



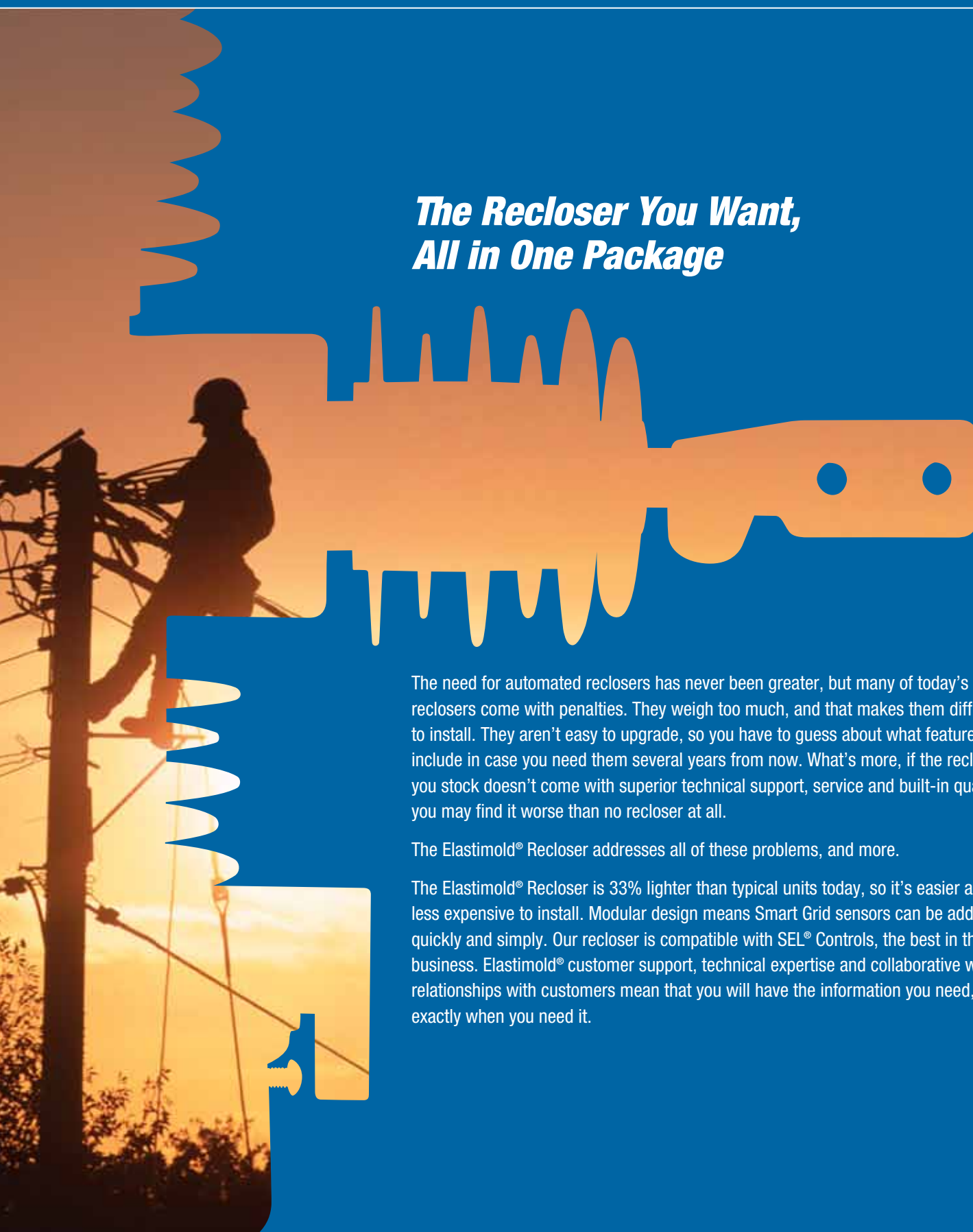
THE BEST UNDERGROUND IS NOW OVERHEAD

Introducing the new **Elastimold® Recloser**

Smart. Light. Flexible.

Thomas & Betts

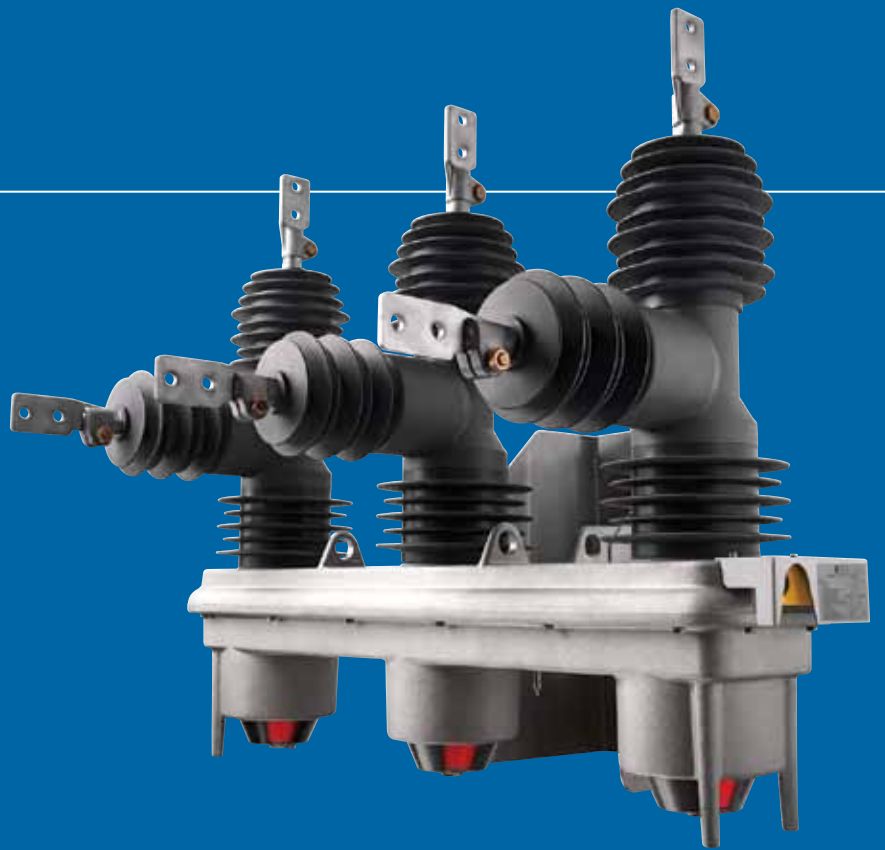
The Recloser You Want, All in One Package



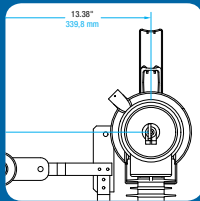
The need for automated reclosers has never been greater, but many of today's reclosers come with penalties. They weigh too much, and that makes them difficult to install. They aren't easy to upgrade, so you have to guess about what features to include in case you need them several years from now. What's more, if the recloser you stock doesn't come with superior technical support, service and built-in quality, you may find it worse than no recloser at all.

The Elastimold® Recloser addresses all of these problems, and more.

The Elastimold® Recloser is 33% lighter than typical units today, so it's easier and less expensive to install. Modular design means Smart Grid sensors can be added quickly and simply. Our recloser is compatible with SEL® Controls, the best in the business. Elastimold® customer support, technical expertise and collaborative working relationships with customers mean that you will have the information you need, exactly when you need it.



The New Standard in Reclosers



The Elastimold® Recloser, in either single-phase or three-phase configurations, is fully compatible with SEL® Controls.

Elastimold® has been the No. 1 name in underground cable accessories for nearly 60 years and is the leading brand in underground solid dielectric switchgear.

Now, as the industry implements Smart Grid technologies, our world-class designs, engineering and quality-rated production facilities, combined with the best after-sale support and training, have been applied to the next-generation recloser.

Support and Service — Best in the Business

Elastimold® is known for fast, knowledgeable and user-oriented technical support. Lead times for the Elastimold® Recloser are short—typically two weeks faster than what you expect from others. From the first day you install it, no question is too small to receive our complete technical attention. If assistance is needed, our response will be swift, and often immediate.

We offer unmatched customer service to go with world-class technical support, top warranties and training in all phases of installation and operation. Your crews will know exactly what we know about the Elastimold® Recloser.

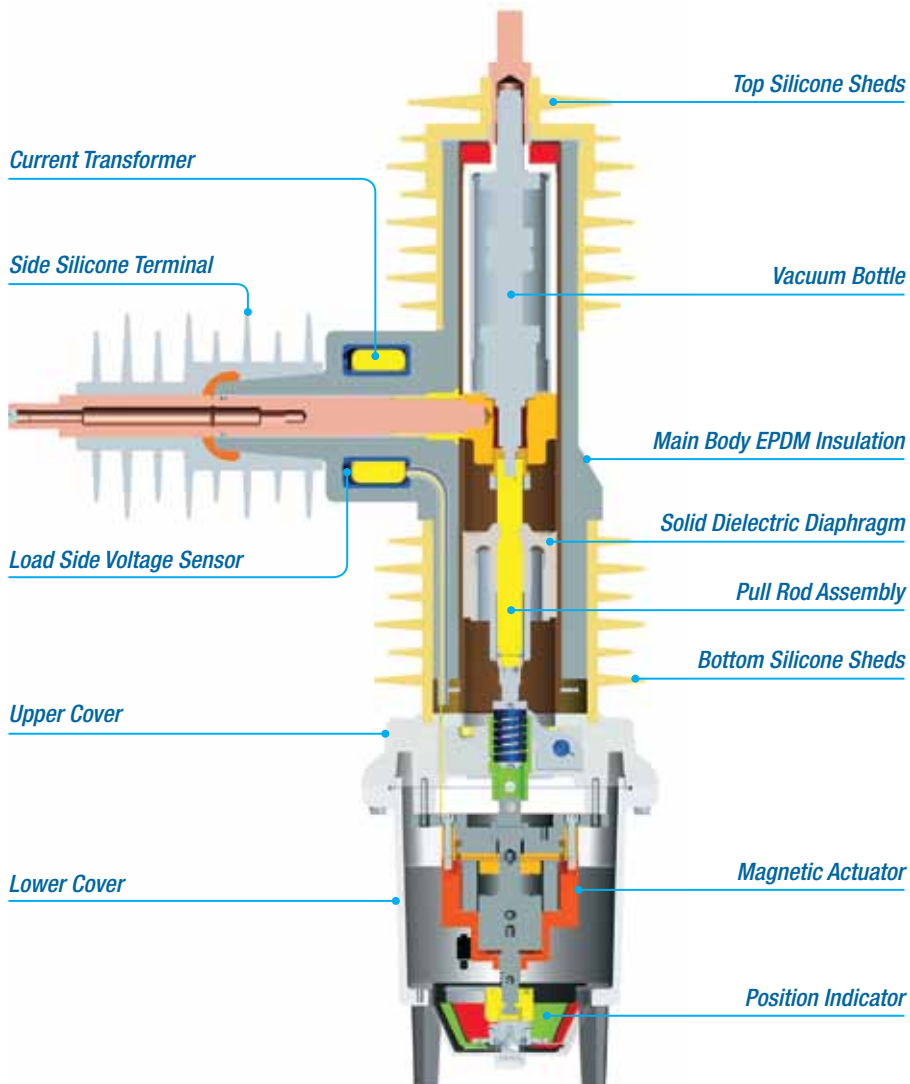


Smart, Light and Flexible

The Elastimold® Recloser is world-class, by design. It responds to every hardware requirement that utilities want, and then some.

- ➔ **Smart**—Our recloser is Smart Grid ready with three integral load-side voltage sensors and provision to add source-side voltage sensors, if desired. It was designed to be fully compatible with the industry’s No. 1 name in controls, Schweitzer Engineering Laboratories.
- ➔ **Light**—The three-phase Elastimold® Recloser weighs 33% less than existing typical units. The simplicity of the mechanism design, and the compactness of the encapsulated components, contribute to making the Elastimold® Recloser easier to move and install.
- ➔ **Flexible**—The Elastimold® Recloser is modular, so field upgrades and retrofits are easy and fast. The single phase recloser has a pole rotation mounting bracket for easier installation.
- ➔ **Made with Your Needs in Mind**—We designed the Elastimold® Recloser only after extensive talks with electric utilities. Its features, from easier-to-see open/close indicators to the many robust extra features that we consider “standard”, are there because of you.





Recloser Operation

The Elastimold® Molded Vacuum Recloser (MVR) operates electrically by energizing a magnetic actuator system with a completely sealed housing. Each pole contains a vacuum interrupter sealed in solid dielectric insulation for mechanical and high dielectric strength.

An open-closed position indicator provides a 360-degree view. An external manual trip assembly is located on the side; when in the down position, it maintains the recloser in a lockout position until it is manually restored. All electrical control connections are made through a sealed single-environment control cable connector on the side.

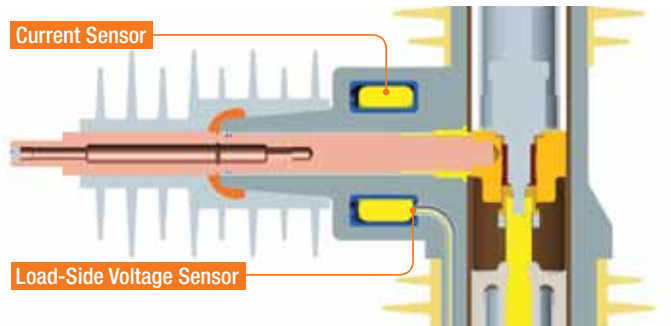
The combination of the molded vacuum recloser with microprocessor controls accurately detects a wide range of line disturbances and provides reliable, high-speed isolation for adverse conditions.

Features and Benefits

SMART

Smart Grid ready

Integral CT and load-side voltage sensors; with provisions to add Elastimold® source-side voltage sensors



Compatible with SEL® recloser controls

- SEL-351R
- SEL-351RS Kestrel®
- SEL-351R Falcon™
- SEL-651R



Notes:

Use with the SEL-351R & SEL-351R Falcon™ requires connection via MVR power module. The power module is connected to the recloser via a 6 ft, 32 pin cable

Voltage sensors require SEL-651R x 2 control with six 8VAC LEA inputs

Typical control settings

A range of controls are available for the Elastimold® Recloser. A typical control includes:

- ➔ Overcurrent protection—fast and delay curves
- ➔ Sensitive earth fault
- ➔ Complete metering
- ➔ Recloser wear monitor
- ➔ Fault locator
- ➔ Flexible control logic and integration
- ➔ Supervisory control and data acquisition ready—multiple communications protocols
- ➔ Load profile

Features and Benefits

LIGHT

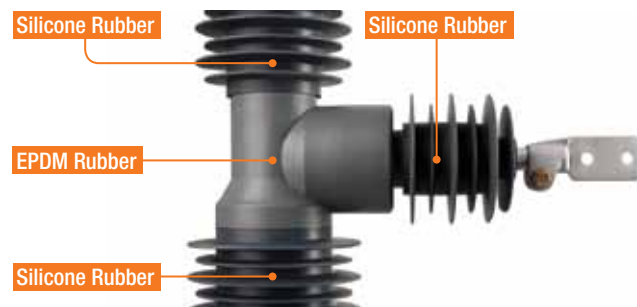
Light weight

Internal diaphragm and silicon rubber sheds reduce weight

Weight	15 kV		27 kV		38 kV	
	Others Standard	Elastimold® Standard	Others Standard	Elastimold® Standard	Others Standard	Elastimold® Standard
Single Phase	100 lb 45 kg	57 lb 25.8 kg	100 lb 45 kg	57 lb 25.8 kg	130 lb 60 kg	58 lb 26.3 kg
Three Phase	333 lb 150 kg	208 lb 94.3 kg	333 lb 150 kg	208 lb 94.3 kg	430 lb 195 kg	211 lb 95.7 kg

Proven solid dielectric insulation

Molded EPDM main body with overlapping silicon rubber sheds for improved dielectric weatherability and UV performance



Simplified mechanism

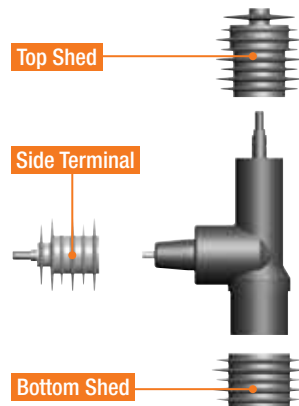
Translates into a light-weight device



FLEXIBLE

Modular design

Optimized modular design is light-weight and maintenance free. Design is modular and allows for individual pole or shed replacement if ever required



Pole rotation mount

The single-phase recloser has a unique pole rotation mounting bracket for easier installation and repositioning from 0 to 180 degrees



Features and Benefits

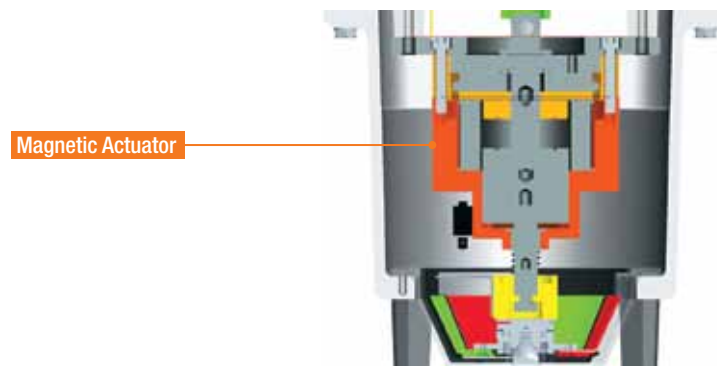
Easy-to-see position indicator

360-degree position indicator view with large color-coded reflective open/closed indicators on bottom of recloser for easy visibility from ground level



Reliable long-life mechanism

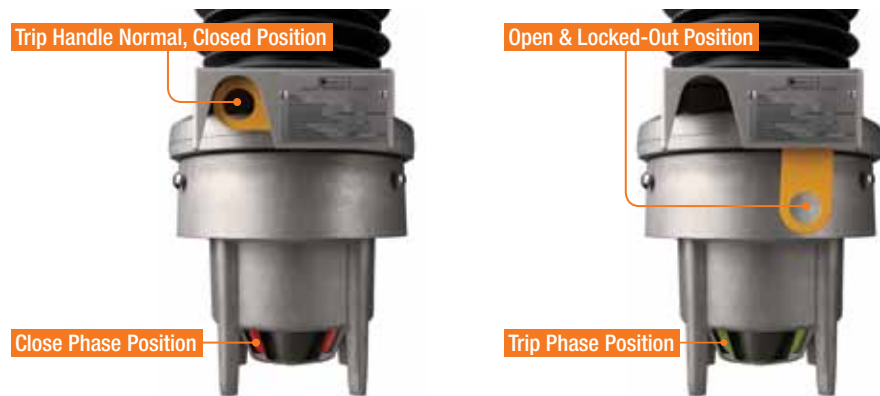
The state-of-the-art design of our magnetic actuator offers over 10,000 trip and close full-load operations with no maintenance required



Single- and three-phase tripping capabilities

The fast and highly reliable electrically-ganged operation provides flexibility of simultaneous three-phase tripping or single-phase tripping with three-phase lockout

The manual trip lever is mechanically linked to trip and lockout all three phases simultaneously



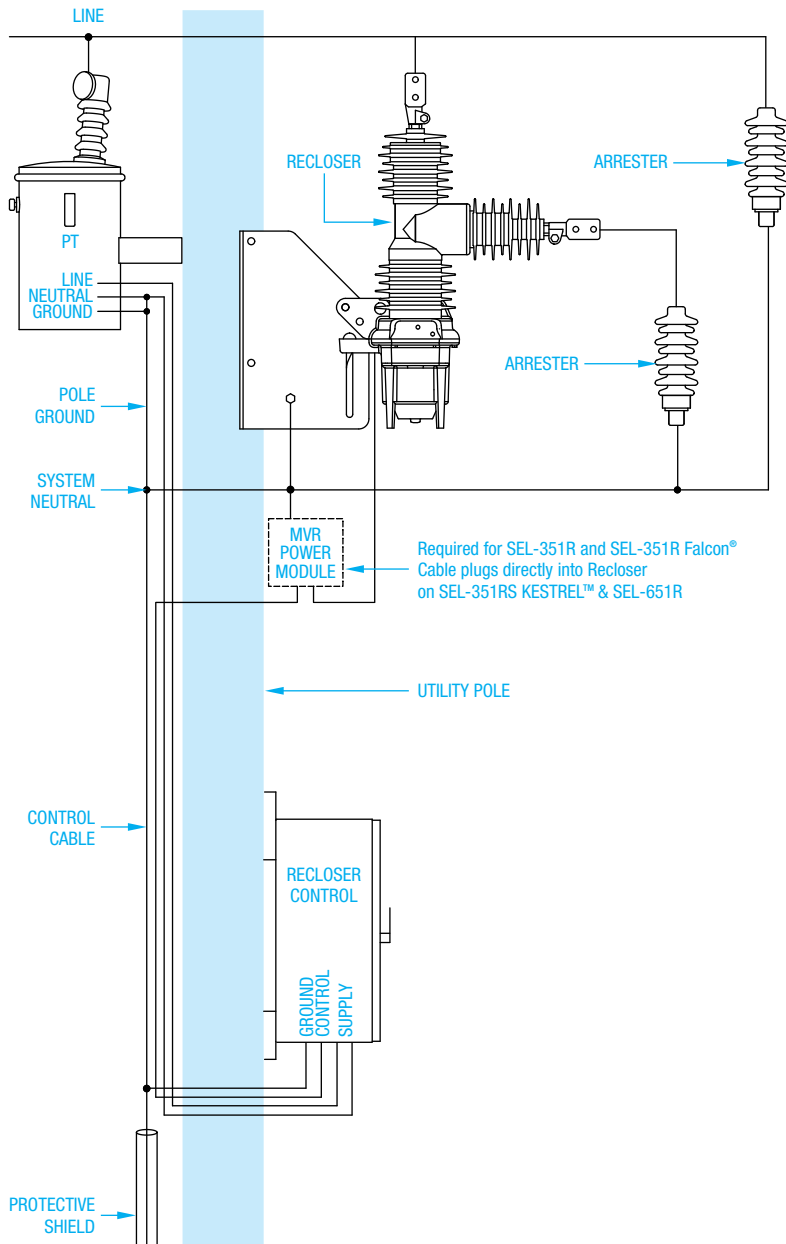
Reduced inventory items

Incorporating extra features and extended capabilities as standard can lead to less stock on your floor

	15 kV		27 kV		38 kV	
Rated Maximum Voltage	Others Standard	Elastimold® Standard	Others Standard	Elastimold® Standard	Others Standard	Elastimold® Standard
Continuous Current	630 A	800 A	630 A	800 A	630 A	800 A
BIL	95 kV	150 kV	125 kV	150 kV	150 kV	170 kV

	15 kV		27 kV		38 kV	
Pollution Level	Required Creep	Elastimold® Standard	Required Creep	Elastimold® Standard	Required Creep	Elastimold® Standard
I – Light	9.8" (248 mm)	N/A	17.0" (432 mm)	N/A	23.9" (608 mm)	N/A
II – Medium	12.2" (310 mm)	N/A	21.3" (540 mm)	N/A	30.0" (760 mm)	N/A
III – Heavy	15.3" (388 mm)	N/A	26.6" (675 mm)	N/A	37.4" (950 mm)	N/A
IV – Very Heavy	18.9" (481 mm)	41.5" (1054 mm)	33.0" (837 mm)	41.5" (1054 mm)	46.4" (1178 mm)	51.0" (1295 mm)

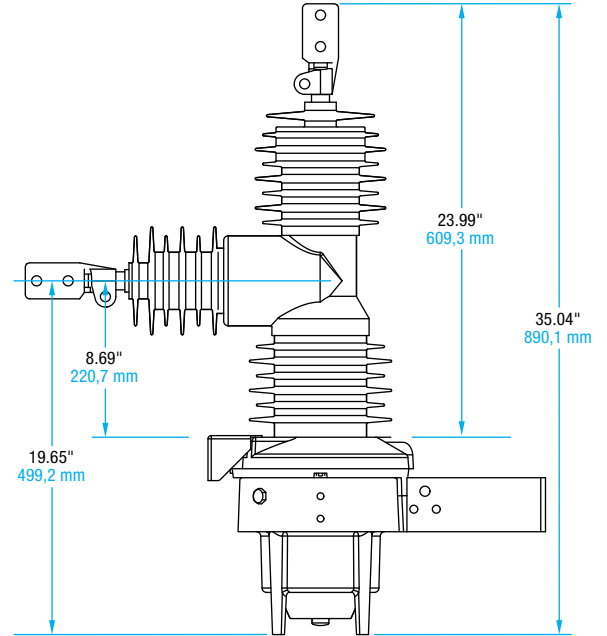
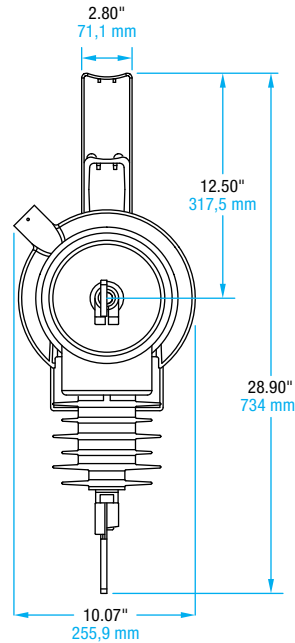
Typical Recloser Installation Detail



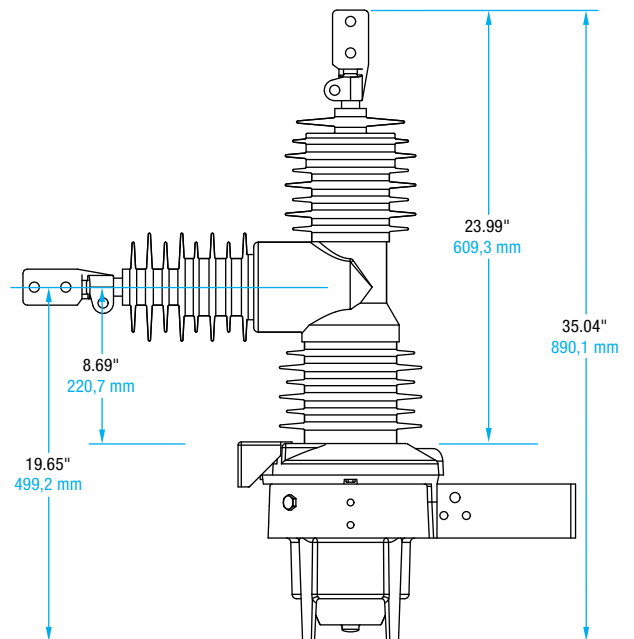
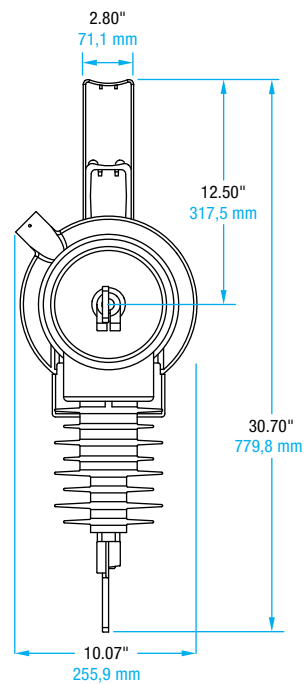
Arresters are recommended to provide protection against overvoltage conditions. When arresters are installed, they should be mounted on the supplied arrester brackets or as close to the recloser as practical.

Dimensions — Single-Phase Reclosers

15 kV & 27 kV Single-Phase Reclosers

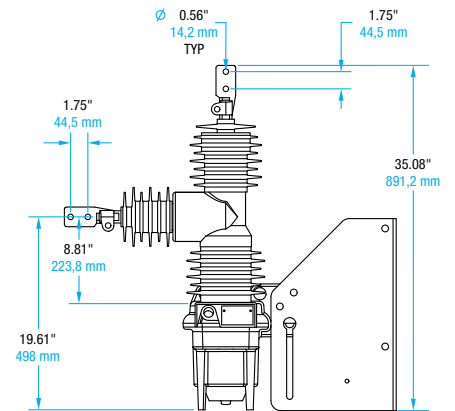
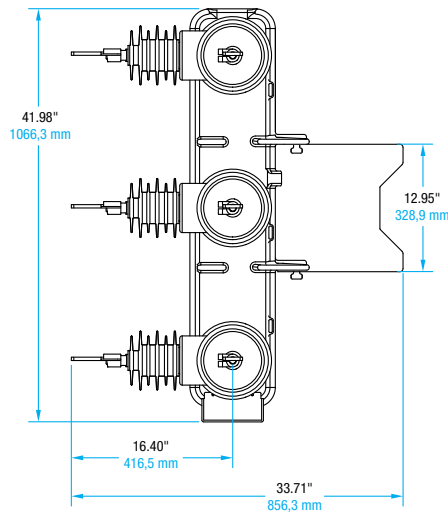
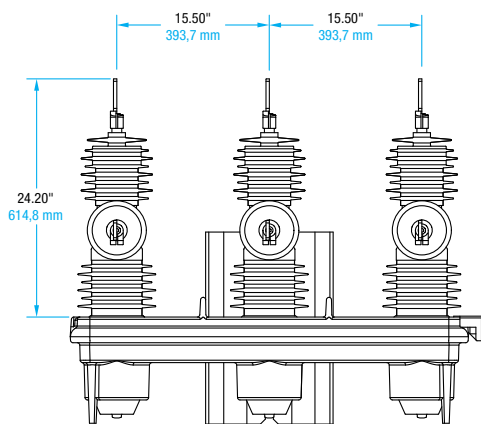


38 kV Single-Phase Recloser

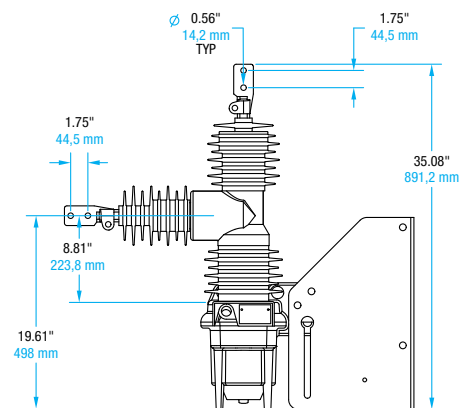
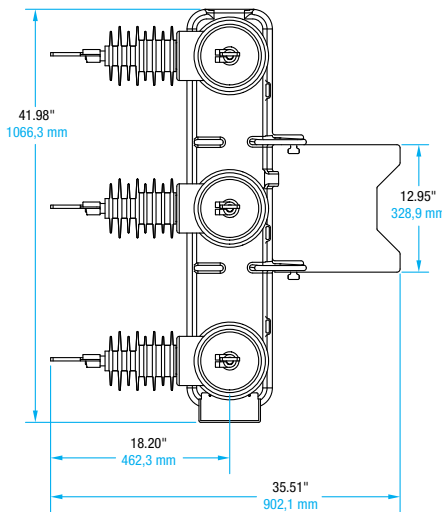
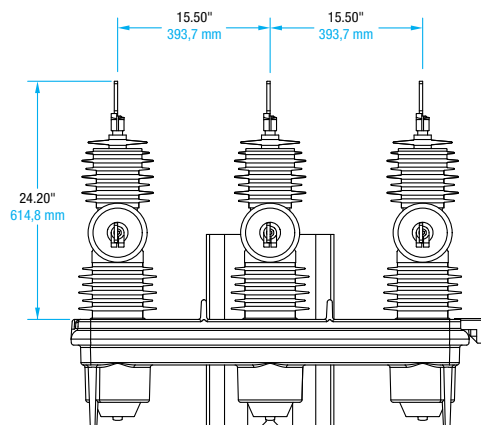


Dimensions — Three-Phase Reclosers

15 kV & 27 kV Three-Phase Reclosers

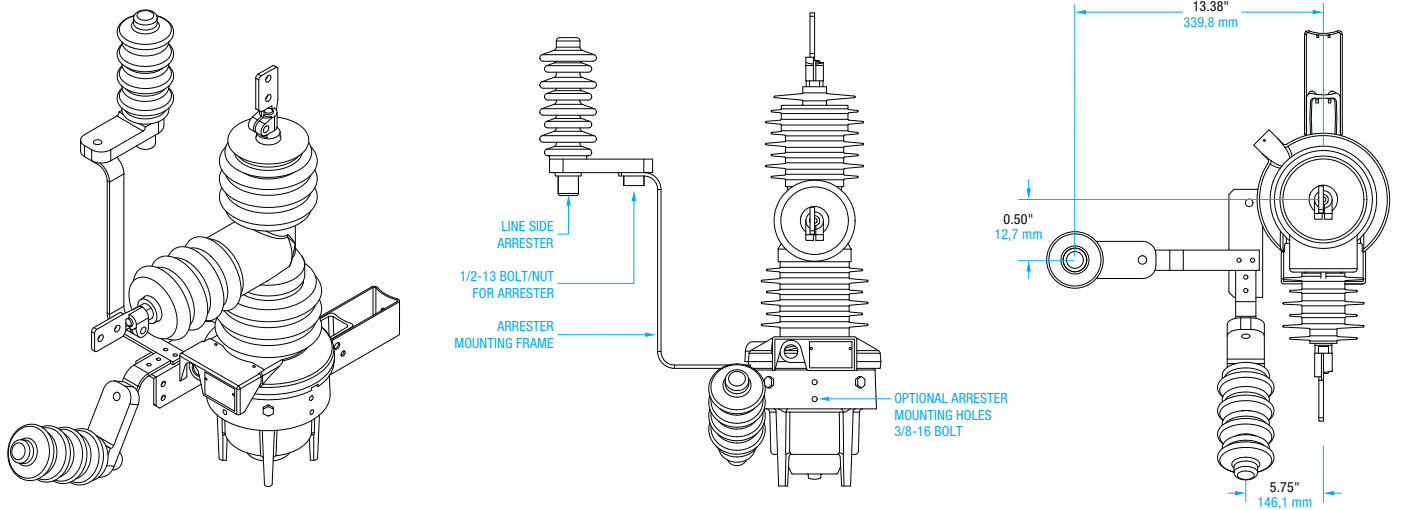


38 kV Three-Phase Recloser

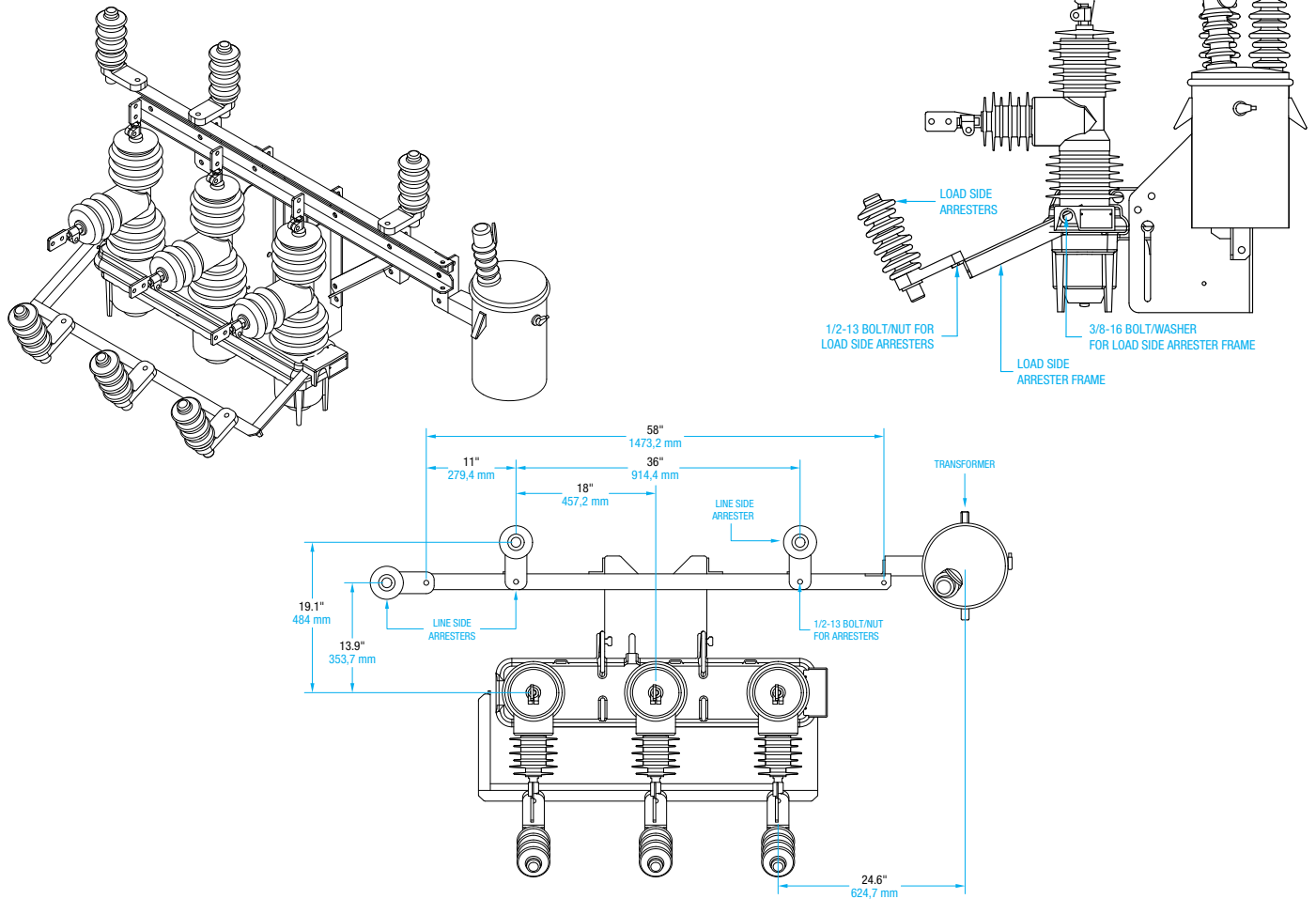


Typical Pole Installations

Single-Phase Recloser



Three-Phase Recloser



Electrical Characteristics

Ratings and Specifications	15 kV	27 kV	38 kV*
Nominal System Voltage (kV RMS)	14.4	25	35
Rated Maximum Voltage (kV RMS)	17.1	29.3	38
Nominal Frequency (Hz)	50 or 60	50 or 60	50 or 60
Phase Spacing on Three-Phase Units (Inches)	15.5	15.5	15.5
BIL (kV)	150	150	170
Power Frequency Withstand — Dry (kV)	50	60	70
Power Frequency Withstand — Wet (kV)	45	50	60
Continuous Current (A RMS)	800	800	800
Eight (8) Hour Overload Current (A RMS)	960	960	960
CT Ratio	1,000 to 1	1,000 to 1	1,000 to 1
Interrupting Current (kA RMS Symmetrical)	12.5	12.5	12.5
Making Current (kA Asymmetrical Peak)	32.5	32.5	32.5
Creepage Distances (Inches — Line to Ground)	41.5	41.5	51
Arc-Extinction Medium	Vacuum	Vacuum	Vacuum
Insulation Medium	EPDM/Silicon Rubber	EPDM/Silicon Rubber	EPDM/Silicon Rubber
Mechanical Operations	10,000	10,000	10,000
Operating Temperatures	-40°C to 65°C	-40°C to 65°C	-40°C to 65°C
Voltage Sensor Accuracy (Load/Line)	3%/1%	3%/1%	3%/1%
CT Accuracy	Class 1	Class 1	Class 1
Weight (Single-Phase/Three-Phase)	57 lb/208 lb	57 lb/208 lb	58 lb/211 lb

*Single phase 38 kV units are rated for use on grounded systems only. Three-phase 38 kV units can be used for single-phase tripping on grounded systems only. For ungrounded systems, three-phase tripping is required.



Test Data Summary

Elastimold® MVRs are tested under the requirements of ANSI C37.60-2003.

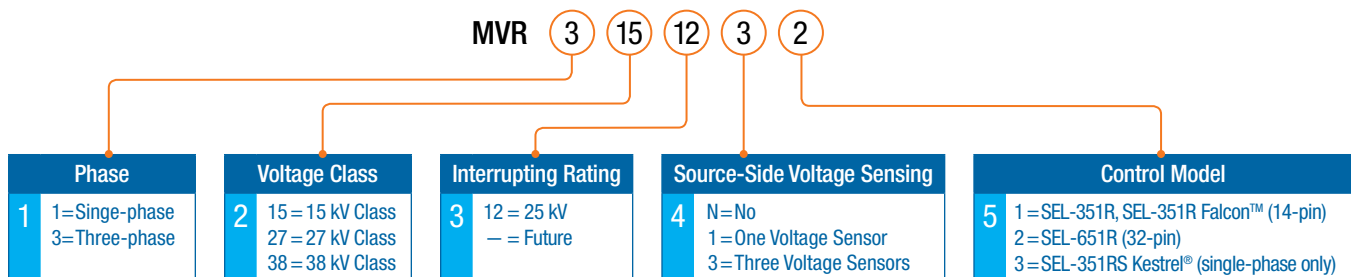
This table highlights the testing covered in Elastimold® Test Report # 372-17-12010.

C37.60-2003 Standard Clause & Description	15 kV MVR Compliance	27 kV MVR Compliance	38 kV MVR Compliance
6.2 Insulation (Dielectric) Tests	✓	✓	✓
6.3 Switching Tests	✓	✓	✓
6.4 Making Current Capability	✓	✓	✓
6.5 Operating Duty Tests	✓	✓	✓
6.6 Minimum Tripping Current Tests	✓	✓	✓
6.7 Partial Discharge (Corona) Tests	✓	✓	✓
6.10 Temperature Rise Tests	✓	✓	✓
6.11 Time-current Tests	✓	✓	✓
6.12 Mechanical Duty Tests	✓	✓	✓
6.13 Surge Withstand Capability (SWC) Tests	✓	✓	✓
Other Testing UV/Weathering Tests	✓	✓	✓
Other Testing IEC 62217— Salt Fog Spray Test (1,600 hr)	✓	✓	✓

Ordering Information

Elastimold® Molded Vacuum Recloser Catalog Numbering System													
Smart Numbers								Sequential Numbers					
MVR	3	—	15	—	12	—	3	2	X	X	X	X	X
	1		2		3		4	5	1	2	3	4	5

Control, Cable Length & Other Accessories
Sequential Numbers*



- Single-phase reclosers function with the SEL-351RS Kestrel® control. Three-phase reclosers function with SEL-651R, SEL-351R, or SEL-351R Falcon™ controls. The MVR Power Module must be specified when using a SEL-351R & SEL-351R Falcon controls.
- Load side voltage sensors are standard on all units and function with any SEL® Control having at least three 8VAC LEA voltage inputs. All units are upgradeable to Elastimold® source-side voltage sensing but require a SEL-651R x 2 control with six 8VAC LEA inputs.

*Consult your T&B sales representative for complete catalog number configuration

SEL is a registered trademark of Schweitzer Engineering Laboratories, Inc.

Accessories

Accessory Name/Description	Part Number
Three-phase Line Side Arrester Frame	3188D0120G1
Three-phase Load Side Arrester Frame	3188D0121G1
Single-phase Line Side Arrester Frame	3188C0122G1
Single-phase Load Side Arrester Frame	3188C0123G1
Wildlife Protector Top Bushing (one per phase)	3070A1191P1
Wildlife Protector Side Bushing (one per phase)	3070A1190P1
Source-side Voltage Sensors (one per phase)	3188C0075G1
Substation Mounting Frame	3188D0119G1
NEMA 2-hole pad	3188B0126G1
NEMA 4-hole pad	3180A0661P1
Aerial Lug	3070B0913G1
Fisher Pierce® Overhead Faulted Circuit Indicator — Adaptive Trip™; 4 hr automatic reset time with current reset override (60 sec. after restoration of power), five ultra-bright LEDs for increase visibility display	1548FH-ANC3JNAA
Fisher Pierce® Overhead Faulted Circuit Indicator — Adaptive Trip™; 4 hr automatic reset time with current reset override (60 sec. after restoration of power), with 4 hr temporary fault reset time, temporary fault indication option, four red and one amber LED	1548FH-ANC3XNA1



 **FISHER PIERCE**

Ask Us About the Elastimold® Recloser Today

The Elastimold® Recloser team at Thomas & Betts is eager to further demonstrate the benefits of this industry's premier product. For additional technical information and details, call or write us today.

- ➔ Customer service: 1.800.326.5282
- ➔ Technical questions: 1.855.862.1800
- ➔ www.tnb.com



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Industry codes and specifications

All Thomas & Betts products meet or exceed applicable industry specifications or codes which are detailed in the appropriate T&B product literature.

IEEE ANSI IEC

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