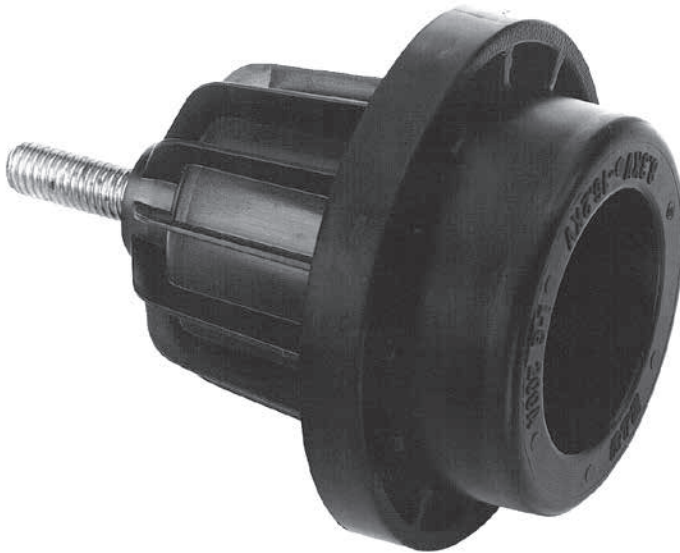


# 200 A 15, 25 and 28 kV class plastic (HTN) molded bushing well with fixed or removable stud



## General

Eaton meets the full requirements of the latest revision of the IEEE Std 386™ standard – separable insulated connector systems with its Cooper Power™ series 200 A 15, 25 and 28 kV Class bushing well.

It is designed for the termination of primary winding leads at the front plate of fluid-filled apparatus rated at either 8.3/14.4 kV, 15.2/26.3 kV or 16.2/28.0 kV (for Canadian applications).

The bushing well is externally clamped for sidewall mounting on single- or three-phase transformers filled with transformer oil, Envirotemp™ FR3™ fluid or an approved equivalent. It is available to fit a 2.56 inch (65 mm) mounting hole and mates with all bushing inserts meeting applicable IEEE® Standards. It's knurled copper stud with rolled threads provides excellent conductivity.

A removable stud option is available. It offers easy field replacement of the bushing stud with a standard 5/8" socket wrench in the event of damage or breakage in the field. A 7/64" hex has been provided in the portion of the stud which mates into the bushing insert. Should breakage occur here this feature allows for easy stud removal from the insert.

These bushing wells are molded with DuPont Zytel® HTN high temperature nylon. The Zytel HTN high reliability fulfills the required application needs for temperature stability, strength, toughness, low moisture absorption and retention of viable mechanical and electrical properties in humid high-temperature environments. The gasket surfaces provide controlled compression and containment of the highly resilient Buna-N rubber gasket.

## Installation

The bushing well is installed in the front plate of the oil-filled apparatus with a gasket on the internal shank of the well. A bushing insert is installed in the well only while the apparatus is de-energized. Refer to installation instructions Sheet S800-35-2 for details.

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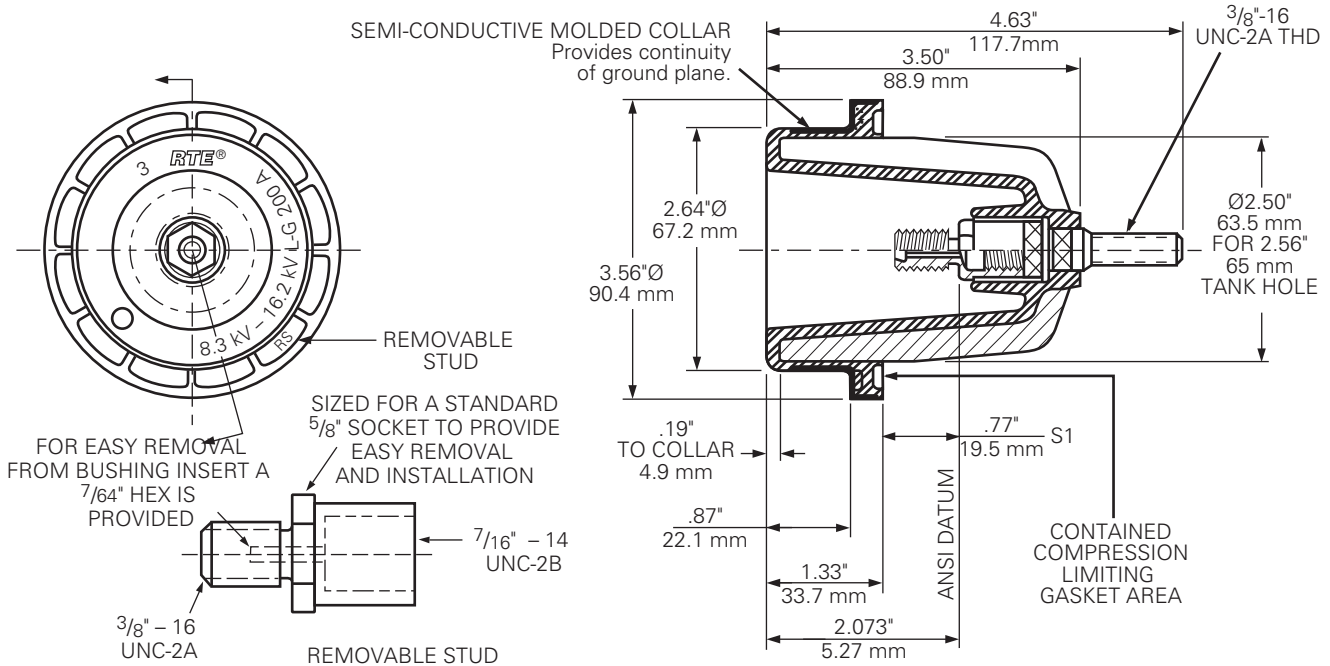


Figure 1. 200 A 15, 25 and 28 kV Class Bushing Well, with removable stud feature shown.

Note: Dimensions given are for reference only.

### Production tests

- ac 60 Hz 1 Minute Withstand
  - 45 kV
- Minimum Corona Voltage Level
  - 21.5 kV

Tests are conducted in accordance with Eaton requirements.

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

Table 2. Current Ratings and Characteristics

Description	Amperes
Continuous	200 A rms
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 the IEEE Std 386™ standard and applicable Canadian requirements.

Table 1. Voltage Ratings and Characteristics

Description	kV
Standard Voltage Class	25
Maximum Rating Phase-to-phase	28.0
Maximum Rating Phase-to-ground	16.2
ac 60 Hz 1 Minute Withstand	45
dc 15 Minute Withstand	100
BIL and Full Wave Crest	125
Minimum Corona Voltage Level	21.5

Voltage ratings and characteristics are in accordance with the IEEE Std 386™ standard and applicable Canadian requirements.



Figure 2. Removable copper stud.

### Ordering information

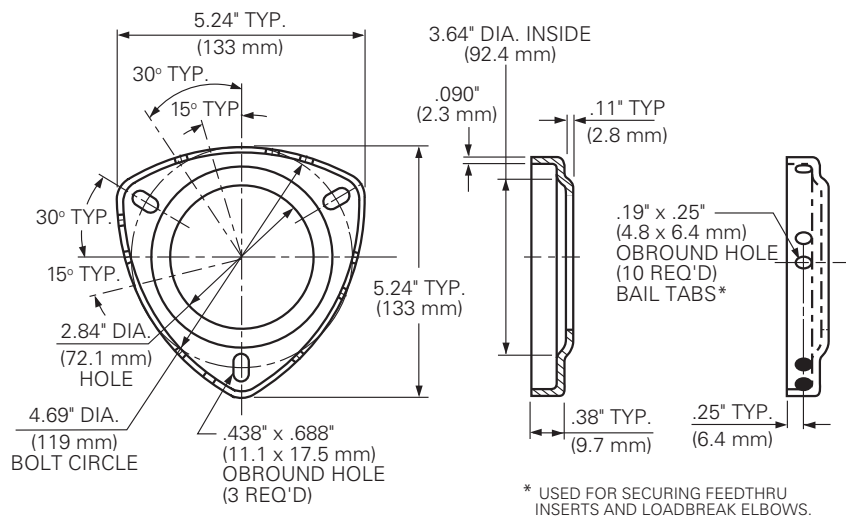
To order a 15, 25 and 28 kV Class bushing well, specify bushing well and clamp from Table 3. The gasket is included with the bushing well.

**Table 3. Bushing Wells, Clamps and Gaskets**

Description	Catalog Number	Figure
Bushing Well with Fixed Stud	2638372C01	3
Bushing Well with Removable Stud	2638372C02R	3
4-Stud Clamp (3.25 in.) (Mild Steel-Hot Dip Galvanized)	2606821A01	5
4-Stud Clamp (3.25 in.) (Mild Steel-Hot Dip Galvanized) with Two Bail Tabs	2606823A02	5
4-Stud Clamp (3.25 in.) (Mild Steel-Hot Dip Galvanized) with Four Bail Tabs	2606823A04	5
3-Stud Clamp with Flange (Mild Steel-Zinc/Gold Dichromate)	2085399A01	4
3-Stud Clamp with Flange (Stainless Steel)	2085399A02	4
Bushing Well Shipping Cap*	2638640C01	
Gasket*	0537980C22	3
Removable Stud Replacement Kit	2639081B01B	2 & 3

\* Bushing well shipping cap and gasket are included with bushing well.

**Note:** For 35 kV rating, add an "S" to the end of bushing well catalog number (example \_ \_ \_ C01S).



**Figure 3. 3-stud clamp with flange.**

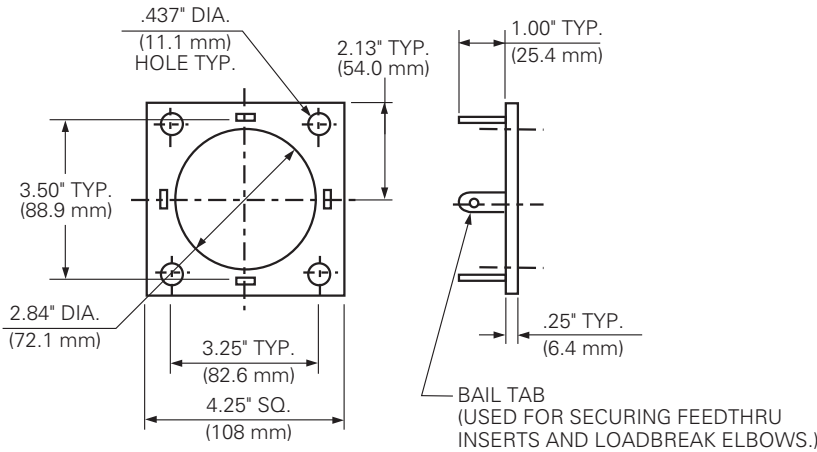


Figure 4. 4-stud, 3.25 inch clamp.

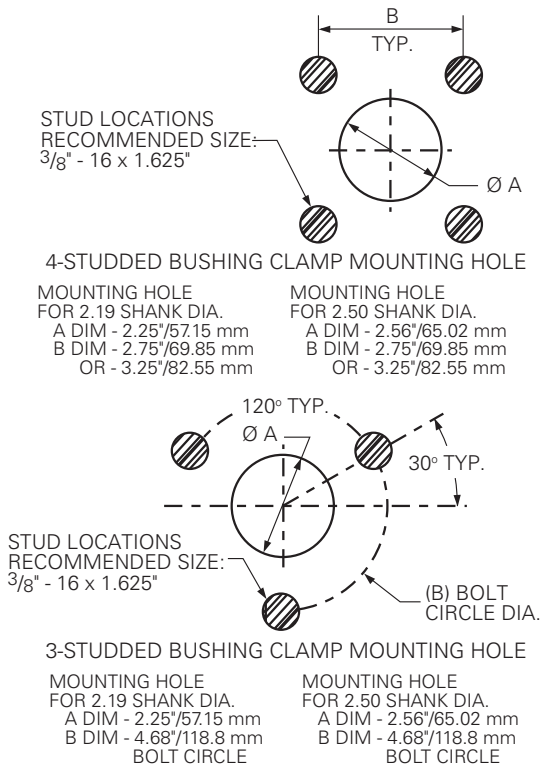


Figure 5. Recommended tank wall dimensions.

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