

# Loadbreak Apparatus Connectors

**COOPER** Power Systems

Electrical Apparatus

500-30

## 200 A 25 kV Class Rotatable Feedthru Insert

### GENERAL

The Cooper Power Systems 25 kV Rotatable Feedthru Insert is used to provide dual bushings from a single apparatus bushing well. It makes converting radial-feed transformers to feed-thru transformers and adding in-line arrester protection both easy and practical. Its patented, built-in torque-limiting ratchet prevents operators from accidentally breaking bushing well studs during installation. The ratchet feature also allows the operator to rotate the feedthru insert 360° to orient it in the best position for the application. The bail assembly supplied with the kit can be used to lock the feedthru in position.

The Cooper Power Systems Rotatable Feedthru Insert incorporates an all copper current path and peroxide cured EPDM rubber. It fully meets the requirements of **IEEE Standard 386™**. When mated with comparably rated products, the insert provides a fully shielded and submersible loadbreak apparatus connection.

Cooper's latch indicator ring, located on the circumference of the bushing's collar, eliminates the guesswork of loadbreak elbow installation on the bushing interface. The bright yellow ring provides immediate feedback to determine if the elbow is properly installed on the bushing. If the yellow ring is completely covered by the loadbreak elbow, it is fully "latched," if the ring is visible, the elbow can be installed correctly before any problems can occur.

### INSTALLATION

Instruction sheet S500-13-1 details the installation procedures that should be followed and are included with each insert. No special tools are required for the proper installation of the insert. A cleaned and lubricated insert is simply placed in a bushing well and turned in a clockwise direction. When the torque-limiting ratchet releases, giving an audible clicking, the insert will be properly installed and tightened to the correct torque. Continued rotation in a clockwise direction allows for a full 360° positioning to meet the demands of the application. To remove a de-energized insert simply rotate in a counterclockwise direction.



**Figure 1.**  
The Rotatable Feedthru Insert with patented torque-limiting ratchet allows insert to be positioned to any orientation.

### PRODUCTION TESTS

Tests conducted in accordance with **IEEE Standard 386™**.

- AC 60 Hz 1 Minute Withstand —40 kV
- Minimum Corona Voltage Level —19 kV

Tests conducted in accordance with Cooper Power Systems requirements.

- Physical Inspection
- Periodic Dissection
- Periodic X-ray Analysis

**TABLE 1**  
Voltage Ratings and Characteristics

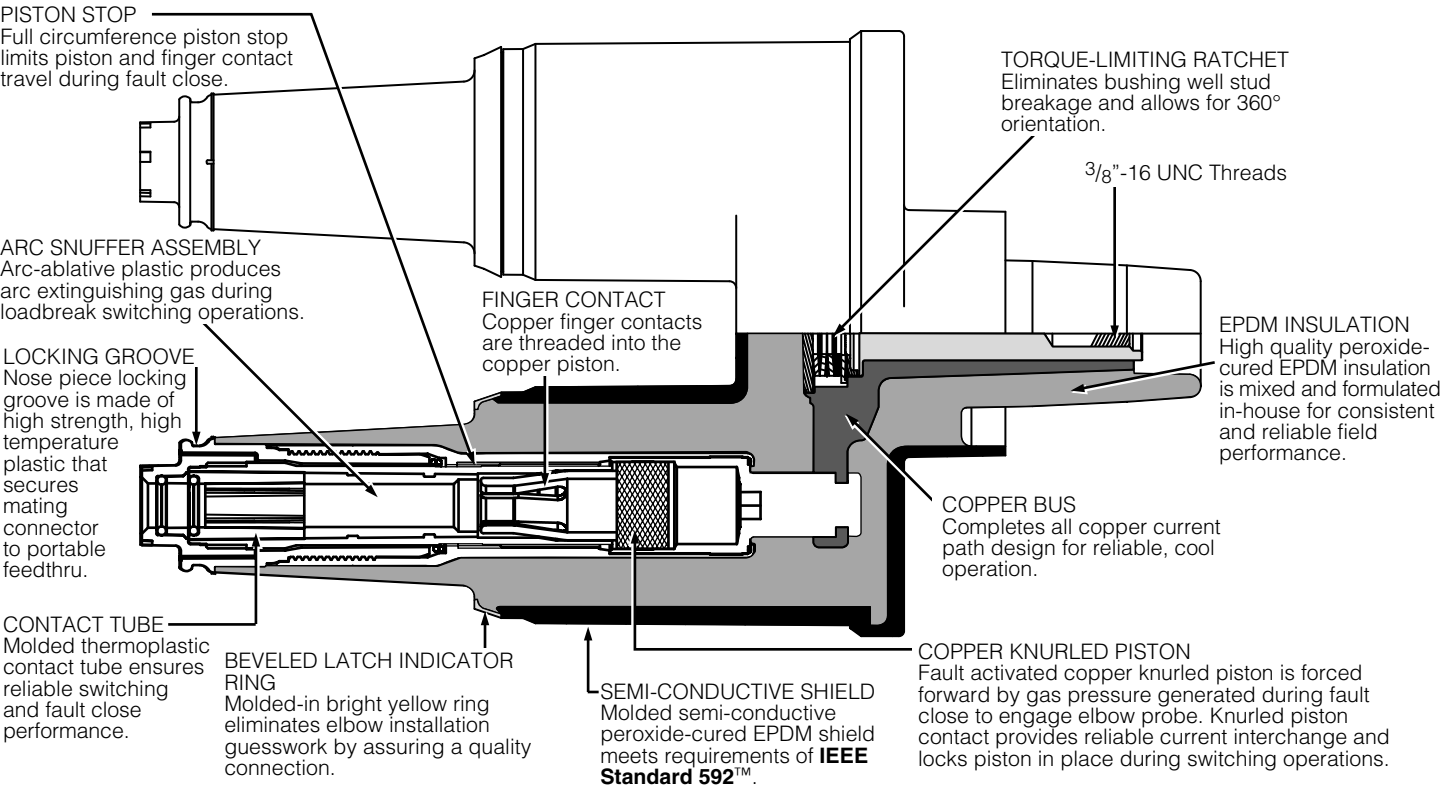
Description	kV
Standard Voltage Class	25
Maximum Rating Phase-to-phase	26.3
Maximum Rating Phase-to-ground	15.2
AC 60 Hz 1 Minute Withstand	40
DC 15 Minute Withstand	78
BIL and Full Wave Crest	125
Minimum Corona Voltage Level	19

Voltage ratings and characteristics are in accordance with **IEEE Standard 386™**.

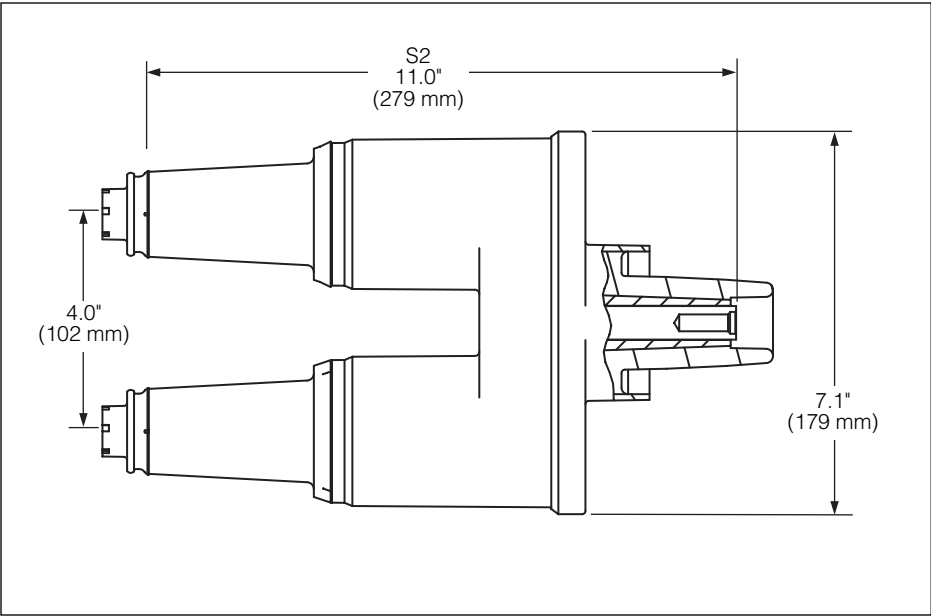
**TABLE 2**  
Current Ratings and Characteristics

Description	Amperes
Continuous Switching	200 A rms 10 operations at 200 A rms at 26.3 kV
Fault Closure	10,000 A rms symmetrical at 26.3 kV for 0.17 s after 10 switching operations
Short Time	10,000 A rms symmetrical for 0.17 s 3,500 A rms symmetrical for 3.0 s

Current ratings and characteristics are in accordance with **IEEE Standard 386™**.



**Figure 2.**  
Illustration shows field-proven, all copper current path which ensures cool operating temperatures and reliability.



**Figure 3.**  
Rotatable Feedthru Insert profile and stacking dimensions.

**ORDERING INFORMATION**

To order the 25 kV Rotatable Feedthru Insert, refer to Table 3.

**TABLE 3**  
Rotatable Feedthru Insert Kit

Description	Catalog Number
Rotatable Feedthru insert	LFI225

Each kit contains:

- Rotatable Feedthru Insert
- Shipping Cap (not for energized operation)
- Stainless Steel Bail Assembly
- Silicone Lubricant
- Installation Instruction Sheet

**TABLE 4**  
Replacement Parts

Description	Catalog Number
Bail Assembly	2604941B08

