

# 600 A, 35 kV class deadbreak apparatus bushing



## General

Eaton's Cooper Power™ series 600 A, 35 kV class deadbreak apparatus bushing meets the full requirements of IEEE® Std 386™-2006 for separable insulated connector systems. All 600 A separable connectors manufactured according to IEEE Std 386™-2006 will operate with this bushing.

The epoxy bushings are designed for sidewall mounting in transformers, switches, and other apparatus filled with transformer oil, Envirotemp™ FR3™ fluid, or an approved equivalent. Separable connector systems, such as Eaton's Cooper Power series BOL-T™ and T-OP™ II deadbreak connectors as well as other similar systems on the market, can be used with these bushings. The bushing includes an internal ground screen. Electrical connection to ground is made via the ground clips and bushing clamp.

## Installation

No special tools are required. The bushing is mounted through the apparatus sidewall and clamped externally. Refer to *Service Information S800-35-2 High-Voltage Primary Bushings Installation Instructions* for details.

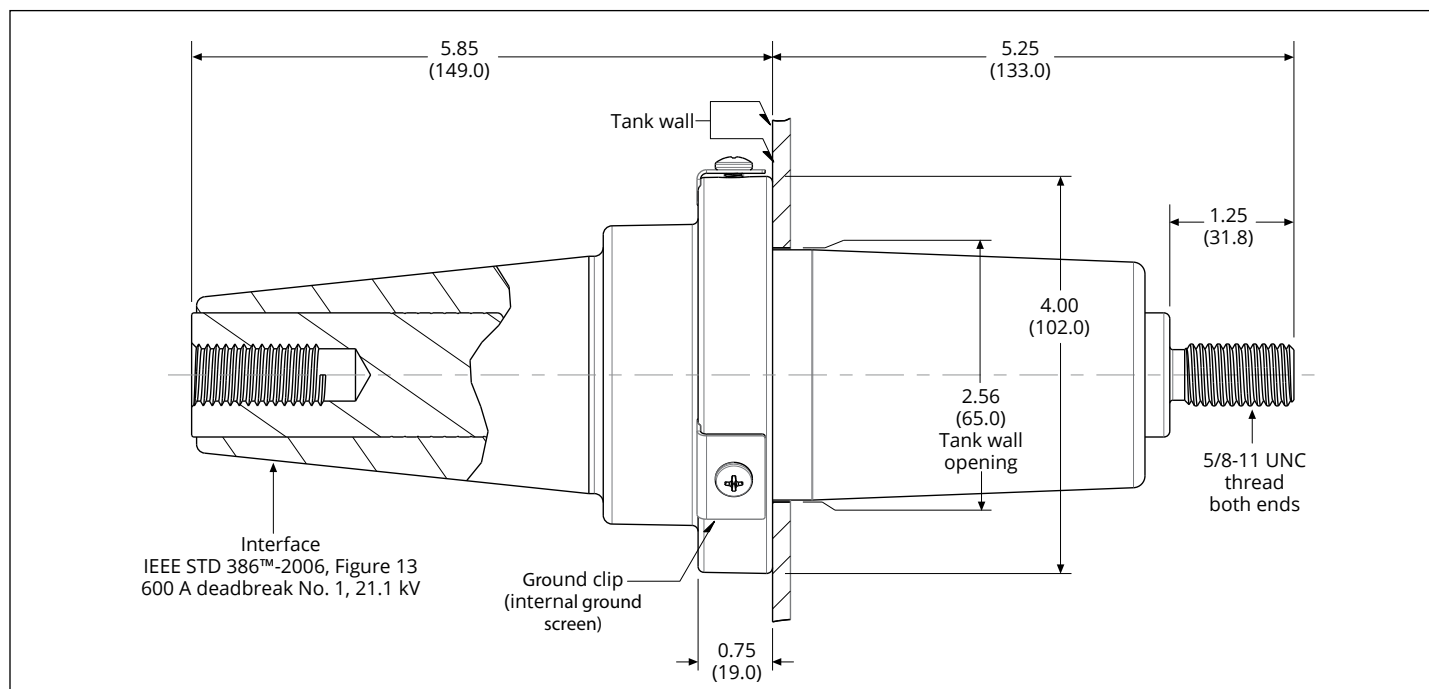
## Production tests

Tests are conducted in accordance with IEEE Std 386™-2006.

- AC 60 Hz 1-minute withstand: 50 kV
- Minimum partial discharge level: 26 kV

Tests are conducted in accordance with Eaton requirements:

- Physical inspection
- Periodic dissection
- Periodic fluoroscopic analysis (X-ray)
- Periodic 150 kV impulse withstand

**Figure 1. 600 A, 35 kV class deadbreak apparatus bushing—dimensions in inches (mm)****Note:** Dimensions given are for reference only.**Table 1. Voltage ratings and characteristics**

Description	kV	kV
Standard voltage class	35	35
Maximum rating phase-to-ground	21.1	21.1
AC 60 Hz 1-minute withstand	50	70
DC 15-minute withstand	103	114
BIL and full wave crest	150	200
Minimum corona voltage level	26	26

**Note:** Voltage ratings and characteristics are in accordance with IEEE Std 386™-2006.**Table 2. Current ratings and characteristics**

Description	Amperes
Continuous	600 A rms (aluminum) 900 A (copper)
Short time (aluminum)	25,000 A rms symmetrical for 0.17 s 10,000 A rms symmetrical for 3.0 s
Short time (copper)	40,000 A rms symmetrical for 0.17 s 10,000 A rms symmetrical for 3.0 s

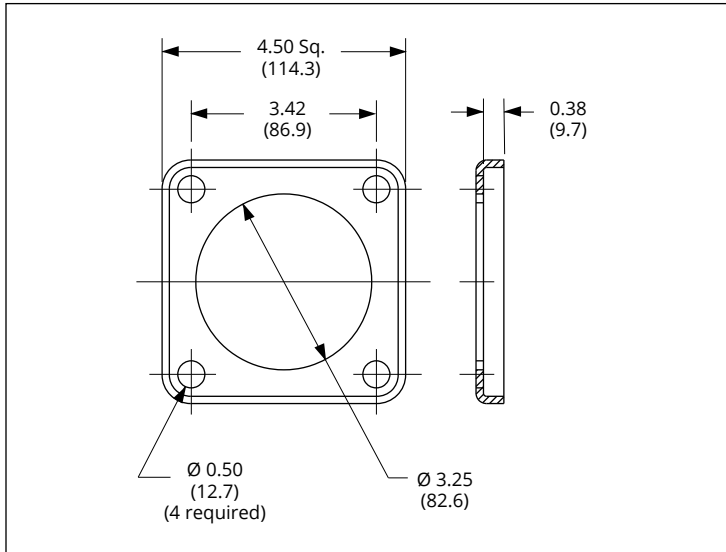
**Note:** Current ratings and characteristics are in accordance with IEEE Std 386™-2006.**Ordering information**To order a 600 A, 35 kV class deadbreak bushing, specify bushing, clamp, and gasket from **Table 3**.**Table 3. Bushing, clamp, and gasket**

Description	Catalog number	
	150 kV BIL (black)	200 kV BIL (red)
35 kV bushing		
Aluminum conductor	DB635B150	DB635B200
Copper conductor	DB935B150	DB935B200
Plated steel clamp	2637023B01	2637023B01
Stainless steel clamp	2637023B02	2637023B02
Gasket	0537980C06	0537980C06

**Note:** For SF<sub>6</sub> applications, contact your Eaton representative.**Note:** Maximum tank wall thickness for the bushing is 0.25 inches.**Table 4. Accessories**

Description	Catalog number
Shipping cap (not for energized operation)	2610082P01
If a threaded stud is required, specify:	
Aluminum	STUD635-A
Copper	STUD635-C

**Note:** For other thread types, contact your Eaton representative.



**Figure 2. Clamp front and side view—dimensions in inches (mm)**

**Note:** Dimensions given are for reference only.

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For Eaton's Cooper Power series deadbreak  
apparatus bushing product information,  
call 1-877-277-4636 or visit:  
[www.eaton.com/cooperpowerseries](http://www.eaton.com/cooperpowerseries).