

# **Transformer Components**

## **200A Bushing Well**



## GENERAL

The Chardon 200A 35kV class bushing wall meets all requirements of IEEE Standard 386 for a separable insulated connector system. It is designed for terminating primary winding leads at the faceplate of oil-filled (or approved equivalents) single-phase and three-phase transformers and switchgear rated at 8.3/14.4kV, 15.2/26.3kV, 16.2/28.0 kV, and 21.1/36.6 kV.

The Chardon bushing well is externally mounted and clamped in place with either stainless steel or galvanized mild steel mounting clamps. It fits into a 2.56-inch (65mm) hole on the apparatus tank wall. The Chardon bushing well is designed to accept Chardon bushing inserts, as well as all others that meet IEEE Standard 386.

Its knurled copper stud, with rolled threads, ensures excellent conductivity.

Chardon bushing wells are molded in-house under Chardon's strict quality assurance procedures. The high-quality polymer provides excellent temperature stability, strength, durability, and low moisture absorption, while retaining critical mechanical and electrical properties in humid, high-temperature environments. The mounting gasket ensures a consistent, controlled compression seal of the bushing well to the apparatus tank wall.

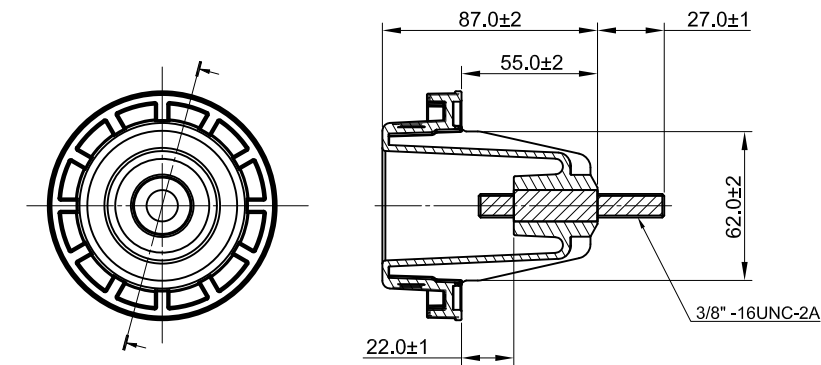


Figure 1: 200A Bushing Well with Embedded Stud

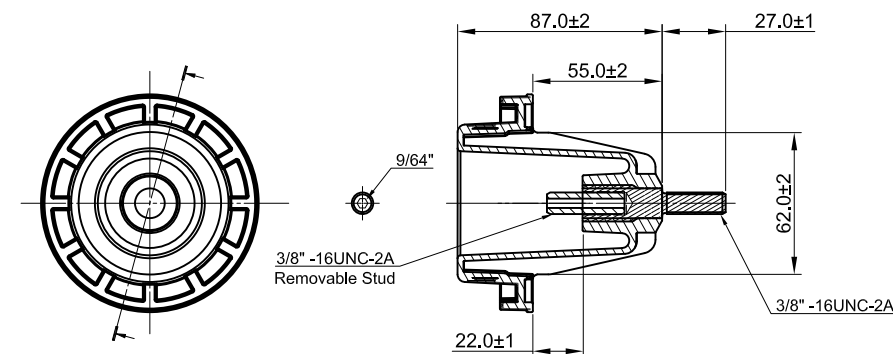


Figure 2: 200A Bushing Well with Removable Stud

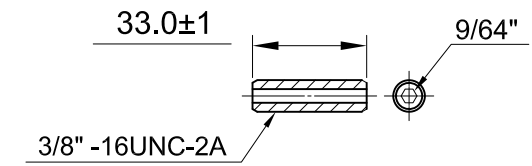


Figure 4: Removable Stud

## INSTALLATION

The Chardon bushing well is installed on the tank wall of the oil filled (or approved equivalents) transformer or switchgear. The rubber gasket is placed in the groove on the rear side of the bushing well (facing the transformer or switchgear). The steel clamp is then placed over the bushing well, and through the threaded studs mounted on the tank wall. The clamp is then bolted in place.

## PRODUCTION TESTS

- ✓ AC 60Hz 1 Minute Withstand – 26 kV
- ✓ Minimum Corona Voltage Level – 50 kV

### Internal Chardon Quality Assurance requirements:

- ✓ Physical Inspection
- ✓ Periodic Dissection
- ✓ Periodic Fluoroscopic (X-Ray) Inspection

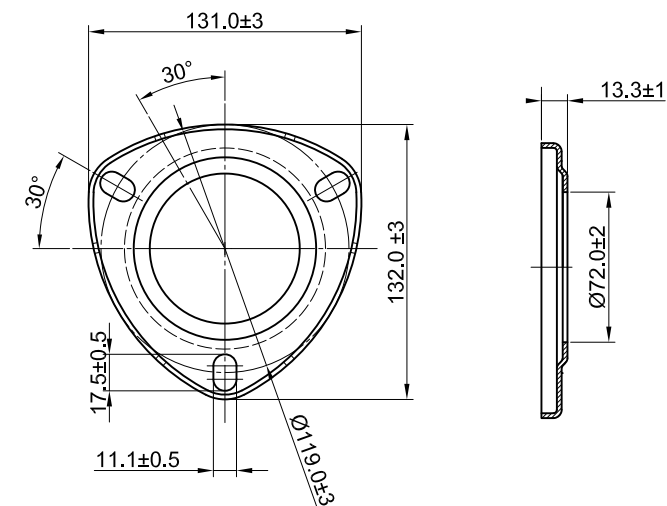


Figure 3: Stud Clamp with Flange (Zinc Dichromate Plate or Stainless Steel)

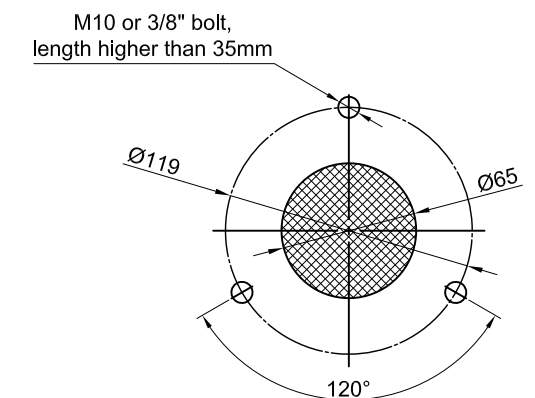


Figure 5: Recommended Tank Wall Dimensions

## VOLTAGE RATINGS

Standard Voltage Class	35 kV
Maximum Rating Phase-to -phase	36.6 kV
Maximum Rating Phase-to -ground	21.1 kV
Ac 60 Hz 1 Minute Withstand	50 kV
DC 15 Minute Withstand	103 kV
BIL and Full Wave Crest	150 kV
Minimum Corona Voltage Level	26 kV

## CURRENT RATINGS

Description	Test Parameters
Continuous	200 amps rms
Short Time	<ul style="list-style-type: none"> <li>• 10,000 amps rms symmetrical for 0.17 s</li> <li>• 3,500 amps rms symmetrical for 3.0 s</li> </ul>

• Revision Date: 03-31-2025

## ORDERING INFORMATION

To order a Chardon 200A Bushing Well, specify the clamp from Table 3.

Description	Catalog Number	Refer To Figure
Bushing Well - Zinc Dichromate Plated 3 Hole Clamp W/Embedded Stud	CH200BW3ZD	1+3
Bushing Well - Zinc Dichromate Plated 3 Hole Clamp W/Removable Stud	CH200BW3ZD-RV	2+3
Bushing Well - Stainless Steel 3 Hole Clamp W/Embedded Stud	CH200BW3SS	1+3
Bushing Well - Stainless Steel 3 Hole Clamp W/Removable Stud	CH200BW3SS-RV	2+3
Removable Stud	STUD-RV-BW	4





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