

The standard in *performance and durability*



Square D Safety Switches
F Series

Merlin Gerin

Modicon

Square D

Telemecanique

Schneider Electric Brands



SQUARE D
Schneider Electric

Get more with the world's Power & Control specialist.

**For Over
90 Years,
Safety Switches
Have Been
Our Business**

We've built that business by listening to our customers, following through on their requests, and delivering high quality products that meet their needs. Maybe that's why Square D is consistently ranked #1 in surveys for brand preference and is the overall market-share leader for the past twenty years. The explanation for this success is really very simple. In safety switches, we do as much as we can for our customers – then we do more.

General Duty



**General Duty
Safety Switches**
Designed for residential and light commercial applications where duty is not severe and economy is a prime consideration. They are suitable for use in service entrance applications when installed in accordance with applicable codes.

Heavy Duty



Heavy Duty Special Applications



**Heavy Duty
Safety Switches**
Designed for applications where safety, maximum performance and continuity of service is required. They are suitable for use in service entrance applications when installed in accordance with applicable codes.

No Other Switch Comes Close



In any value comparison, the Square D Safety Switch is the clear winner. The innovative design of this switch raises the standard for performance, quality and reliability. You've never seen a safety switch like this before. We've created a new approach to safety switch design and manufacture. In today's commercial and industrial applications, where value is measured daily, the Square D safety switch makes perfect sense. The designed features of our 30-200A safety switch address your need for value with:

- reliable performance
- long-term durability
- efficient installation
- maintenance features
- operation and safety features

Reliable Performance

The Square D F series operating mechanism exceeds by up to three times the number of no-load operations required by UL and NEMA.

- 1 Enhanced Long Life Mechanism** – no other switch on the market even comes close. Mechanical endurance exceeds by up to three times the number of no-load operations required by UL and NEMA standards. See Chart A below.
- 2 Blade and Jaw Switch Construction** – proven technology for management of heavy motor loads and arc interruption. Highest UL HP ratings allowed.
- 3 Fault Current Performance** – see Chart B below.

Long-term Durability

Rugged construction and corrosion protection provide the industry's longest lasting switches.

- 4 Galvannealed Steel** – in all single-throw Type 1, 3R & 12 enclosures – superior corrosion protection in all applications.
- 5 Electro-Deposition Dip-Paint Process** – provides further protection, insuring the long-term value of your investment.
- 6 NEMA 4x Seam Welded Enclosures** – Extends equipment life by providing excellent environmental and corrosion protection without the use of a silicone sealer.

Chart A:
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	15,000	50,000
200	8,000	8,000	12,000	36,000*

*Single-throw switches only

Chart B:
Short Circuit Current Withstand 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

7 Enclosed Operating Mechanism – reduces the amount of dust and other contaminants that can limit the life of the mechanism.

Efficient Installation

Our exclusive time-saving design features make installation quick and easy.

8 Quick Release Cover Latches – compare the easy operation of our cover latch with the operation and security of screw-fastened covers (not shown).

9 Arc Suppressor – effectively attenuates the arc resulting in quick, clean interruption. Fastened with one screw to facilitate installation.

10 Side Opening Door – facilitates installation. Standard on all enclosures including Type 3R.

11 Tangential Knock-outs – allow easier installation of conduit, without the need for costly, time-consuming offsets and bends (not shown).

12 Flexible Fuse Provisions – switches are furnished with fuse clip spacing for class “H”, “K” and “R” fuses. Class “J” fuses

can be applied by repositioning the load end fuse clip/terminal assembly to the position indicated in the switch (not shown).

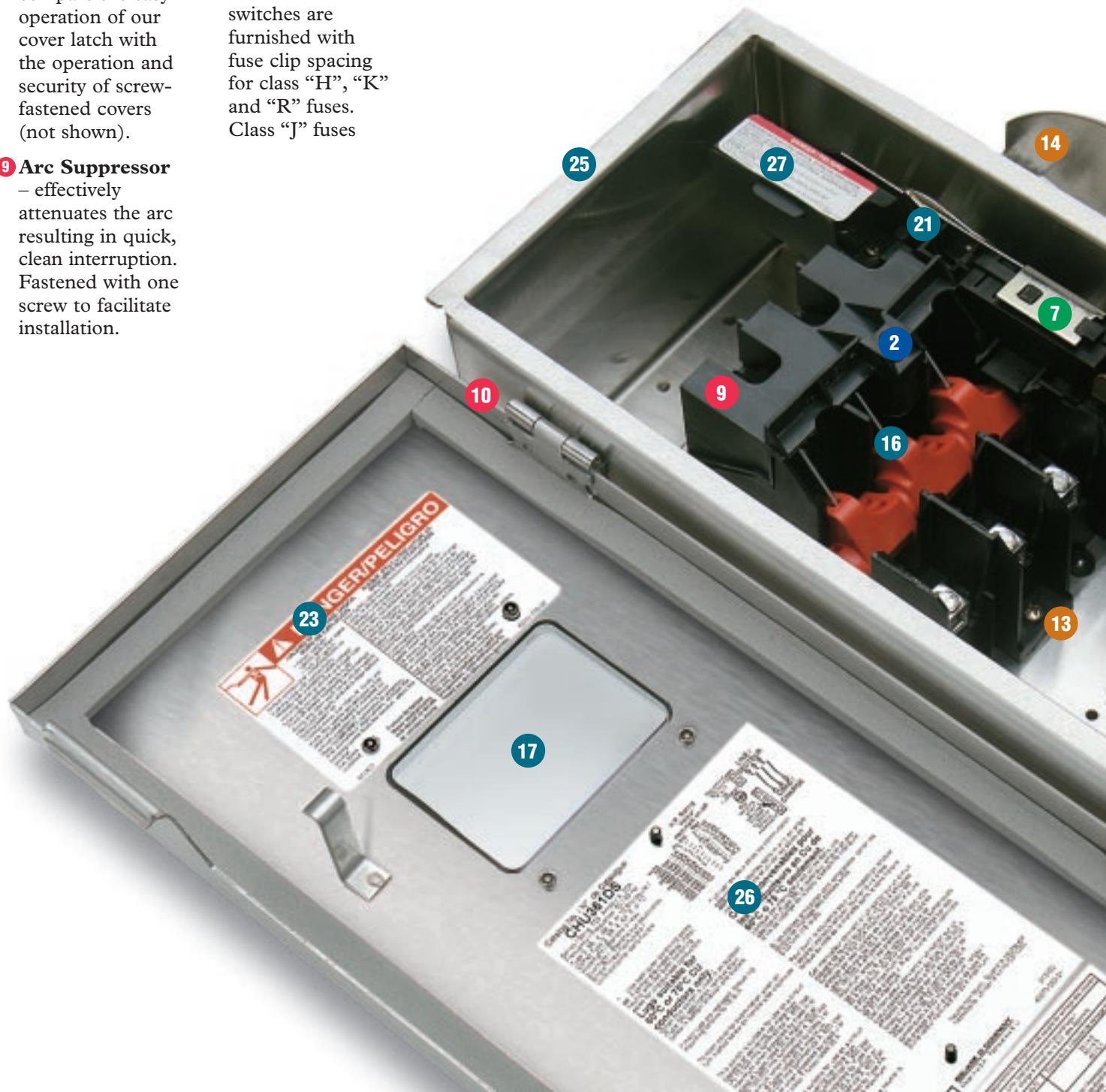
Cost-Saving Maintenance

Advanced maintenance features further extend switch life, reduce down-time, and save labor and material costs.

13 Field Replaceable Modular Components – the best part about the Square D safety switch is that after it has outlasted and outperformed all others, you can extend its superior performance even further because of its modular construction.

14 Replaceable Handle and Lockplate – easily replaced if damaged or vandalized.

15 Fuse Pullers – standard on stainless steel and Type 12 switches through 100A and can be easily added in the field on all others (not shown).



Operation and Safety

Industry-exclusive design features make Square D the right choice.

16 Visible Blades – a major safety plus. You can see the switch is off by the position of the blades.

17 View Window – adds an additional degree of safety through visual verification of switch position (optional).

18 Insulated Handle – enhances shock protection. Made

from a high strength polymer chosen for weather resistance, durability and impact strength.

19 Two Color Position Indicating Handle on Heavy Duty – enhances safety by aiding in visual recognition of switch position from an angle or at a distance. (Red for “ON”, Black for “OFF”).

20 Embossed ON/OFF Marking – permanent indication cannot be removed or vandalized.

21 Heavy Duty Dual Cover Interlock – on Heavy Duty switches (Single Pole and Double Pole). Prevents opening of the cover when the switch is ON or turning the switch ON when the cover is open. Can be defeated by qualified personnel to perform necessary testing.

22 Padlock Provisions

- Door Hasp – for securing access to the enclosure.
- Handle Lock-plate – facilitates locking the switch in the OFF position with up to three padlocks to comply with OSHA lockout requirements. The switch can also be modified so that the switch can be locked in the ON position if required by the application.

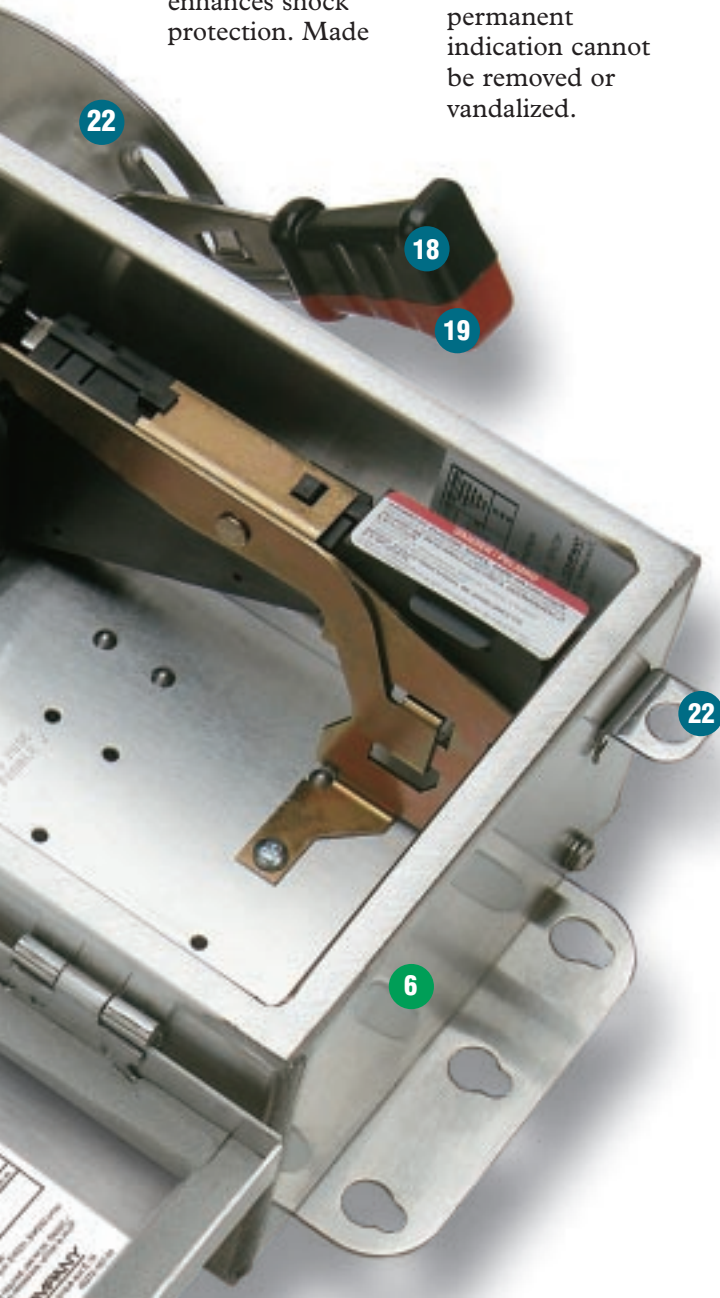
23 Safety Warning Label – provides instructions and acts as a reminder on the proper and safe use of the product.

24 A State-of-the-Art Ergonomic Design – although blade speed was increased to improve performance, the switch is noticeably quieter and requires less force to operate (not shown).

25 Rolled-Flange Opening on Nema 4x Switches – reduces the risk of cutting conductor insulation as well as installer’s hands.

26 Bilingual Labels and Wiring Diagrams in English and Spanish – facilitate safety where English is a second language.

27 A Full Range Of Accessories – field-installed accessory options include neutral kits, ground lugs, electrical interlocks, class “R” fuse rejection kits, compression terminals, and conduit hubs. Factory-installed options include key interlocks, nameplates, pushbuttons, fungus treatment and optional safety colors (not shown).




The Most Complete Line of Switches in the Industry

	Amp Range	Vac Max	Vdc Max	Fusible	Enclosure Type
General Duty	30-800	240 Vac	—	Fusible and Not-Fusible	Type1, 3R
Heavy Duty	30-1200	600 Vac	600 Vdc	Fusible and Not-Fusible	Type 1, 3R, 4, 4X, 5, 12
4 Pole Heavy Duty	30-600	600 Vac	600 Vdc	Fusible and Not-Fusible	Type 1, 3R, Stainless Steel, 12
6 Pole Heavy Duty	30-200	600 Vac	—	Fusible and Not-Fusible	Type 1, 3R, Stainless Steel, 12
Double Throw	30-100A	600 Vac	250 Vdc	Fusible and Not-Fusible	Type 1, 3R, Stainless Steel, 12
Double Throw	200-600	600 Vac	250 Vdc	Not-Fusible	Type 1, 3R, Stainless Steel, 12
Interlock Rec. Switches*	30-100	600 Vac	250 Vdc	Fusible and Not-Fusible	Type 1, 3R, 4, 4X, 5, 12
Hazardous Location Switches	60-225	600 Vac	250 Vdc	Not-Fusible	Used in Class I, Groups C and D, Type 7, and Class II, Groups E, F, and G, Type 9 or Class III, Type 9 as defined in NEC article 500

*Appleton POWERTITE, Crose-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 (JIC-Mill and Foundry type).

Switches are UL Listed (UL98 Enclosed Switches) and meet or exceed the NEMA KS1 standard.

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