

# INTRODUCING PCORE® OIL-FREE HIGH VOLTAGE PRC® BUSHINGS

PCORE® Electric now offers high voltage PRC® bushings available at 115kV and 138kV. These new units are the first PCORE bushings to offer non-ceramic insulators for customers that prefer that option.

Our Oil-Free PRC design is available with current ratings up to 2000A and provides the highest level of performance in both power transformers and oil circuit breakers.

A "smart numbering system", similar to our high voltage POC bushings, is being used for these new PRCs. The catalog number identifies the bushing type (PRC), BIL rating (e.g. 550), type of insulator (P for Polymer / G for Porcelain) and amperage (e.g. 0800 would equal 800A). Special bushing requirements are identified by a suffix.

#### FEATURES AND BENEFITS

- Resin-impregnated paper wound core with external porcelain or polymer insulator
- Uses a high quality insulater that is industry proven with an accepted design profile
- High-strength fiberglass tube outside of the resin core adds further protection to core from impact & vandalization
- Lower operating temperature designed to run cooler during standard operating conditions
- Transformer-Breaker Interchangeable (TBI)
- Able to be mounted at any angle
- 0.6% 0.8% C1 Power Factor (0.85% IEEE)
- Rated for High Altitude up to 10,000 feet
- High Seismic per IEEE 693-2018
- Extra high creep upper insulator
- Available per IEEE C57.19.00/01 and CSA C88.1 bushing standards



For more information about PCORE products & services, contact your local Hubbell representative or call our factory at 585-768-1200 or email us at bushings@hubbell.com



# FREQUENTLY ASKED QUESTIONS

### What advantages does this new PCORE<sup>®</sup> High Voltage PRC<sup>®</sup> bushing offer?

The standard design utilizes a polymer insulator with no oil inside the bushing for applications where either feature is desired. The new design can also incorporate a porcelain insulator and/or be filled with oil, providing multiple options for our customers with the same performance and reliability, and Transformer-Breaker Interchangeability, as our traditional POC® and PRC bushings.

#### How is the bushing designed and constructed?

The bushing cores are designed using the same methodology and materials as our existing Low Voltage Oil-Free PRCs, which meet all IEEE standard requirements. The only difference in the new High Voltage unit is the option to use our new polymer insulators.

In production since the 1970's, PRC technology is a proven and reliable industry leader.

#### How is the bushing manufactured and assembled?

Each bushing core is processed using our standard resin formulation. Once the cores are processed, they are stacked with the housing components in the same manner as our existing bushings and compressed using a spring basket with equal force as a comparable POC unit.

We have standardized the new PRC units around a hollow-core composite upper insulator. However, an interchangeable porcelain insulator can be used if desired.

After pressure testing, the bushings are filled with a dielectric gel, the same material used in our current low voltage Oil-Free PRCs.

### How do the dimensions of your new 115kV/138kV PRC units compare with your current 115kV/138kV POC models?

The below flange dimensions of the new PRCs are identical to our existing Series II POC models.

However, the PRC bushings are standardized around a high-altitude design, so they are approximately 12-15" longer above the flange. Specific draw lead adaptors are available to account for the difference in lengths where needed.

Further, the polymer insulator OD is ~1.5" larger.

These variations ensure the best performance for the oil-free PRC bushings.

#### Is the bushing seismically certified?

All PCORE bushings are seismically certified. PCORE PRC bushings with polymer insulators are qualified to the IEEE-693-2018 high seismic level by static pull test and designed to perform admirably in seismic applications.

## Why is PCORE Electric launching this new bushing type?

Both PCORE POC and PRC technologies meet the most stringent industry bushing standards and have decades of reliable service worldwide.

PCORE has been asked by leading companies in the industry to extend our reliable PRC technology to fill high-voltage requirements, while also integrating oilfree and polymer technologies.

For more FAQs related to Manufacturing, Handling and Application, visit **hubbellpowersystems.com** 

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