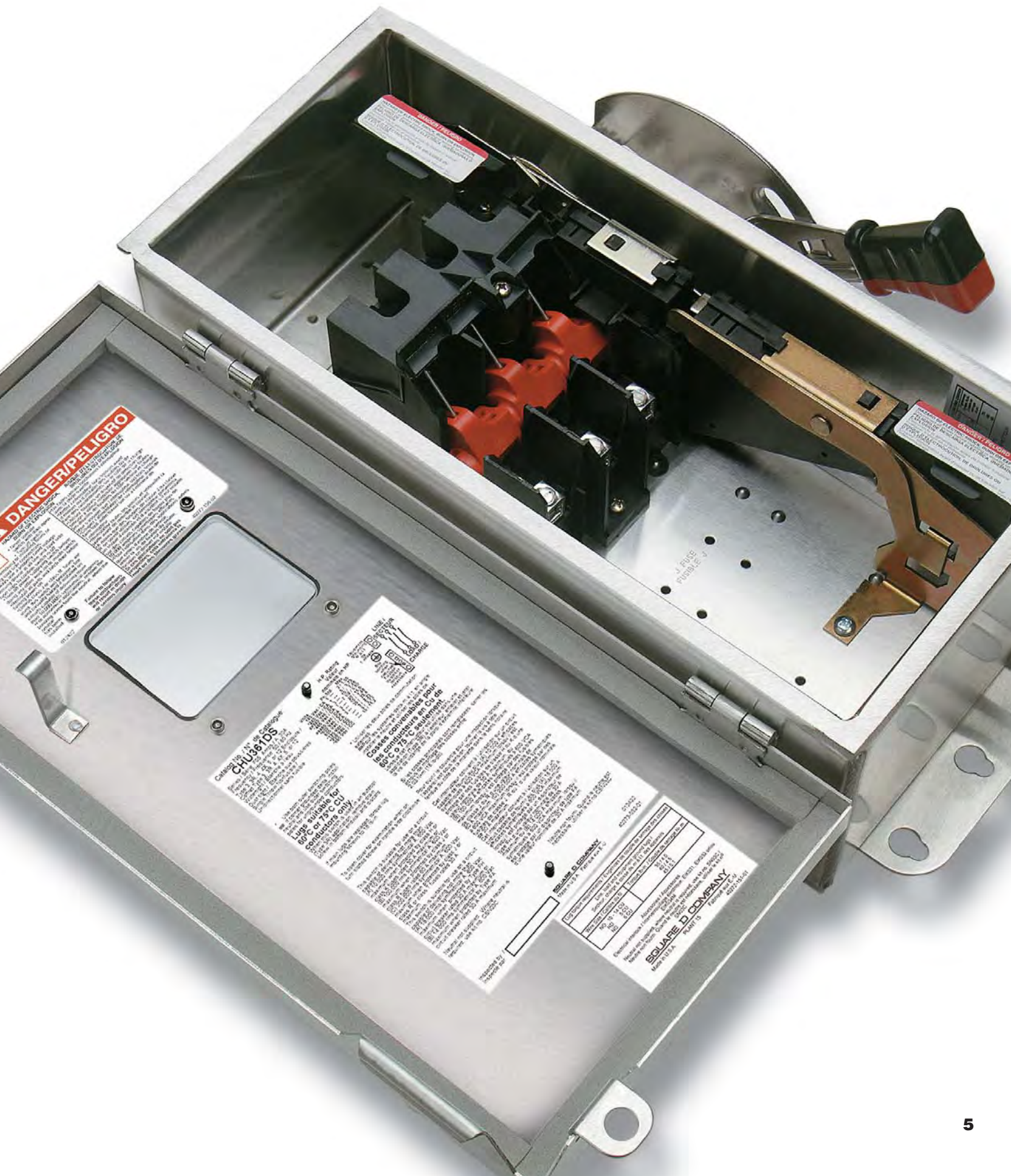
## Mechanical Endurance Requirements for UL, NEMA and F Series Switches

Switch Rating (Amperes)	Number of Operations			
	UL98	NEMA KS 1 General Duty	NEMA KS 1 Heavy Duty	F series Reqmts.
30 & 60	10,000	10,000	15,000	50,000
100	10,000	10,000	14,000	50,000
200	8,000	8,000	12,000	36,000*

\*Single-throw switches only

## Short Circuit Current Ratings

UL Listed Fuse Class	General Duty RMS Sym Amps	Heavy Duty RMS Sym Amps
Plug	10,000	NA
H	10,000	10,000
K	10,000	10,000
J	100,000	200,000
R	100,000	200,000
T	100,000	200,000
L	NA	200,000



**DANGER/PELIGRO**  
 WARNING: This enclosure contains live electrical parts. Do not touch any electrical parts. Do not open the enclosure unless you are qualified to do so. See the instructions for more information.

**CH UserIDS**  
 This enclosure is designed for use with the CH UserIDS circuit breaker. The enclosure is rated for use with a 100A, 125V, 1-pole circuit breaker. The enclosure is designed for use in a 19-inch rack. The enclosure is designed for use in a 19-inch rack. The enclosure is designed for use in a 19-inch rack.

<b>SQUARE D COMPANY</b> 1300 South Park Drive, Suite 500 Milwaukee, WI 53214-1000 Phone: 414.224.2000 Fax: 414.224.2001 E-mail: sales@square-d.com Website: www.square-d.com	
<b>Model</b> CH100-125V-1P	<b>Part Number</b> CH100-125V-1P
<b>Manufacturer</b> Square D Company	<b>Country of Origin</b> USA
<b>Material</b> Steel	<b>Finish</b> Powder Coat
<b>Weight</b> 10.0 lbs	<b>Dimensions</b> 19.0" x 10.0" x 10.0"

# Reliability

## Cost-Saving Maintenance

Advanced maintenance features extend switch life and reduce down time, saving both labor and material costs. After a Square D safety switch has outlasted all the others, the modular design allows the replacement of worn or damaged components. Downtime is kept to a minimum with the design that allows the complete replacement of all interior components.

Field-replaceable components such as interior line bases, load bases and mechanisms are available. In addition, these switches provide replaceable handles and lockplates that can be easily replaced if they are damaged or vandalized.

In addition Square D NEMA 4X and 12 safety switches come standard with fuse pullers, increasing the convenience and safety of maintenance. Fuse pullers are also field installable on certain models.

## Operation and Safety

Nothing is as important in the design of a switch as understanding how it will be used. To ensure Square D safety switches continue to meet the needs of commercial and industrial applications, products are engineered with the operational procedures and safe work practices of customers in mind.

## Superior Handle Design

The Square D F Series insulated switch handle is an industry exclusive. It is made from a high-strength polymer chosen for weather resistance, durability and impact strength.

The two-color position-indicating handle on heavy duty safety switches enhances operator safety by aiding in visual recognition of switch position from an angle or at a distance. The simple concept of having contrasting colors on the handle enhances the ability of the operator to determine quickly the position of the switch, even in low light conditions. In an emergency it is vital that switch position be accurately recognizable. Plus, an embossed ON/OFF marking is a permanent indication of the switch position and cannot be removed or vandalized.

## Tamper-Proof Enclosure

Resolving lock-out issues is a priority with major industrials. Square D F Series safety switches have an extruded lockplate feature that helps prevent tampering with lockout devices. Lockout opening is extruded to reduce the possibility of lockout devices being removed by non-authorized personnel.

With the use of the handle lockplate, the switch can be locked in the OFF position with up to three padlocks to comply with OSHA lockout requirements. The safety switch can also be modified so that the switch can be locked in the ON position, if required by the application.

Heavy-duty dual cover interlocks are key safety features on single throw and double throw heavy duty switches. Designed to prevent opening of the cover when the switch is ON or turning the switch ON when the cover is opened, this feature can be defeated by qualified personnel to allow them to perform any necessary testing.



# Catalog Numbering System for Safety Switches

## Typical Safety Switch Catalog Number

<b>D</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>N</b>	<b>RB</b>	<p><b>MISCELLANEOUS</b></p> <ul style="list-style-type: none"> <li>EI or EI2 = Factory-installed electrical interlock</li> <li>CLR = Class R fuse kits</li> <li>FP = Fuse pullers</li> <li>GL = Ground lugs</li> <li>SLC = Copper lugs</li> <li>LK = Compression lugs</li> <li>SPLO = Lock on</li> <li>VW = Viewing window</li> <li>NP = Phenolic legend plate</li> <li>KI = One key interlock</li> <li>KIKI = Two key interlocks</li> <li>WA = Appleton Powertite® interlocked receptacle</li> <li>WC = Crouse-Hinds ARKTITE® interlocked receptacle</li> <li>WH = HUBBELLOCK® interlocked receptacle</li> </ul>									
<p><b>ENCLOSURE</b></p> <table border="0"> <tr> <td>No Suffix = NEMA Type1</td> <td>CS = Cast aluminum</td> </tr> <tr> <td>A = NEMA Type 12K</td> <td>DX = NEMA Type 4X KRYDON – Crouse-Hinds</td> </tr> <tr> <td>AWK = NEMA Type 12 (without K.O.)</td> <td>R = NEMA Type 3R</td> </tr> <tr> <td>DS = NEMA Types 4, 4X, 5 (304 stainless steel)</td> <td>RB = NEMA Type 3R (Type B hub provision)</td> </tr> <tr> <td>SS = NEMA Types 4, 4X, 5 (316 stainless steel)</td> <td>DF = NEMA Type 4X fiberglass reinforced polyester</td> </tr> </table>						No Suffix = NEMA Type1	CS = Cast aluminum	A = NEMA Type 12K	DX = NEMA Type 4X KRYDON – Crouse-Hinds	AWK = NEMA Type 12 (without K.O.)	R = NEMA Type 3R	DS = NEMA Types 4, 4X, 5 (304 stainless steel)	RB = NEMA Type 3R (Type B hub provision)	SS = NEMA Types 4, 4X, 5 (316 stainless steel)	DF = NEMA Type 4X fiberglass reinforced polyester
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<p><b>NEUTRAL</b></p> <p>N = Factory-installed neutral (neutrals are field installable on most general duty and heavy duty safety switches)</p>															
<p><b>AMPERE RATING</b></p> <table border="0"> <tr> <td>1 = 30A</td> <td>3 = 100A</td> <td>5 = 400A</td> <td>7 = 800A</td> </tr> <tr> <td>2 = 60A</td> <td>4 = 200A</td> <td>6 = 600A</td> <td>8 = 1200A</td> </tr> </table>						1 = 30A	3 = 100A	5 = 400A	7 = 800A	2 = 60A	4 = 200A	6 = 600A	8 = 1200A		
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<p><b>VOLTAGE RATING</b></p> <p>1 = 120 Vac (Plug fuse)      2 = 240 Vac      6 = 600 Vac          For DC ratings, see the latest catalog listing.</p>															
<p><b>BLADES SWITCHABLE POLES</b></p> <p>1 = 1 poles                      2 = 2 poles                      3 = 3 poles                      4 = 4 poles                      6 = 6 poles</p>															
<p><b>TYPE OF SWITCH:</b></p> <table border="0"> <tr> <td style="vertical-align: top;"> <p><b>FUSIBLE</b></p> <ul style="list-style-type: none"> <li>L = Lite Duty</li> <li>D = General Duty</li> <li>H = Heavy Duty</li> <li>DT = Double Throw</li> </ul> </td> <td style="vertical-align: top;"> <p><b>NOT FUSIBLE</b></p> <ul style="list-style-type: none"> <li>DU = General Duty</li> <li>HU = Heavy Duty</li> <li>DTU = Double Throw</li> </ul> </td> </tr> </table>						<p><b>FUSIBLE</b></p> <ul style="list-style-type: none"> <li>L = Lite Duty</li> <li>D = General Duty</li> <li>H = Heavy Duty</li> <li>DT = Double Throw</li> </ul>	<p><b>NOT FUSIBLE</b></p> <ul style="list-style-type: none"> <li>DU = General Duty</li> <li>HU = Heavy Duty</li> <li>DTU = Double Throw</li> </ul>								
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For NEMA Types 7 & 9 construction, see the latest catalog listing



# The Most Complete Line of Switches in the Industry

	Amp Range	Vac Max	Vdc Max	Fusible	Enclosure Type
<b>General Duty</b>	30–800	240 Vac	—	Fusible and Not-Fusible	Type 1, 3R
<b>Heavy Duty</b>	30–1200	600 Vac	600 Vdc	Fusible and Not-Fusible	Type 1, 3R, 4, 4X Stainless Steel, 5, 12
<b>4 Pole Heavy Duty</b>	30–600	600 Vac	600 Vdc	Fusible and Not-Fusible	Type 1, 3R, 4X Stainless Steel, 12
<b>6 Pole Heavy Duty</b>	30–200	600 Vac	—	Fusible and Not-Fusible	Type 1, 3R, 4X Stainless Steel, 12
<b>Double Throw</b>	30–100A	600 Vac	250 Vdc	Fusible and Not-Fusible	Type 1, 3R, 4X Stainless Steel, 12
<b>Double Throw</b>	200–600	600 Vac	250 Vdc	Not-Fusible	Type 1, 3R, 4X Stainless Steel, 12
<b>Interlock Rec. Switches*</b>	30–100	600 Vac	250 Vdc	Fusible and Not-Fusible	Type 1, 3R, 4, 4X Stainless Steel, 5, 12
<b>Hazardous Location Switches</b>	60–225	600 Vac	250 Vdc	Not-Fusible	Type 7 and 9 – Divisions 1 and 2 of the following: Class 1, Groups C and D, Class II Groups E and F; on Class III, Hazardous Locations as defined in NEC Article 500

\*Appleton POWERITE, Crouse-Hinds ARKTITE and HUBBELLOCK receptacles

Type 1 (indoor), Type 3R (outdoor), Type 4, 4X, 5 (water and dust-tight, corrosion resistant) (cast aluminum, stainless steel, glass polyester or KRYDON), Type 12 (mill and foundry type)

Switches are UL Listed (UL 98 Enclosed Switches) and meet or exceed the NEMA KS1 standard

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