

# **Transformer Components 200A Integral Bushing Well**



CH200BWC

### **GENERAL**

The Chardon 200A, 15 kV, 25 kV, 28 kV, and 35 kV Class Integral Bushing Well aligns with the IEEE Standard 386 (separable insulated connector system) specifications. Specifically designed for the termination of primary winding leads at the face plate of oil-filled (or approved equivalents) single-phase and three-phase transformers and switchgear, it's rated for 8.3/14.4 kV, 15.2/26.3 kV, 16.2/28.0 kV (Canadian applications), and 21.1/36.6 kV.

Setting it apart from the standard variant, the Integral Bushing Well incorporates an external mounting mechanism with its integrated clamp design. This innovative feature removes the need for separate mounting clamps. Seamlessly fitting into a 2.56-inch (65mm) aperture on the apparatus tank wall, its compatibility extends to Chardon Bushing Inserts and any product adhering to the IEEE Standard 386. Its designed knurled copper stud, complemented by rolled threads, ensures optimal conductivity.

The Chardon Integral Bushing Well follows Chardon's rigorous quality standards, and is molded with high-quality polymer material, which offers excellent temperature resilience, structural strength, prolonged durability, minimal moisture absorption, and maintains mechanical and electrical attributes even in humid, high-temperature environments. Additionally, the integrated mounting gasket guarantees a uniform, controlled sealing compression between the bushing well and the apparatus tank wall.

### **INSTALLATION**

The Chardon Integral Bushing Well is seamlessly mounted onto the tank wall of the oil-filled (or approved equivalents) transformer or switchgear. Its design incorporates a rubber gasket that sits within a groove on its rear side, facing the equipment. Once positioned, the bushing well aligns with the threaded studs on the tank wall, and it is then fixed securely with the integrated clamp design.

## **PRODUCTION TESTS**

AC 60Hz 1 Minute Withstand – 50 kV

Minimum Corona Voltage Level – 26 kV

#### Internal Chardon Quality Assurance requirements:

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

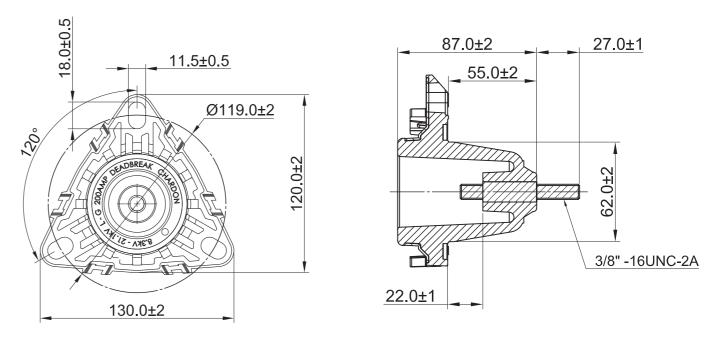


Fig. 1: 200A Bushing Well with Clamp Integrated



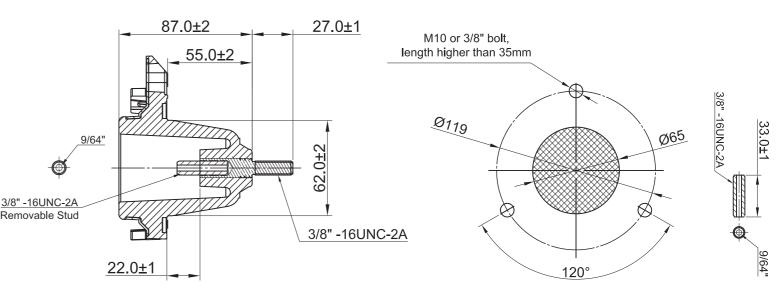


Fig. 3: 200A Bushing Well with Clamp & Removable Stud

# **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> <li>10,000 amps rms symmetrical for 0.17 s</li> <li>3,500 amps rms symmetrical for 3.0 s</li> </ul>	

· CH200BWC Revision date: 12/06/2023

### **ORDERING INFORMATION**

#### To order a Chardon 200A Integral Bushing Well, please refer to the following specifications:

Description	Catalog Number	Refer To Figure
Bushing Well with Clamp Integrated & Fixed Stud	CH200BWC	2
Bushing Well with Clamp Integrated & Removable Stud	CH200BWC-RV	3
Removable Stud	STUD-RV-BW	5

Fig. 2: 200A Bushing Well with Clamp Integrated & Embedded Stud

Fig. 4: Recommended Tank Wall Dimensions

Fig. 5: Removable Stud



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