OEM Equipment
Catalog Data
CA800015EN

Effective July 2015
Supersedes 800-34 April 2004

COOPER POWER SERIES

200 A 15, 25 and 28 kV class epoxy bushing well with fixed or removable stud

General

Eaton meets the full requirements of the latest revision of 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 for a 2.56 inch (65 mm) hole and mates with all bushing inserts meeting applicable IEEE® Standards. The knurled copper stud with rolled threads provides excellent conductivity.

The removable stud option 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 this feature allows for easy stud removal from the insert.

Installation

The bushing well is installed in the front plate of 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 Instruction Sheet S800-35-2 for details.

Production tests

Tests are conducted in accordance with IEEE Std 386™ standard, and applicable Canadian requirements.

- 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)

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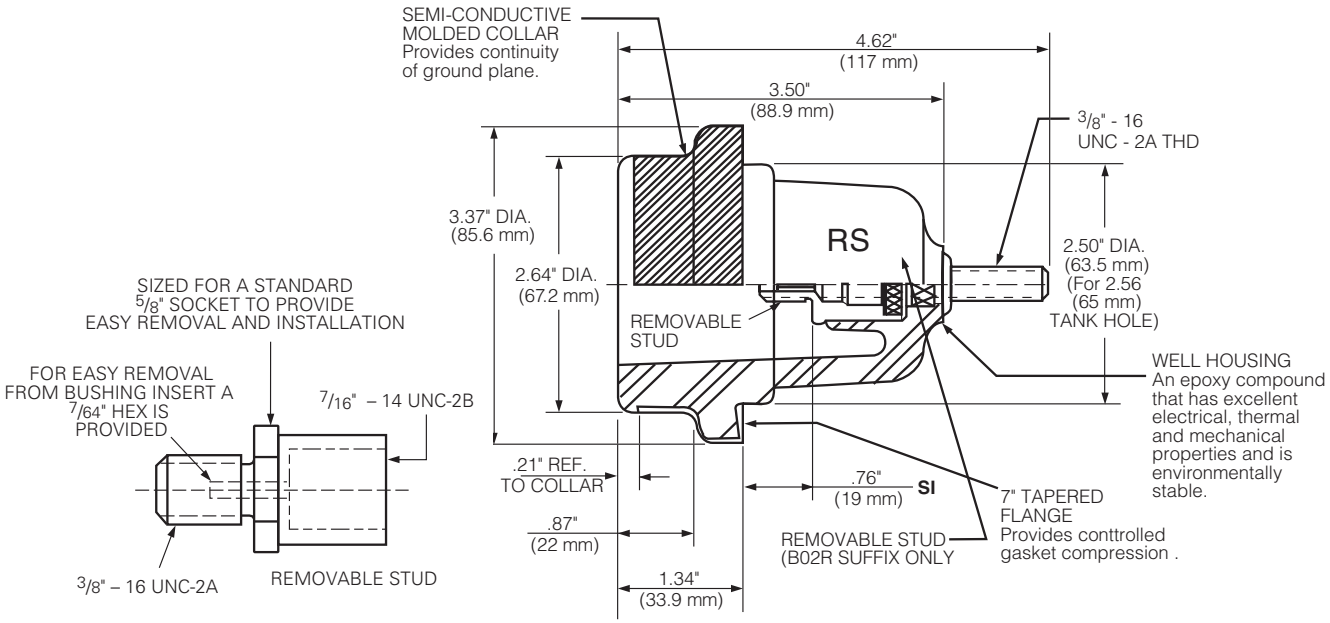

Figure 1. 200 A 15, 25 and 28 kV Class bushing well, with removable stud feature shown.

Note: Dimensions given are for reference only.

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 IEEE Std 386™ standard and applicable Canadian requirements.

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 IEEE Std 386™ standard and applicable Canadian requirements.

Ordering information

To order a 15, 25 and 28 kV Class Bushing Well, specify bushing well, gasket and clamp from Table 3.

Table 3. Bushing Wells, Clamps and Gaskets

Description	Catalog Number	Figure
2.5 inch Diameter Well with Fixed Stud	2603973B02T	1
2.5 inch Diameter Well with Removable Stud	2603973B02R	1
4-Stud Clamp (3.25 in.)	2606821A01	4
4-Stud Clamp (3.25 in) with Two Bail Tabs	2606823A02	4
4-Stud Clamp (3.25 in.) with Four Bail Tabs	2606823A04	4
4-Stud Clamp (2.75 in.)	2606722A01	6
4-Stud Clamp (2.75 in.) with Two Bail Tabs	2606822A02	6
3-Stud Clamp with Flange	2085399A01	3
3-Stud Clamp with Flange (Stainless Steel)	2085399A02	3
3-Stud Clamp	2026152A51	2
Bushing Well Shipping Cap	2638640C01	
Gasket for 2.5 inch Diameter Well	0537980C07	1
Removable Stud Replacement Kit	2639081B01B	1 & 5

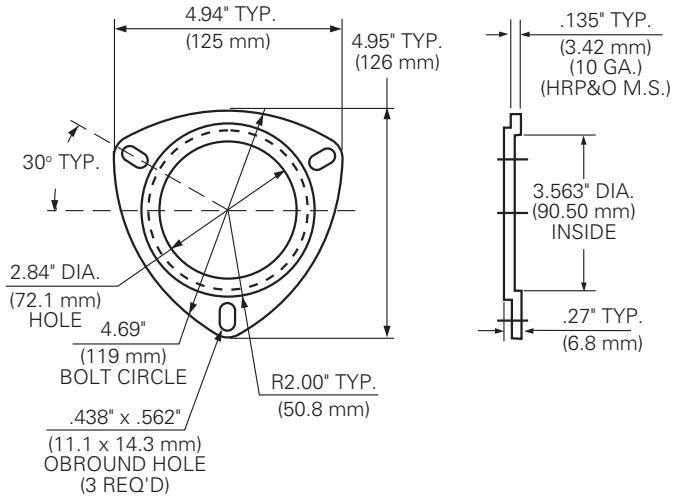

Figure 2. 3-Stud clamp.

Figure 5. Removable copper stud.

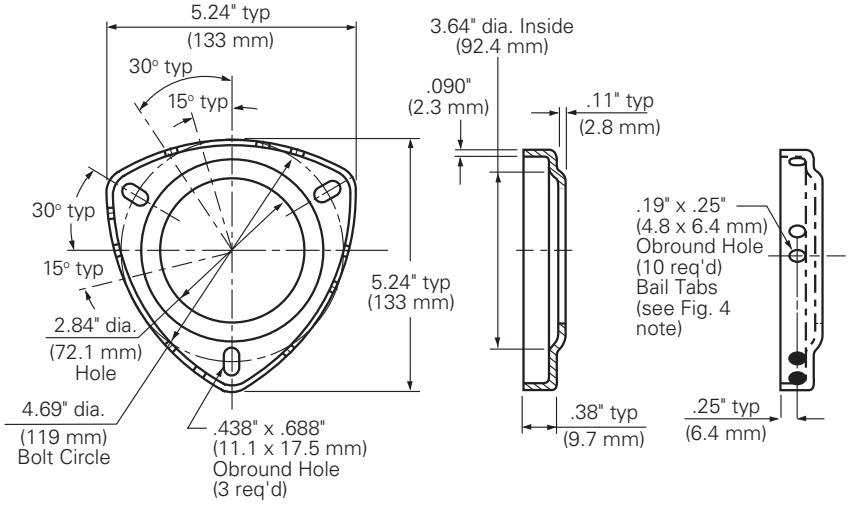

Figure 3. 3-Stud clamp with flange.

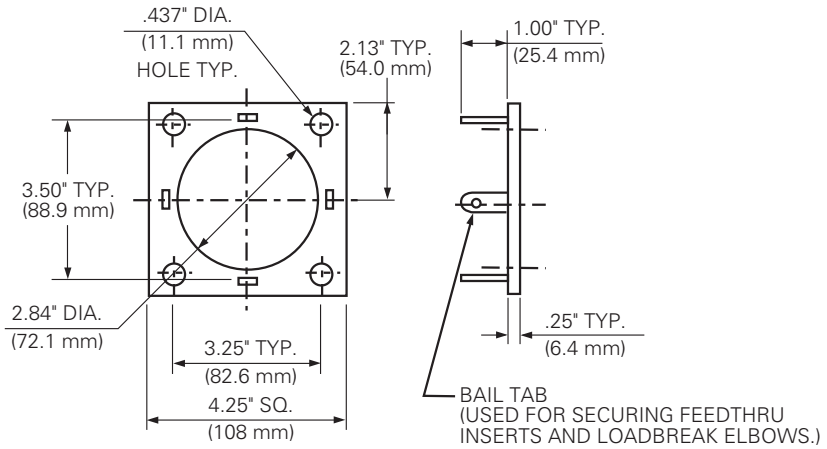

Figure 4. 4-Stud, 3.25 inch clamp.

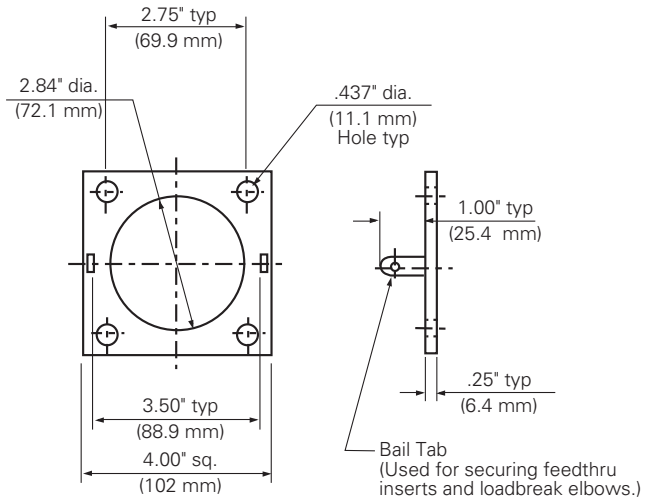

Figure 6. 4-Stud, 2.75 inch clamp.

Note: Dimensions given are for reference only.

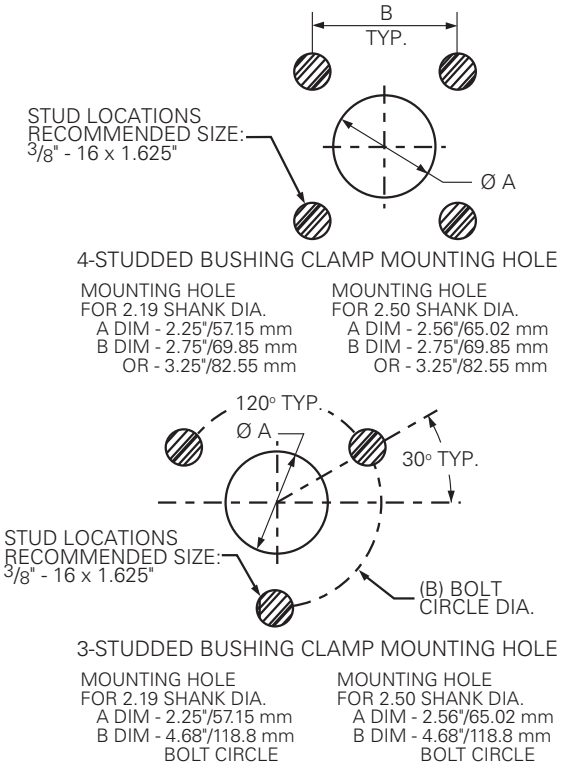

Figure 7. Recommended tank wall dimensions.

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Printed in USA
Publication No. CA800015EN

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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.