

200 A 35 kV Class Three-Phase Integral Loadbreak Bushing

800-39

GENERAL

The RTE® 200 A 35 kV three-phase rated integral loadbreak bushing meets all the requirements of ANSI/IEEE Standard 386—separable insulated connector systems, and combines the advantages of a reliable one-piece design with the operating features required for underground distribution switching. The bushing is designed for padmount transformers, switchgear and other apparatus filled with transformer oil, R-Temp® Fluid or an approved equivalent. It eliminates the insert-to-well interface present in bushing well and insert primary terminations.

The three-phase rated 21.1/36.6 kV design has an ablative arc interrupter for superior arc quenching characteristics, and a fault activated piston contact assembly for a full 10 cycle, 36.6 kV fault close rating. The bushing has a continuous copper/copper alloy current path.

The 21.1/36.6 kV three-phase rated bushing should not be used with 21.1 kV single-phase rated loadbreak elbow connectors or grounding elbows. Bushings designed for use with large interface 21.1 kV single-phase rated products are described in Section 800-38. For quick identification, RTE 21.1/36.6 kV three-phase rated bushings are color coded with purple nose pieces. Mating 21.1/36.6 kV three-phase rated loadbreak elbow connections (Section 500-46) have a molded purple cuff. Single-phase rated products are color coded with tan nose pieces and molded cuffs. When mated with comparably rated products, the bushing provides a fully shielded, submersible, separable connection for loadbreak operation.

INSTALLATION

One-piece bushings are installed through the apparatus front plate and externally clamped. No special tools are required. Internal primary leads are threaded or bolted to the copper stud. Refer to Installation Instruction Sheet 5000050608 for details.



Figure 1.
200 A 35 kV Three-Phase Integral Loadbreak Bushing.

PRODUCTION TESTS

Tests are conducted in accordance with ANSI/IEEE Standard 386.

- ac 60 Hz 1 Minute Withstand — 50 kV
- Minimum Corona Voltage Level — 26 kV

Tests are conducted in accordance with RTE requirements.

- Physical Inspection
- Periodic Dissection
- Periodic Fluoroscopic Analysis (X-ray)

TABLE 1
Voltage Ratings and Characteristics

| Description | kV |
|--------------------------------|------|
| Standard Voltage Class | 35 |
| Maximum Rating Phase-to-Phase | 36.6 |
| Maximum Rating Phase-to-Ground | 21.1 |
| ac 60 Hz 1 Minute Withstand | 50 |
| dc 15 Minute Withstand | 103 |
| BIL and Full Wave Crest | 150 |
| Minimum Corona Voltage Level | 26 |

Voltage ratings and characteristics are in accordance with ANSI/IEEE Standard 386.

TABLE 2
Current Ratings and Characteristics

| Description | Amperes |
|----------------------|--|
| Continuous Switching | 200 A rms 10 operations at 200 A rms at 36.6 kV |
| Fault Closure | 10,000 A rms symmetrical at 36.6 kV after 10 switching operations for 0.17 s |
| 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 ANSI/IEEE Standard 386.

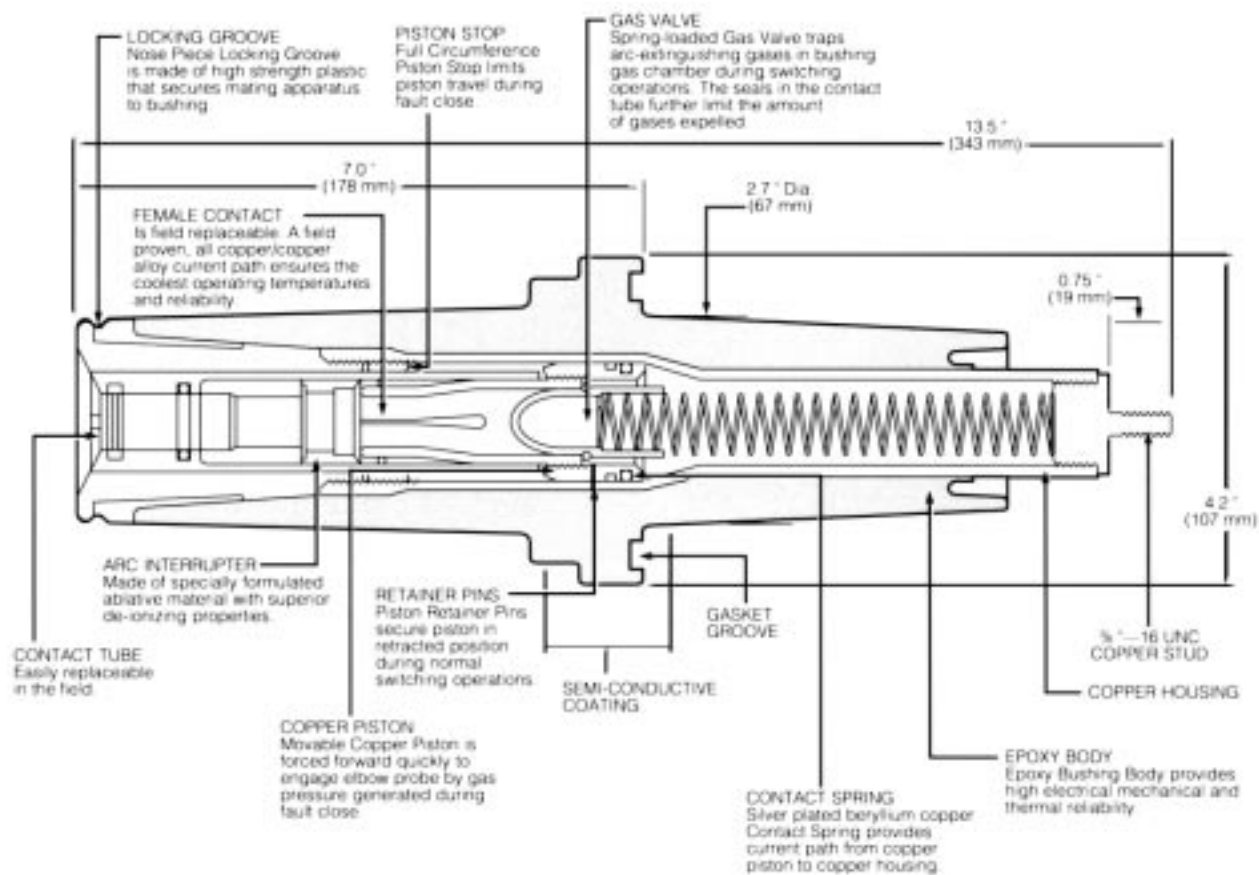


Figure 2.
200 A 35 kV Class Three-Phase Integral Loadbreak Bushing.

NOTE: Dimensions given are for reference only.

ORDERING INFORMATION

To order an RTE 35 kV Class three-phase integral loadbreak bushing, specify the bushing, gasket and mounting clamp from Table 3.

TABLE 3
Bushing, Gasket and Clamp.

| Description | Catalog Number |
|------------------|----------------|
| Integral Bushing | 2637024C01M |
| Gasket | 0537980C12 |
| 4-Stud Clamp | 2603989B01 |

TABLE 4
Replacement Parts

| Description | Catalog Number |
|-----------------------|----------------|
| Contact Tube Assembly | 2637407B01 |
| Contact Tube | 2637585B01 |
| Replacement Tool | 2637269B01 |
| Shipping Cap | |

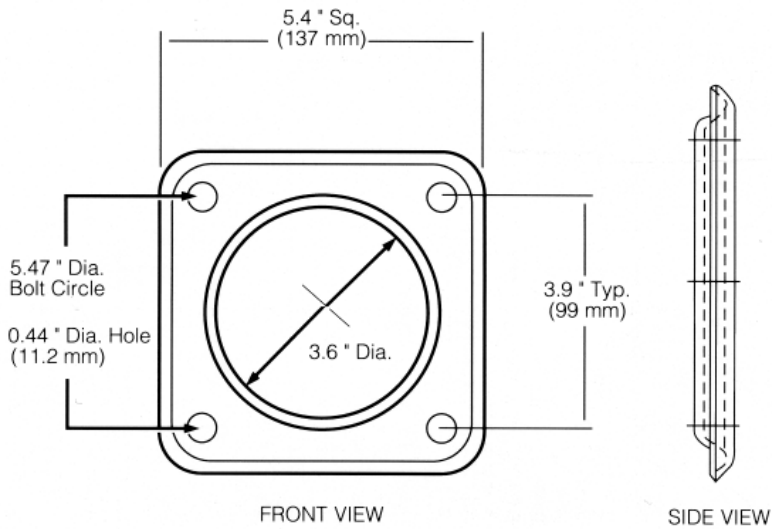


Figure 3.
Bushing Clamp.

NOTE: Dimensions given are for reference only.

