HUBBELL®
Power Systems

CATALOG

PCORE® Electric

Capacitance-Graded Bushings, Test Terminals and Services

HUBBELL

About Us

PCORE® Electric, an affiliate of Hubbell Power Systems Inc., is North America's only company 100% focused on the manufacturing of capacitance-graded bushings—and related components— for transformers and oil circuit breakers in the ANSI and CSA marketplace. In addition to our wide range of precision products, we offer in-factory diagnostic services and bushing repairs that enable our customers to maximize their equipment investment.

Formerly the Bushing Division of Lapp Insulator Company LLC, PCORE Electric is an ISO 9001-2015 certified supplier that continues to support all bushing products and remains committed to providing the highest quality and most reliable products supported by the outstanding level of service our customers have come to expect. That's ***The Power To Serve™***.

For more information about PCORE, visit us today at hubbellpowersystems.com.

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Replacement Bushings

Equipment life extension is a key consideration for utility companies. Maintaining a reliable system through its life cycle requires attention to many different components. A reliable source of replacement bushings is an important part of minimizing equipment downtime and maximizing operating revenue.

Standards for ANSI and CSA bushings define the critical bushing dimensions in order to simplify the replacement process. Therefore, the electrical and dimensional interchangeability is ensured for ANSI and CSA standard bushings made by several different manufacturers for transformer and oil circuit breaker applications.

PCORE uses a comparative analysis system to document and to guarantee dimensional and electrical interchangeability between the original bushing and the PCORE replacement bushing. The comparative analysis information includes key information such as the electrical characteristics, minimum oil level, above and below flange lengths and terminal connections.

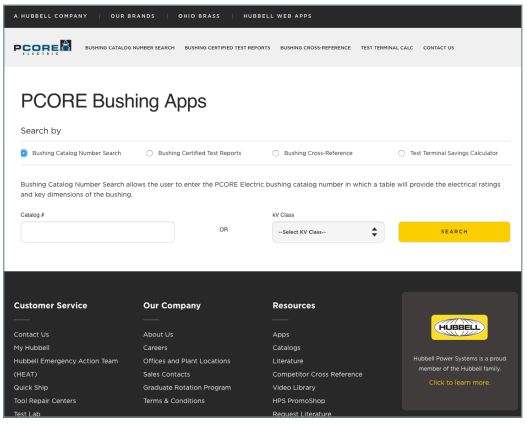
The comparative analysis along with the outline drawings of the bushing and adaptors (if required) are sent to the customer for review.

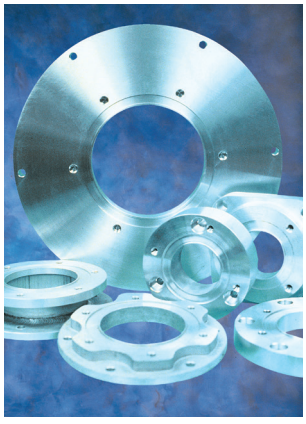
PCORE has an extensive collection of comparative analyses for ABB, General Electric, Lapp, Locke, McGraw-Edison, Ohio Brass, Trench and Westinghouse bushings. If changes to the suggested replacement bushing are desired (e.g., longer upper porcelain), the customer should make a specific request and the request will be reviewed and resolved.

For the convenience of our customers, the HPS website offers multiple online tools to assist with the bushing replacement process. Our Bushing Cross Reference Guide allows users to input as much, or as little, information that they may have about the existing bushing they are looking to replace. Depending on the amount of information entered, the system will provide a link to the critical dimensions of the likely PCORE replacement bushing or, in the case of minimal available information, to multiple links that the user can use to further narrow the field of options.

115kV Westinghouse Bushing

115kV PCORE® Replacement Bushing





PCORE® Flange Adaptors

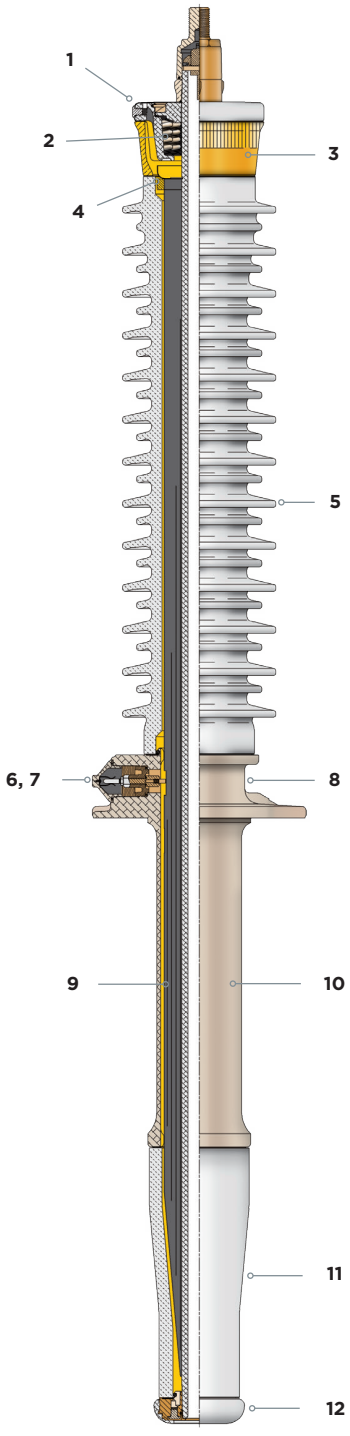
115kV Draw-Lead Adaptors

POC® Capacitance-Graded Bushings

PCORE® POC® (Paper-Oil-Capacitor) capacitance-graded bushings for transformer and oil circuit breaker applications are a proven design based on a capacitor core with aluminum foils and electrical grade kraft paper impregnated with dried, degassed oil. PCORE® POC® bushings meet all ANSI/IEEE test standards for outdoor apparatus bushings, where these standards apply for voltage classes 25kV through 500kV. When a transformer application results in overload, a bushing with a higher current rating is recommended.

Design Features:

1. **Gaskets:** Cork-nitrile rubber gaskets are designed to provide even loading and oiltight seals with extended life.
2. **High Compression Coil Springs:** Multiple heavy-duty coil springs provide uniform, active compressive loading on gaskets to compensate for temperature variations and to assure oil-tight joints and reliable mechanical strength.
3. **Clear-View Oil Reservoir (Medium and High Voltage Bushings):** The tinted glass oil reservoir filters damaging ultraviolet rays, preventing oil deterioration. The oil level and condition is clearly visible from any angle. The visibility is enhanced through PCORE's use of sight glass material with a fluted interior surface contour.
4. **Dried, Degassed Oil:** The internal space in the bushing between its exterior components and the core is filled with dried, degassed insulating oil.
5. **Porcelain Housing:** The outdoor porcelain housing has sturdy sheds to provide the required creep (leakage) and strike distance and has ground surfaces on top and bottom ends for oil-tight gasket seals.
6. **Test Tap (Medium Voltage Bushings):** 25kV through 69kV bushings have a power factor test tap. The test tap is connected to the ground layer of the capacitor core. An aluminum cap covers the insulated test tap assembly and grounds the tap to the flange.
7. **Voltage Tap (High and Extra High Voltage Bushings):** Bushings rated at 115kV and above have a permanent internal ground. In addition, an insulated tap is connected to a capacitor layer. This tap, designated as a voltage tap, is grounded except when used as a voltage source with a potential device. The voltage tap also serves as a means of measuring power factor and capacitance of the bushing core. The tap is ANSI/IEEE standard type A, normally grounded.
8. **Nameplate Data:** The nameplate affixed to the mounting flange identifies the bushing by catalog number, serial number and year of manufacture with electrical ratings and factory measurement data.
9. **Paper-Foil Capacitor Core:** Layers of aluminum foil with electrical grade kraft paper are wound around the center conductor and into the bushing core to produce uniformly valued capacitors in series. This capacitance grading distributes the voltage and the electrical field uniformly throughout the core. The core is vacuumdried and impregnated with dried, degassed oil.
10. **Mounting Flange, Ground Sleeve Assembly:** The mounting flange and ground sleeve assembly is made of aluminum and provides nonmagnetic, corrosion-resistant, high strength service.
11. **Lower Porcelain Assembly:** The lower porcelain has ground gasket surfaces on each end to facilitate alignment and maintain an oil-tight assembly.
12. **Bottom Cap Assembly:** A confined cork-nitrile rubber gasket provides a leak-proof seal between the porcelain and the cap. The end cap aligns the porcelain with the conductor. For bushings rated 115kV through 161kV, the bottom cap is adaptable for use in draw-lead and bottom-connected applications.



POC® Bushings 25kV – 69kV

PCORE® POC® 88 Series bushings are available from 25kV through 69kV with current ratings from 400/1200A to 7000A. These bushings are interchangeable between transformer and oil circuit breaker applications. The 400/1200A interchangeable bushings are designed to be used either for 400A draw-lead applications or 1200A bottom-connected applications.

These POC bushings can be mounted up to 60 degrees from vertical without the use of a external oil reservoir. An external oil reservoir must be used in applications from 60 degrees to the horizontal position. An external oil reservoir is specified by adding the '-03' suffix to the basic catalog number.

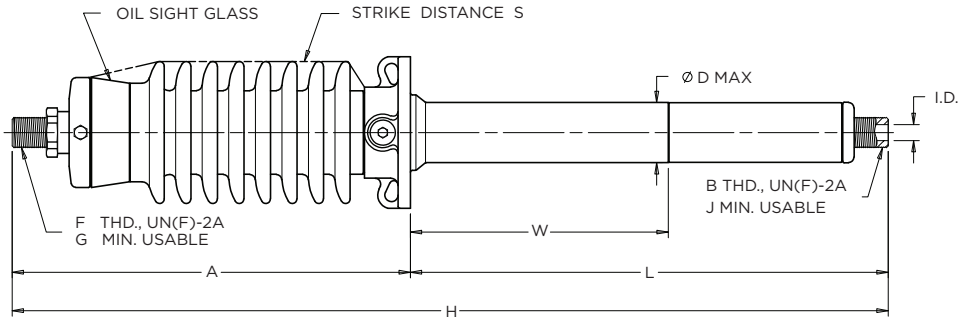
Standard Features:

- Paper Oil Capacitor wound core with external upper and lower porcelain insulators
- Transformer-Breaker Interchangeable (TBI) bushings
- High altiitude - 10,000 feet
- Minimum oil levels / CT pockets of 16.50 and 21.00
- Designed per IEEE C57.19.00/01
- 0.2% - 0.3% C1 Power Factor (0.5% IEEE limit)

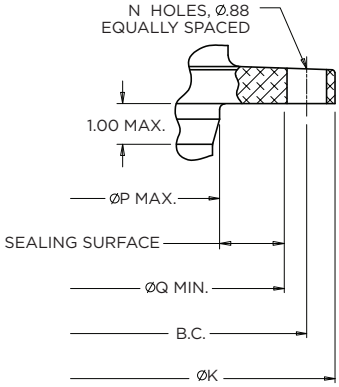
Voltage Class (kV)	Bushing Catalog Number	Current Rating (Amperes)	BIL (kV)	Min. Oil Level (W)	Min. Creep	Min. Strike (S)	Overall Length (H)	Length Above Flange (A)	Length Below Flange (L)	"D" Max	Draw-Lead Above Flange Length	Top Terminal	
												Thd. Size (F)	Min. Thd. (G)
25	**B-88713-70**	400/1200	150	21.00	19.50	11.00	50.00	20.50	29.50	3.12	16.56	1-1/2 - 12	2.50
	B-88722-70	2000	150	16.50	19.50	11.00	44.38	18.38	26.00	3.12	–	1-1/2 - 12	2.12
	B-88723-70	2000	150	21.00	19.50	11.00	47.88	18.38	29.50	3.12	–	1-1/2 - 12	2.12
	B-88732-70	3000	150	16.50	20.00	11.00	44.75	18.75	26.00	4.00	–	1-1/2 - 12	2.12
	B-88733-70	3000	150	21.00	20.00	11.00	48.25	18.75	29.50	4.00	–	2 - 12	2.12
	B-88742-70	4000	150	16.50	19.50	11.00	47.12	20.12	27.00	5.25	–	3 - 12	3.00
	B-88743-70	4000	150	21.00	19.50	11.00	50.62	20.12	30.50	5.25	–	3 - 12	3.00
	B-88752-70	5000	150	16.50	20.00	11.00	49.62	20.12	29.50	7.00	–	4 - 12	3.00
	B-88753-70	5000	150	21.00	20.00	11.00	53.12	20.12	33.00	7.00	–	4 - 12	3.00
	B-88762-70	6000	150	16.50	20.00	11.00	49.62	20.12	29.50	7.00	–	4 - 12	3.00
	B-88763-70	6000	150	21.00	20.00	11.00	53.12	20.12	33.00	7.00	–	4 - 12	3.00
	B-88772-70	7000	150	16.50	22.50	13.00	55.25	25.75	29.50	8.88	–	5 - 12	6.00
	B-88773-70	7000	150	21.00	22.50	13.00	59.75	25.75	34.00	8.88	–	5 - 12	6.00
34.5	**B-88813-70**	400/1200	200	21.00	30.00	14.00	55.63	24.13	31.50	43.50	20.19	1-1/2 - 12	2.50
	B-88822-70	2000	200	16.50	30.00	14.00	50.00	22.00	28.00	3.50	–	1-1/2 - 12	2.12
	B-88823-70	2000	200	21.00	30.00	14.25	53.50	22.00	31.50	3.50	–	1-1/2 - 12	2.12
	B-88832-70	3000	200	16.50	30.50	14.00	50.50	22.50	28.00	4.00	–	2 - 12	2.12
	B-88833-70	3000	200	21.00	30.50	14.00	53.94	22.44	31.50	4.00	–	2 - 12	2.12
	B-88842-70	4000	200	16.50	29.50	14.00	52.75	23.75	29.00	5.25	–	3 - 12	3.00
	B-88843-70	4000	200	21.00	29.50	14.00	56.25	23.75	32.50	5.25	–	3 - 12	3.00
	B-88852-70	5000	200	16.50	30.00	14.00	55.25	23.75	31.50	7.00	–	4 - 12	3.00
	B-88853-70	5000	200	21.00	30.00	14.00	58.75	23.75	35.00	6.50	–	4 - 12	3.00
46	**B-88913-70**	400/1200	250	21.00	37.50	18.00	62.19	28.69	33.50	4.00	24.75	1-1/2 - 12	2.50
	B-88922-70	2000	250	16.50	37.50	18.00	56.56	26.56	30.00	4.00	–	1-1/2 - 12	2.12
	B-88923-70	2000	250	21.00	37.50	18.00	60.06	26.56	33.50	4.00	–	1-1/2 - 12	2.12
	B-88932-70	3000	250	16.50	37.50	18.00	56.56	26.56	30.00	5.25	–	2 - 12	2.12
	B-88933-70	3000	250	21.00	37.50	18.00	60.06	26.56	33.50	5.25	–	2 - 12	2.12
	B-88942-70	4000	250	16.50	37.50	18.00	58.88	27.88	31.00	6.50	–	3 - 12	3.00
	B-88943-70	4000	250	21.00	37.50	18.00	62.38	27.88	34.50	6.50	–	3 - 12	3.00
	B-88952-70	5000	250	16.50	41.00	18.00	61.88	28.38	33.50	7.50	–	4 - 12	3.00
69	**B-88013-70**	400/1200	350	21.00	54.00	24.00	72.56	35.06	37.50	5.25	31.12	1-1/2 - 12	2.50
	B-88022-70	2000	350	16.50	54.00	24.00	65.19	32.94	32.25	5.25	–	1-1/2 - 12	2.12
	B-88023-70	2000	350	21.00	54.00	24.00	70.44	32.94	37.50	5.25	–	1-1/2 - 12	2.12
	B-88032-70	3000	350	16.50	53.50	24.00	65.50	33.25	32.25	6.50	–	2 - 12	2.12
	B-88033-70	3000	350	21.00	53.50	24.00	70.75	33.25	37.50	6.50	–	2 - 12	2.12

Notes: 1) All Dimensions on table are in inches. 2) Additional designs are available. Contact PCORE® for details.

POC® Bushings 25kV – 69kV



BUSHING DETAIL



MOUNTING FLANGE DETAIL

Bottom Terminal		Stud I.D.	Sealing Surface		Flange		
Thd. Size (B)	Min. Thd. (J)		I.D. (P)	O.D. (Q)	No. Holes	B.C.	O.D. (K)
1-1/2 - 12	2.12	0.88	4.00	6.25	4	7.25	8.50
1-1/2 - 12	2.12	–	4.00	6.25	4	7.25	8.50
1-1/2 - 12	2.12	–	4.00	6.25	4	7.25	8.50
2 - 12	2.12	–	5.00	7.25	4	8.25	10.00
2 - 12	2.12	–	5.00	7.25	4	8.25	10.00
3 - 12	3.00	–	6.00	8.25	6	9.25	11.00
3 - 12	3.00	–	6.00	8.25	6	9.25	11.00
(1)Blade, (6) 0.56 Holes, 1.75 Vertical Spacing		–	7.00	9.25	6	10.25	13.25
(1)Blade, (6) 0.56 Holes, 1.75 Vertical Spacing		–	7.00	9.25	6	10.25	13.25
(1)Blade, (6) 0.56 Holes, 1.75 Vertical Spacing		–	7.00	9.25	6	10.25	13.25
(1)Blade, (6) 0.56 Holes, 1.75 Vertical Spacing		–	7.00	9.25	6	10.25	13.25
(1)Blade, (6) 0.56 Holes, 1.75 Vertical Spacing		–	8.88	11.25	8	12.25	17.00
(1)Blade, (6) 0.56 Holes, 1.75 Vertical Spacing		–	8.88	11.25	8	12.25	17.00
1-1/2 - 12	2.13	0.88	4.00	6.25	4	7.25	8.50
1-1/2 - 12	2.12	–	4.00	6.25	4	7.25	8.50
1-1/2 - 12	2.12	–	4.00	6.25	4	7.25	8.50
2 - 12	2.12	–	5.00	7.25	4	8.25	10.00
2 - 12	2.12	–	5.00	7.25	4	8.25	10.00
3 - 12	3.00	–	6.00	8.25	6	9.25	11.00
3 - 12	3.00	–	6.00	8.25	6	9.25	11.00
(1)Blade, (6) 0.56 Holes, 1.75 Vertical Spacing		–	7.00	9.25	6	10.25	13.25
(1)Blade, (6) 0.56 Holes, 1.75 Vertical Spacing		–	7.00	9.25	6	10.25	13.25
1-1/2 - 12	2.12	0.88	5.00	7.25	4	8.25	10.00
1-1/2 - 12	2.12	–	5.00	7.25	4	8.25	10.00
1-1/2 - 12	2.12	–	5.00	7.25	4	8.25	10.00
2 - 12	2.12	–	6.00	8.25	6	9.25	11.00
2 - 12	2.12	–	6.00	8.25	6	9.25	11.00
3 - 12	3.00	–	7.00	9.25	6	10.25	13.25
3 - 12	3.00	–	7.00	9.25	6	10.25	13.25
(1)Blade, (6) 0.56 Holes, 1.75 Vertical Spacing		–	8.00	10.00	6	11.25	13.50
1-1/2 - 12	2.12	0.88	6.00	8.25	6	9.25	11.00
1-1/2 - 12	2.12	–	6.00	8.25	6	9.25	11.00
1-1/2 - 12	2.12	–	6.00	8.25	6	9.25	11.00
2 - 12	2.12	–	7.00	9.25	6	10.25	13.25
2 - 12	2.12	–	7.00	9.25	6	10.25	13.25

POC® Bushings 115kV – 230kV

PCORE® POC® Series II TBI bushings provide a high level of performance in both power transformers and oil circuit breakers. The high seismically certified PCORE POC® bushings are available in voltage classes from 115kV through 230kV with current ratings from 800A through 6000A. These bushings provide the maximum interchangeability between transformer and oil circuit breaker applications with the same basic bushing.

PCORE® POC® high voltage bushings can be mounted vertically and tilted up to 60 degrees from the vertical without the use of an external oil reservoir. A remotely mounted external oil reservoir must be used for applications from 60° to the horizontal position.

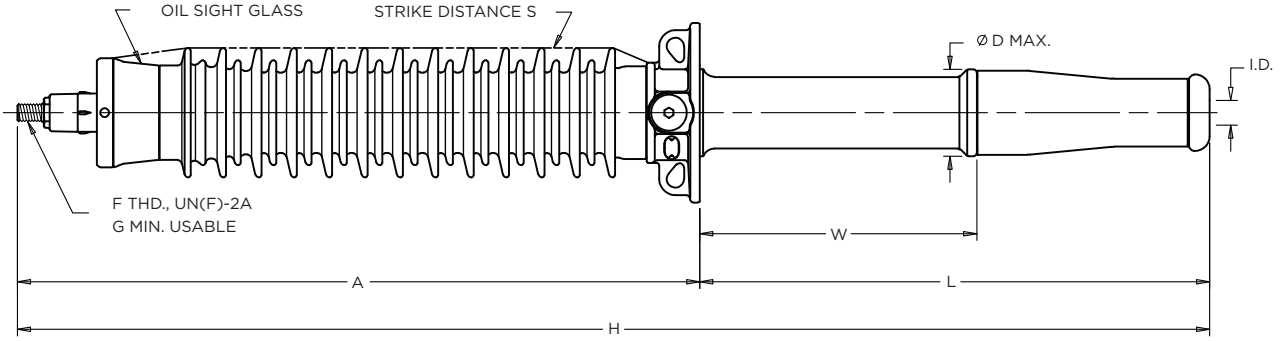
A "smart numbering system" has been developed for the POC Series II TBI bushing line. The catalog number identifies the bushing type (POC), BIL rating (e.g., 650), porcelain glaze ("G" for gray) and amperage (e.g., 0800 would equal 800A). Special bushing requirements are identified by a suffix.

Standard Features:

- Paper-Oil-Capacitor wound core with external upper and lower porcelain insulators
- Transformer-Breaker Interchangeable (TBI) bushings
- High altitude - 10,000 feet
- Minimum oil levels / CT pockets of 23.00 (115kV-161kV) and 26.75 for 230kV
- High seismic per IEEE 693 - 2018
- Designed per IEEE C57.19.00/01

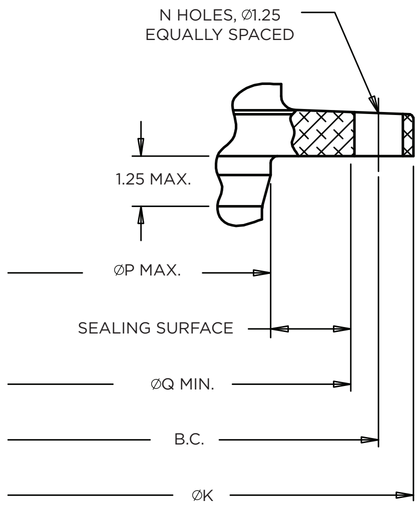
Voltage Class (kV)	Bushing Catalog Number	Current Rating (Amperes)		BIL kV	Min. Oil Level (W)	Min. Creep	Min. Strike (S)	Overall Length (H)	Length Above Flange (A)	Length Below Flange (L)	"D" Max	Draw-Lead Above Flange	Top Terminal	
		Trans.	OCB										Thd. Size (F)	Min. Thd. (G)
		65°C Rise	40°C Rise											
115	POC550G0800S	800	—	550	23.00	100.00	45.50	100.88	57.88	43.00	7.38	53.62	1-1/2 - 12	2.00
	POC550G1216RS	1200	1600	550	23.00	100.00	45.50	100.88	57.88	43.00	7.75	—	1-1/2 - 12	2.00
	POC550G2500RS	2500	2500	550	23.00	100.00	45.50	99.75	56.75	43.00	7.75	—	1-1/2 - 12	2.50
	POC550G3000S	3000	3500	550	23.00	100.00	45.50	100.25	57.25	43.00	8.25	—	2 - 12	3.00
	POC550G3500S	3500	4000	550	23.00	126.00	55.00	107.69	64.69	43.00	8.00	—	3 - 12	3.00
138	POC650G0800S	800	—	650	23.00	126.00	54.00	113.38	66.62	46.75	8.00	62.38	1-1/2 - 12	2.00
	POC650G1216RS	1200	1600	650	23.00	126.00	54.00	113.38	66.62	46.75	8.00	—	1-1/2 - 12	2.00
	POC650G2500RS	2500	2500	650	23.00	126.00	54.00	112.25	65.50	46.75	8.00	—	1-1/2 - 12	2.50
	POC650G3000S	3000	3500	650	23.00	126.00	54.00	112.75	66.00	46.75	8.25	—	2 - 12	3.00
	POC650G3500S	3500	4000	650	23.00	126.00	54.00	112.75	66.00	46.75	8.25	—	3 - 12	3.00
161	POC750G0800S	800	—	750	23.00	161.00	65.00	128.19	77.94	50.25	8.88	73.69	1-1/2 - 12	2.00
	POC750G1216RS	1200	1600	750	23.00	161.00	65.00	128.19	77.94	50.25	8.88	—	1-1/2 - 12	2.00
	POC750G2500RS	2500	2500	750	23.00	161.00	65.00	127.06	76.81	50.25	8.88	—	1-1/2 - 12	2.50
	POC750G3000S	3000	3500	750	23.00	161.00	65.00	127.56	77.31	50.25	8.88	—	2 - 12	3.00
230	POC900G0800S	800	—	900	26.75	230.00	78.00	149.94	90.44	59.50	10.13	86.19	1-1/2 -12	2.00
	POC900G1216S	1200	1600	900	26.75	230.00	78.00	149.94	90.44	59.50	10.13	—	1-1/2 -12	2.00
	POC900G2500S	2500	2500	900	26.75	230.00	78.00	148.81	89.31	59.50	10.13	—	1-1/2 -12	2.50
	POC900G3000S	3000	3500	900	26.75	230.00	78.00	149.31	89.81	59.50	10.13	—	2 - 12	3.00
	POC900M4000S	4000	4500	900	26.75	230.00	72.50	148.00	88.50	59.50	10.13	—	3 - 12	3.00

Notes: 1) All Dimensions on table are in inches. 2) Additional designs are available. Contact PCORE® for details.



BUSHING DETAIL

POC® Bushings 115kV – 230kV



MOUNTING FLANGE DETAIL

Bottom Terminal		Stud I.D.	Sealing Surface		Flange		
No. Holes and Thread Size	End Cap O.D.		I.D. (P)	O.D. (Q)	No. Holes	B.C.	O.D. (K)
(4) 3/8-12 Holes, 3.75 B.C.	6.50	1.62	7.38	11.88	6	13.25	15.25
(4) 3/8-16 Holes on 3.75 B.C. and (8) 1/2-13 Holes on 6.75 B.C., 4.00 Spherical Radius	7.75	—	7.38	11.88	6	13.25	15.25
(4) 3/8-16 Holes on 3.75 B.C. and (8) 1/2-13 Holes on 6.75 B.C., 4.00 Spherical Radius	7.75	—	7.38	11.88	6	13.25	15.25
(4) 3/8-16 Holes on 3.75 B.C. and (8) 1/2-13 Holes on 6.75 B.C., 4.00 Spherical Radius	8.25	—	8.25	11.88	6	13.25	15.25
(4) 3/8-16 Holes on 3.75 B.C. and (8) 1/2-13 Holes on 6.75 B.C., 4.00 Spherical Radius	8.25	—	8.00	11.88	6	13. 25	15.25
(4) 3/8-12 Holes, 3.75 B.C.	6.50	1.62	8.00	12.88	6	14.25	16.25
(4) 3/8-16 Holes on 3.75 B.C. and (8) 1/2-13 Holes on 6.75 B.C., 4.00 Spherical Radius	7.75	—	8.00	12.88	6	14.25	16.25
(4) 3/8-16 Holes on 3.75 B.C. and (8) 1/2-13 Holes on 6.75 B.C., 4.00 Spherical Radius	7.75	—	8.00	12.88	6	14.25	16.25
(4) 3/8-16 Holes on 3.75 B.C. and (8) 1/2-13 Holes on 6.75 B.C., 4.00 Spherical Radius	8.25	—	8.00	12.88	6	14.25	16.25
(4) 3/8-16 Holes on 3.75 B.C. and (8) 1/2-13 Holes on 6.75 B.C., 4.00 Spherical Radius	8.25	—	8.00	12.88	6	14.25	16.25
(4) 3/8-12 Holes, 3.75 B.C.	6.50	1.62	8.88	14.38	8	15.75	17.75
(4) 3/8-16 Holes on 3.75 B.C. and (8) 1/2-13 Holes on 6.75 B.C., 4.00 Spherical Radius	7.75	—	8.88	14.38	8	15.75	17.75
(4) 3/8-16 Holes on 3.75 B.C. and (8) 1/2-13 Holes on 6.75 B.C., 4.00 Spherical Radius	7.75	—	8.88	14.38	8	15.75	17.75
(4) 3/8-16 Holes on 3.75 B.C. and (8) 1/2-13 Holes on 6.75 B.C., 4.00 Spherical Radius	8.25	—	8.88	14.38	8	15.75	17.75
(4) 3/8-16 Holes on 3.75 B.C. and (8) 1/2-13 Holes on 6.75 B.C., 4.00 Spherical Radius	8.25	2.00	10.13	19.63	12	21.00	23.00
(4) 3/8-16 Holes on 3.75 B.C. and (8) 1/2-13 Holes on 6.75 B.C., 4.00 Spherical Radius	8.25	—	10.13	19.63	12	21.00	23.00
(4) 3/8-16 Holes on 3.75 B.C. and (8) 1/2-13 Holes on 6.75 B.C., 4.00 Spherical Radius	8.25	—	10.13	19.63	12	21.00	23.00
(4) 3/8-16 Holes on 3.75 B.C. and (8) 1/2-13 Holes on 6.75 B.C., 4.00 Spherical Radius	8.25	—	10.13	19.63	12	21.00	23.00
(4) 3/8-16 Holes on 3.75 B.C. and (8) 1/2-13 Holes on 6.75 B.C., 4.00 Spherical Radius	8.25	—	10.13	19.63	12	21.00	23.00

POC® Bushings 345kV – 500kV

PCORE® POC® Series II 345kV and 500kV bushings provide a high level of performance in EHV applications. The EHV POC® bushings are available in voltage classes from 345kV through 500kV with current ratings from 800A through 3500A.

PCORE's 345kV - 500kV bushings have been certified to the highest seismic performance level as specified in the IEEE-STD-693-2005 by time-history shake table testing. PCORE is the only porcelain bushing manufacture to meet and exceed the high seismic performance level in which PCORE's 500kV design passed a 2.5 G time-history shake table test.

A "smart numbering system" has been developed for the POC Series II TBI bushing line. The catalog number identifies the bushing type (POC), BII rating (e.g., 1175), porcelain glaze ("G" for gray) and amperage (e.g., 0800 would equal 800A). Special bushing requirements are identified by a suffix.

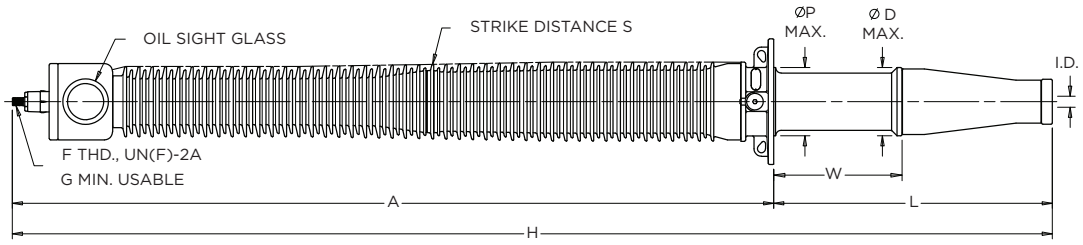
Standard Features:

- Paper Oil Capacitor wound core with external upper and lower porcelain insulators
- Transformer-Breaker Interchangeable (TBI) bushings
- High altitude - 10,000 feet
- Minimum oil levels / CT pockets of 23.00 (115kV-161kV) and 26.75 for 230kV
- High seismic per IEEE 693 - 2018
- Designed per IEEE C57.19.01/00
- 0.2% - 0.3% C1 Power Factor (0.5% IEEE limit)

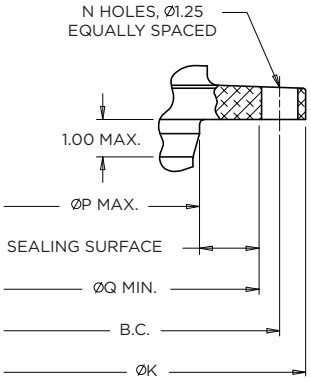
Voltage Class kV	Bushing Catalog Number	Current Rating (Amperes)		BIL (kV)	Min. Oil Level (W)	Min. Creep	Min. Strike (S)	Overall Length (H)	Length Above Flange (A)	Length Below Flange (L)	"D" Max	Draw-Lead Above Flange	Top Terminal	
		Trans.	OCB										Thd. Size (F)	Min. Thd. (G)
		65° C Rise	40° C Rise											
345	**POC1175G0800S**	800	—	1175	23.00	345.00	115.00	190.38	139.38	51.00	12.50	135.00	1-1/2 - 12	2.00
	POC1175G1216S	1200	1600	1175	23.00	345.00	115.00	190.38	139.38	51.00	12.50	—	1-1/2 - 12	2.00
	POC1175G2000S	2000	2500	1175	23.00	345.00	115.00	189.25	138.25	51.00	12.50	—	1-1/2 - 12	2.50
	POC1175G3000S	3000	3500	1175	23.00	345.00	115.00	189.75	138.75	51.00	12.50	—	2 - 12	3.00
345	**POC1300G0800Y30**	800	—	1300	23.00	345.00	115.00	190.38	139.38	51.00	12.50	135.00	1-1/2 - 12	2.00
	POC1300G1216Y30	1200	1600	1300	23.00	345.00	115.00	190.38	139.38	51.00	12.50	—	1-1/2 - 12	2.00
	POC1300G2000Y30	2000	2500	1300	23.00	345.00	115.00	189.25	138.25	51.00	12.50	—	1-1/2 - 12	2.50
	POC1300G3000Y30	3000	3500	1300	23.00	345.00	115.00	189.75	138.75	51.00	12.50	—	2 - 12	3.00
500	**POC1675G0800S**	800	—	1675	23.00	526.00	135.00	227.75	162.75	65.00	16.75	158.00	1-1/2 - 12	2.50
	POC1675G2000S	2000	2500	1675	23.00	526.00	135.00	227.75	162.75	65.00	16.75	—	1-1/2 - 12	2.50
	POC1675G2500S	2500	3000	1675	23.00	526.00	135.00	227.75	162.75	65.00	16.75	—	1-1/2 - 12	2.50

Notes: 1) All Dimensions on table are in inches. 2) Additional designs are available. Contact PCORE® for details.

POC® Bushings 345kV – 500kV



BUSHING DETAIL



MOUNTING FLANGE DETAIL

Bottom Terminal		Stud I.D.	Sealing Surface		Flange		
No. Holes and Thread Size	End Cap O.D.		I.D. (P)	O.D. (Q)	No. Holes	B.C.	O.D. (K)
(8)1/2 - 13 Holes on 6.75 B.C.	8.25	2.00	12.50	19.63	12	21.00	23.00
(8)1/2 - 13 Holes on 6.75 B.C.	8.25	—	12.50	19.63	12	21.00	23.00
(8)1/2 - 13 Holes on 6.75 B.C.	8.25	—	12.50	19.63	12	21.00	23.00
(8)1/2 - 13 Holes on 6.75 B.C.	8.25	—	12.50	19.63	12	21.00	23.00
(8)1/2 - 13 Holes on 6.75 B.C.	8.25	2.00	12.50	19.63	12	21.00	23.00
(8)1/2 - 13 Holes on 6.75 B.C.	8.25	—	12.50	19.63	12	21.00	23.00
(8)1/2 - 13 Holes on 6.75 B.C.	8.25	—	12.50	19.63	12	21.00	23.00
(8)1/2 - 13 Holes on 6.75 B.C.	8.25	—	12.50	19.63	12	21.00	23.00
(8)1/2 - 13 Holes on 6.75 B.C.	10.00	2.50	17.38	23.63	12	25.00	27.00
(8)1/2 - 13 Holes on 6.75 B.C.	10.00	—	17.38	23.63	12	25.00	27.00
(8)1/2 - 13 Holes on 6.75 B.C.	10.00	—	17.38	23.63	12	25.00	27.00

CSA Standard POC® Bushings 123kV - 300kV

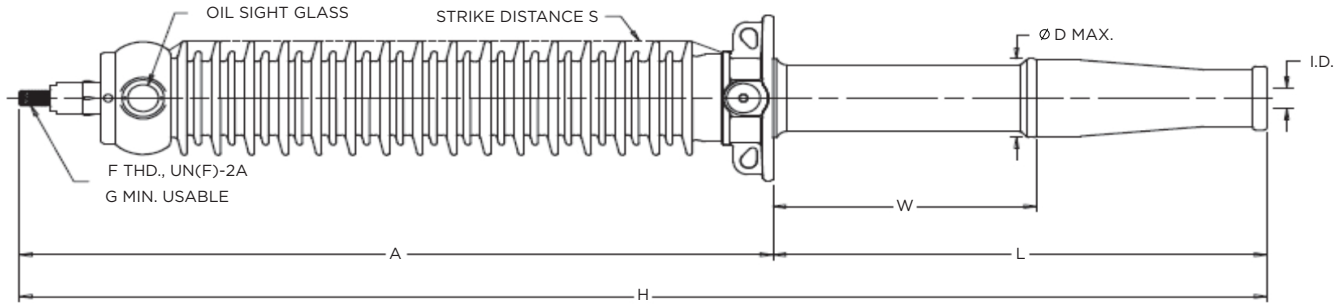
PCORE offers POC® Series II Canadian Standard bushing designs at 123kV and 145kV with minimum oil levels of 23.63". PCORE's POC® 86 Series designs are available at 245kV and 300kV with minimum oil levels of 29.50". Designs rated up to 600A can be used in the draw lead application and higher current ratings would be bottom connected.

As with all PCORE bushings, the CSA standard designs are interchangeable between transformer and oil circuit breaker applications.

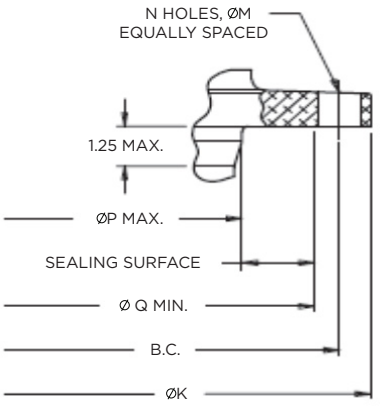
Standard Features:

- Paper Oil Capacitor wound core with external porcelain insulator
- Designed per CAN / CSA-C88.1-2018
- Transformer-Breaker Interchangeable (TBI) bushings
- 0.2% - 0.3% Power Factor (limit per standard 0.5%)
- High creep upper porcelain

123kV and 145kV



BUSHING DETAIL



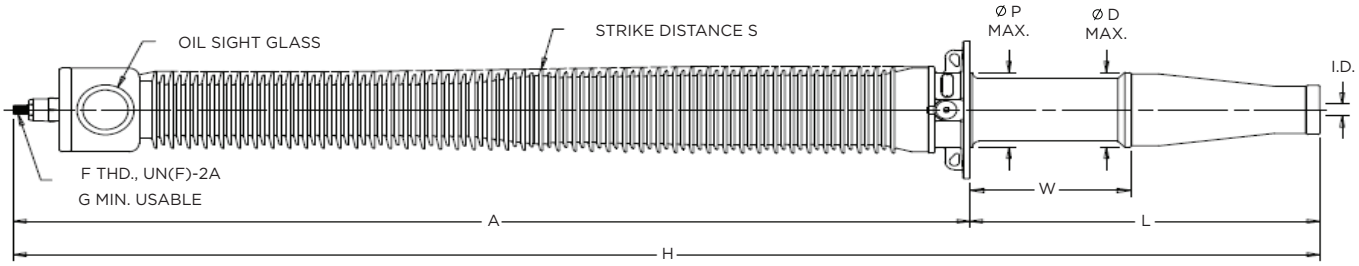
MOUNTING FLANGE DETAIL

Voltage Class (kV)	Bushing Catalog Number	Current Rating (Amperes)	BIL (kV)	Min. Oil Level (W)	Min. Creep	Min. Strike (S)	Overall Length	Length Above Flange (H)	Length Below Flange (L)	"D" Max	Draw-Lead Above Flange Length	Top Terminal	
												Thd. Size (F)	Min. Thd. (G)
123	**CPOC550M0600S**	600	550	23.63	126.00	46.00	111.13	67.13	44.00	8.00	23.63	1-1/2 - 12	2.50
	CPOC550M1200S	1200	550	23.63	126.00	46.00	111.13	67.13	44.00	8.00	—	1-1/2 - 12	2.50
	CPOC550M2500S	2500	550	23.63	126.00	46.00	110.50	66.50	44.00	8.00	—	2 - 12	3.50
145	**CPOC650M0600S**	600	650	23.63	161.00	60.00	122.44	78.44	44.00	8.88	23.63	1-1/2 - 12	2.50
	CPOC650M1200S	1200	650	23.63	161.00	60.00	122.44	78.44	44.00	8.88	—	1-1/2 - 12	2.50
	CPOC650M2500S	2500	650	23.63	161.00	60.00	121.81	77.81	44.00	8.88	—	2 - 12	3.50
245	**B-86500-70**	600	950	29.50	235.00	81.00	162.50	100.50	62.00	12.00	23.63	1-1/2 - 12	2.50
	B-86510-70	1200	950	29.50	235.00	81.00	162.50	100.50	62.00	12.38	—	1-1/2 - 12	2.50
300	**B-86600-70**	600	1050	29.50	263.00	103.00	199.50	129.50	70.00	14.75	23.63	1-1/2 - 12	2.50
	B-86610-70	1200	1050	29.50	263.00	103.00	199.50	129.50	70.00	14.75	—	1-1/2 - 12	2.50

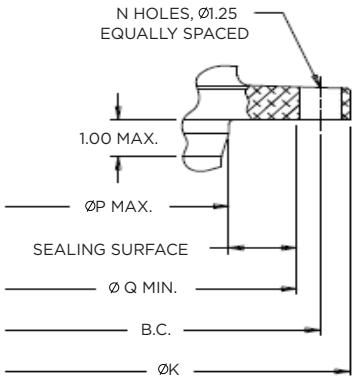
Notes: 1) All Dimensions on table are in inches. 2) Additional designs are available. Contact PCORE® for details.

CSA Standard POC® Bushings 123kV - 300kV

245kV and 300kV



BUSHING DETAIL



MOUNTING FLANGE DETAIL

Bottom Terminal		Stud I.D.	Flange Sealing Surface		Flange		
No. Holes and Thread Size	End Cap O.D.		I.D. (P)	O.D. (Q)	No. Holes (N)	B.C.	O.D. (K)
(8)M12 X 1.75 Holes on 5.00 B.C.	6.50	1.63	8.00	13.88	8	15.00	16.75
(8)M12 X 1.75 Holes on 5.00 B.C.	6.50	–	8.00	13.88	8	15.00	16.75
(8)M12 X 1.75 Holes on 5.00 B.C.	6.50	–	8.00	13.88	8	15.00	16.75
(8)M12 X 1.75 Holes on 5.00 B.C.	6.50	1.63	8.88	13.88	8	15.00	17.75
(8)M12 X 1.75 Holes on 5.00 B.C.	6.50	–	8.88	13.88	8	15.00	17.75
(8)M12 X 1.75 Holes on 5.00 B.C.	6.50	–	8.88	13.88	8	15.00	17.75
(8)M12 X 1.75 Holes on 6.75 B.C.	9.00	2.25	12.38	22.13	12	23.50	25.50
(8)M12 X 1.75 Holes on 6.75 B.C.	9.00	–	12.38	22.13	12	23.50	25.50
(8)M12 X 1.75 Holes on 6.75 B.C.	9.00	2.25	15.50	22.13	12	23.50	25.50
(8)M12 X 1.75 Holes on 6.75 B.C.	9.00	–	15.50	22.13	12	23.50	25.50

Quick-Link™ Bushings 25kV – 138kV

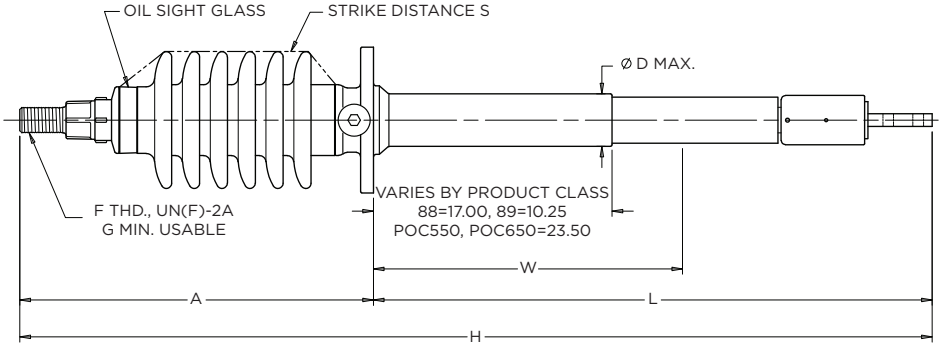
The PCORE® Quick-Link™ bushing is a patented design to assist electric utilities and power transformer manufacturers when they are faced with having to use a bottom-connected bushing to carry higher application currents of 1,200A or more with the convenience of a draw-lead bushing. The use of a Quick-Link bushing allows for simpler and quicker field installation and removal of a bushing, just like a tradional draw-lead bushing. For new applications, this would allow the transformer to be shipped with the bottom connection in place, which can save time and thousands of dollars in field service work.

Standard Features:

- Installation and removal similar to “draw lead” type bushings.
- Proven multiple contact connector transferring current from bottom terminal to the bushing conductor.
- PCORE Quick-Link mechanism can withstand short circuit current of up to 25 times the rated current.
- The Quick-Link system has been proven to maintain its full rating after more than 500 operations.
- The Quick-Link system has no internal connections that could overheat or become loose.
- Installation is made by simply connecting the rod and pulling through the bushing.
- No special tools or specific torque values are required. Overall bushing diameter is reduced because the current is carried by the bushing rather than a draw-lead or draw-rod.
- The Quick-Link rod is much lighter weight than typical draw-leads or draw-rods, making installation and removal more convenient.

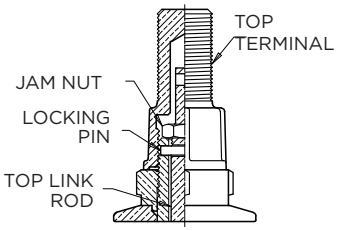
Voltage Class (kV)	Bushing Catalog Number	Type	Current Rating (Amperes)	BIL kV	Min. Oil Level (W)	Min. Creepage	Min. Strike Distance (S)	Overall Length (H)	Length Above Flange (A)	Length Below Flange (L)	“D” Max
25	**B-88713-200-70**	POC	1200	150	21.00	19.50	11.00	56.56	20.50	36.06	3.12
	B-88723-204-70	POC	2000	150	21.00	20.00	11.00	56.94	20.88	36.06	4.00
	B-89293-200-70	PRC	1200	150	21.00	31.00	13.00	56.62	20.62	36.00	3.12
	B-89253-200-70	PRC	2000	150	21.00	27.50	14.00	56.62	20.62	36.00	4.00
	B-88753-218-70	POC	5000	150	21.00	30.00	14.00	56.75	23.75	33.00	6.50
34.5	**B-88813-200-70**	POC	1200	200	21.00	30.00	14.00	62.19	24.12	38.06	3.50
	B-89393-200-70	PRC	1200	200	21.00	41.00	17.00	62.12	24.12	38.00	3.12
	B-89353-200-70	PRC	2000	200	21.00	37.50	17.00	62.12	24.12	38.00	4.00
46	**B-88913-200-70**	POC	1200	250	21.00	37.50	18.00	68.75	28.69	40.06	4.00
	B-89493-200-70	PRC	1200	250	21.00	49.00	21.00	68.62	28.62	40.00	4.00
	B-89453-200-70	PRC	2000	250	21.00	49.00	21.00	68.62	28.62	40.00	4.00
69	**B-88013-200-70**	POC	1200	350	21.00	54.00	24.00	79.12	35.06	44.06	5.25
	B-89593-200-70	PRC	1200	350	21.00	69.50	30.00	80.88	36.88	44.00	4.00
	B-89553-200-70	PRC	2000	350	21.00	69.50	30.00	80.88	36.88	44.00	5.00
115	**POC550G1216CSX216**	POC	1200	550	23.00	100.00	45.50	106.75	57.88	48.88	7.38
	POC550G1216CSX217	POC	1200	550	23.00	100.00	45.50	108.5	57.88	50.62	7.38
	POC550G2000CSX216	POC	2000	550	23.00	100.00	45.50	106.75	57.88	48.88	7.38
	POC550G2000CSX217	POC	2000	550	23.00	100.00	45.50	108.50	57.88	50.62	7.38
138	**POC650G1216CSX216**	POC	1200	650	23.00	126.00	54.00	119.25	66.63	52.62	8.00
	POC650G1216CSX217	POC	1200	650	23.00	126.00	54.00	121.00	66.63	54.38	8.00

Notes: 1) All Dimensions on table are in inches. 2) Additional designs are available. Contact PCORE® for details.

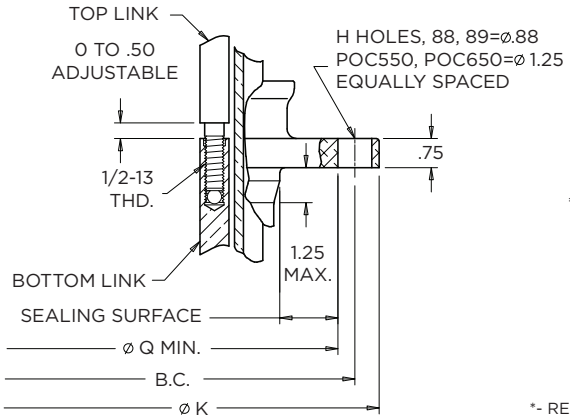


TYPICAL BUSHING DETAIL WILL VARY BASED ON PRODUCT DETAIL

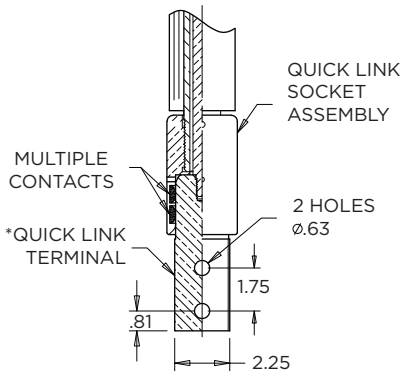
Quick-Link™ Bushings 25kV – 138kV



TOP LINK TERMINAL DETAIL



MOUNTING FLANGE DETAIL



TYPICAL BOTTOM BLADE DETAIL

*- REFER TO SALES DRAWING FOR SPECIFIC BOTTOM TERMINAL DETAILS. NUMBER OF HOLES AND LOCATION IN BLADE WILL VARY BASED ON CURRENT RATING AND KV CLASS. APPLICATIONS FOR KV CLASSES 115 AND ABOVE INCLUDE BOTTOM SHIELD

Top Terminal		Bottom Terminal Characteristics	Sealing Surface		Flange Details		
Thd. Size (F)	Min. Usable (G)		I.D. (P)	O.D. (Q)	No. Holes	Bolt Circle	O.D. (K)
1-1/2 - 12	2.50	2-Hole Blade - Vertical Orientation - 1.75 Hole Spacing	4.00	6.25	4	7.25	8.50
2 - 12	2.50	2-Hole Blade - Vertical Orientation - 1.75 Hole Spacing	5.00	7.25	4	8.25	10.00
1-1/2 - 12	2.50	2-Hole Blade - Vertical Orientation - 1.75 Hole Spacing	3.38	6.25	4	7.25	8.50
2 - 12	2.50	2-Hole Blade - Vertical Orientation - 1.75 Hole Spacing	4.50	6.25	4	7.25	10.62
4 - 12	2.50	6-Hole Blade - Horizontal Orientation - 1.25 Hole Spacing	7.00	9.25	6	10.25	13.25
1-1/2 - 12	2.50	2-Hole Blade - Vertical Orientation - 1.75 Hole Spacing	4.00	6.25	4	7.25	8.50
1-1/2 - 12	2.50	2-Hole Blade - Vertical Orientation - 1.75 Hole Spacing	3.38	6.25	4	7.25	8.50
2 - 12	2.50	2-Hole Blade - Vertical Orientation - 1.75 Hole Spacing	4.50	6.25	4	7.25	10.62
1-1/2 - 12	2.50	2-Hole Blade - Vertical Orientation - 1.75 Hole Spacing	5.00	7.25	4	8.25	10.00
1-1/2 - 12	2.50	2-Hole Blade - Vertical Orientation - 1.75 Hole Spacing	4.50	7.25	4	8.25	10.62
2 - 12	2.50	2-Hole Blade - Vertical Orientation - 1.75 Hole Spacing	4.50	7.25	4	8.25	10.62
1-1/2 - 12	2.50	2-Hole Blade - Vertical Orientation - 1.75 Hole Spacing	6.00	5.25	6	9.25	11.00
1-1/2 - 12	2.50	2-Hole Blade - Vertical Orientation - 1.75 Hole Spacing	4.50	8.25	6	9.25	10.62
2 - 12	2.50	2-Hole Blade - Vertical Orientation - 1.75 Hole Spacing	5.00	8.25	6	9.25	10.62
1-1/2 - 12	2.00	2-Hole Blade - Horizontal Orientation - 1.75 Hole Spacing	7.38	11.88	6	13.25	15.25
1-1/2 - 12	2.00	2-Hole Blade - Vertical Orientation - 1.75 Hole Spacing	7.38	11.88	6	13.25	15.25
1-1/2 - 12	2.00	2-Hole Blade - Horizontal Orientation - 1.75 Hole Spacing	7.38	11.88	6	13.25	15.25
1-1/2 - 12	2.00	2-Hole Blade - Vertical Orientation - 1.75 Hole Spacing	7.38	11.88	6	13.25	15.25
1-1/2 - 12	2.00	2-Hole Blade - Horizontal Orientation - 1.75 Hole Spacing	8.00	12.88	6	14.25	16.25
1-1/2 - 12	2.00	2-Hole Blade - Vertical Orientation - 1.75 Hole Spacing	8.00	12.88	6	14.25	16.25

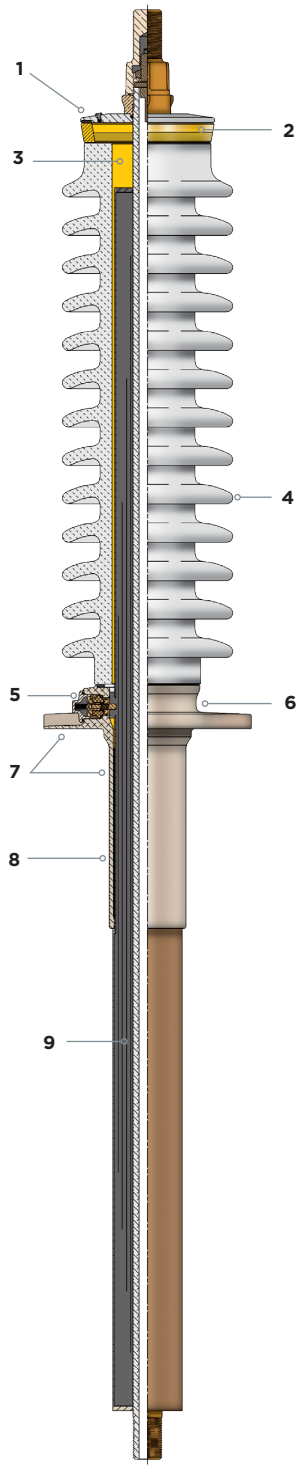
PCORE® QUICK-LINK™ BUSHING
POC550G1216CSX21
(bottom corona shield not shown in photo)

Low Voltage PRC® Capacitance-Graded Bushings

PCORE® PRC® (Paper-Resin-Capacitor) capacitance-graded bushings for transformer and oil circuit breaker applications are a proven design based on a capacitor core with conductive layers and electrical grade paper impregnated with electrical grade epoxy resin. PCORE® PRC® bushings meet all ANSI/IEEE test standards for outdoor apparatus bushings, where these standards apply, for voltage classes 15kV through 69kV. When a transformer application results in overload, a bushing having a higher current rating is recommended.

Design Features:

1. **Gaskets:** Cork-nitrile rubber gaskets aredesigned to provide uniform, active loading to compensate for temperature variations and to assure oil-tight joints, reliable mechanical strength and extended life.
2. **Clear-View Oil Reservoir:** The tinted glass oil reservoir filters damaging ultraviolet rays, preventing oil deterioration. The oil level and condition are clearly visible from any angle. The Oil Reservoir is replaced with metal cap in oil-free design.
3. **Dried, Degassed Oil:** The internal space in the bushing above the flange and between the porcelain and core is filled with dried, degassed insulating oil. For the oil-free design, the oil is replaced with a dielectric gel.
4. **Porcelain Housing:** The outdoor porcelain housing has sturdy sheds to provide required creep (leakage) and strike distance and has ground surfaces on top and bottom ends for oil-tight gasket seals.
5. **Test Tap:** 15kV through 69kV bushings have a test tap. The test tap is connected to the ground layer of the capacitor core. An aluminum cap covers the insulated test tap assembly and grounds the tap to the flange when energized.
6. **Nameplate Data:** The nameplate affixed to the mounting flange identifies the bushing by catalog number, serial number and year of manufacture with electrical ratings and factory measurement data.
7. **Mounting Flange, Ground Sleeve Assembly:** The mounting flange and ground sleeve assembly are made of aluminum and provides nonmagnetic, corrosion-resistant, high-strength service.
8. **Flange-Core Potting Compound:** Once cured, the slightly resilient potting compound mechanically holds the flangecore assembly together and is an excellent shock absorber under dynamic cantilever loading.
9. **Paper-Foil Capacitor Core:** Conductive layers with electrical grade paper are wound around the center conductor and into the bushing core to produce uniformly valued capacitors in series. This capacitance grading distributes the voltage and the electrical field uniformly throughout the core. The core is vacuum-dried and impregnated with electrical grade epoxy resin.



Unique Features of PCORE® PRC® Bushing Core:

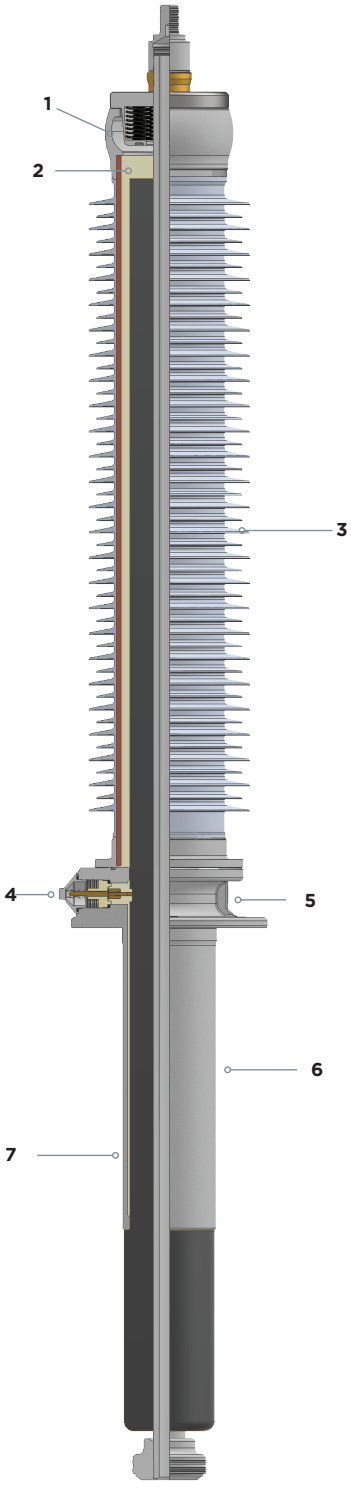
- Vacuum-impregnated with epoxy resin to provide a solid, void-free structure not subject to layer separation or internal partial discharge as are resin bonded cores.
- Totally encapsulated with epoxy resin that is impervious to harmful conductive particle intrusion (i.e., water, carbon, etc.), unlike the surfaces of varnished paper cores, which crack due to aging.
- Proven by more than 50 years of outstanding field service.

High Voltage PRC® Capacitance-Graded Bushings

PCORE® High Voltage PRC® Paper-Resin-Capacitor) capacitance-graded bushings for transformer and oil circuit breaker applications are a proven design based on a capacitor core with conductive layers and electrical grade paper impregnated with electrical grade epoxy resin. PCORE® HV PRC® bushings meet all ANSI/IEEE test standards for outdoor apparatus bushings, where these standards apply, for voltage classes 115kV through 138kV. When a transformer application results in overload, a bushing with a higher current rating is recommended.

Design Features:

1. **High Compression Coil Springs:** Multiple heavy-duty coil springs provide uniform, active compressive loading on bushing components to compensate for temperature variations and to assure the tightest joints and reliable mechanical strength.
2. **Dielectric Gel:** The internal space in the bushing between the insulator housing and core is filled with a dielectric gel.
3. **Polymer Housing:** The standard HV design features a polymer insulator with fiberglassreinforced tube which provides extra mechanical strength. Porcelain insulators can be used if the customer prefers.
4. **Voltage Tap:** Bushings rated at 115kV and above have a permanent internal ground. In addition, an insulated tap is connected to a capacitor layer. This tap, designated as a voltage tap, is grounded except when used as a voltage source with a potential device. The voltage tap also serves as a means of measuring power factor and capacitance of the bushing core. The tap is ANSI/IEEE standard type A, normally grounded.
5. **Nameplate Data:** The nameplate affixed to the mounting flange identifies the bushing by catalog number, serial number and year of manufacture with electrical ratings and factory measurement data.
6. **Mounting Flange, Ground Sleeve Assembly:** The mounting flange and ground sleeve assembly are made of aluminum and provide nonmagnetic, corrosion-resistant, high strength service.
7. **Paper-Foil Capacitor Core:** Conductive layers with electrical grade paper are wound around the center conductor and into the bushing core to produce uniformly valued capacitors in series. This capacitance grading distributes the voltage and the electrical field uniformly throughout the core. The core is vacuum-dried and impregnated with electrical grade epoxy resin.



PRC® Bushings 15kV – 69kV

PCORE® PRC® bushings are available for voltage classes from 15kV through 69kV and fully interchangeable between transformer and oil circuit breaker applications. PRC bushings are available for use in draw-lead applications at 400A or 600A. The higher current ratings apply when the bushing is bottom-connected in a power transformer or oil circuit breaker. PCORE PRC bushings are available in oil-filled and oil-free designs.

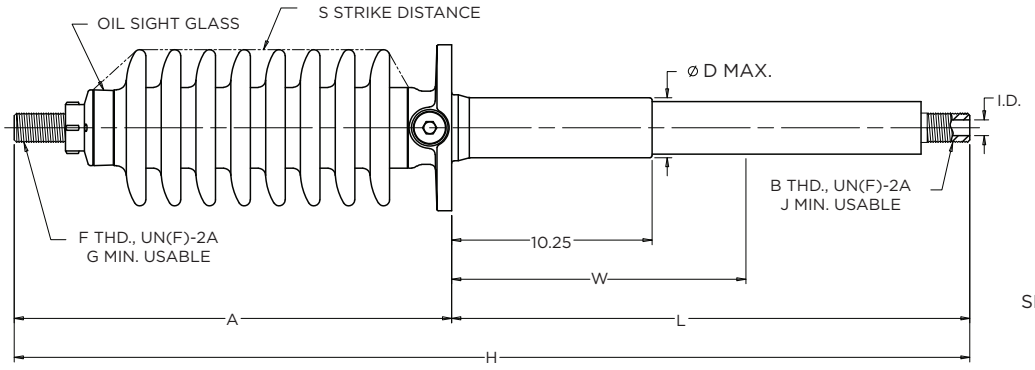
Standard Features:

- Resin-impregnated paper wound core with external porcelain insulator
- Standard with high creep upper porcelain
- Transformer-Breaker interchangeable (TBI)
- HIgh Seismic per IEEE 693-2018
- 0.6% - 0.8% C1 Power Factor (0.85% IEEE)
- Available per IEEE C57.19.00/01 bushing standards

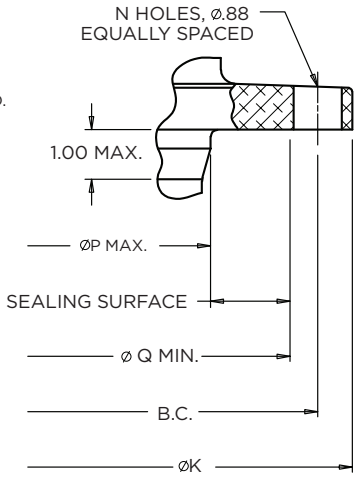
Voltage Class (kV)	Oil-Filled Bushing Catalog Number	Oil-Free Bushing Catalog Number	Current Rating (Amperes)	BIL (kV)	Min. Oil Level / CT Pocket Length (W)	Min. Creepage	Min. Strike Distance (S)	Overall Length (H)	Length Above Flange (A)	Length Below Flange (L)	"D" Max
15	B-89111-70	PRC110F1200B	1200	110	16.50	17.50	10.00	38.00	15.00	23.00	2.62
	B-89112-70	PRC110F1200C	1200	110	10.00	17.50	10.00	31.50	15.00	16.50	2.62
	B-89113-70	PRC110F1200A	1200	110	21.00	17.50	10.00	42.50	15.00	27.50	2.62
	B-89121-70	PRC110F2000B	2000	110	16.50	21.00	10.00	38.75	15.25	23.50	3.12
	B-89122-70	PRC110F2000C	2000	110	10.00	21.00	10.00	32.25	15.25	17.00	3.12
	B-89123-70	PRC110F2000A	2000	110	21.00	21.00	10.00	43.25	15.25	28.00	3.12
	B-89131-70	PRC110F3000B	3000	110	16.50	20.50	10.25	40.75	16.25	24.50	5.00
	B-89132-70	PRC110F3000C	3000	110	10.00	20.50	10.25	34.25	16.25	18.00	5.00
	B-89133-70	PRC110F3000A	3000	110	21.00	20.50	10.25	45.25	16.25	29.00	5.00
	B-89181-70	PRC110F0600B	600	110	16.50	21.00	10.00	37.00	17.00	20.00	3.12
	B-89182-70	PRC110F0600C	600	110	10.00	21.00	10.00	30.50	17.00	13.50	3.12
	B-89183-70	PRC110F0600A	600	110	21.00	21.00	10.00	41.50	17.00	24.50	3.12
25	B-89201-70	PRC150F0400B	400	150	16.50	31.00	13.00	43.62	20.62	23.00	3.12
	B-89211-70	PRC150F1200B	1200	150	16.50	31.00	13.00	42.38	18.88	23.50	3.12
	B-89212-70	PRC150F1200C	1200	150	10.00	31.00	13.00	35.88	18.88	17.00	3.12
	B-89221-70	PRC150F2000B	2000	150	16.50	27.50	14.00	42.50	18.50	24.00	4.00
	B-89223-70	PRC150F2000A	2000	150	21.00	27.50	14.00	48.00	18.50	29.50	4.00
	B-89293-70	PRC150F0412A	400/1200	150	21.00	31.00	13.00	50.12	20.62	29.50	3.12
34.5	B-89301-70	PRC200F0400B	400	200	16.50	41.00	17.00	49.12	24.12	25.00	3.12
	B-89311-70	PRC200F1200B	1200	200	16.50	41.00	17.00	51.88	22.38	29.50	3.12
	B-89312-70	PRC200F1200C	1200	200	10.00	41.00	17.00	41.38	22.38	19.00	3.12
	B-89321-70	PRC200F2000B	2000	200	16.50	37.50	17.00	48.00	22.00	26.00	4.00
	B-89323-70	PRC200F2000A	2000	200	21.00	37.50	17.50	53.50	22.00	31.50	4.00
	B-89393-70	PRC200F0412A	400/1200	200	21.00	41.00	17.00	55.62	24.12	31.50	3.12
46	B-89401-70	PRC250F0400B	400	250	16.50	49.00	21.00	55.62	28.62	27.00	4.00
	B-89411-70	PRC250F1200B	1200	250	16.50	49.00	21.00	58.38	26.88	31.50	4.00
	B-89421-70	PRC250F2000B	2000	250	16.50	49.00	21.50	56.50	26.50	30.00	4.00
	B-89423-70	PRC250F2000A	2000	250	21.00	49.00	21.00	60.00	26.50	33.50	4.00
	B-89493-70	PRC250F0412A	400/1200	250	21.00	49.00	21.00	62.12	28.62	33.50	4.00
69	B-89501-70	PRC350F0400B	400	350	16.50	69.50	30.00	67.38	36.88	30.50	4.00
	B-89511-70	PRC350F1200B	1200	350	16.50	69.50	30.00	68.62	35.12	33.50	4.00
	B-89521-70	PRC350F2000B	2000	350	16.50	69.50	30.00	68.25	34.75	33.50	5.00
	B-89523-70	PRC350F2000A	2000	350	21.00	69.50	30.00	72.25	34.75	37.50	5.00
	B-89593-70	PRC350F0412A	400/1200	350	21.00	69.50	30.00	74.38	36.88	37.50	4.00

Notes: 1) All Dimensions on table are in inches. 2) Additional designs are available. Contact PCORE® for details.

PRC® Bushings 15kV – 69kV



BUSHING DETAIL



MOUNTING FLANGE DETAIL

Draw-Lead Above Flange Length	Top Terminal		Bottom Terminal		Stud I.D.	Flange Sealing Surface		Flange Details		
	Thd. Size (F)	Min. Thd. (G)	Thd. Size (H)	Min. Thd. (K)		I.D. (P)	O.D. (Q)	No. of Holes	Bolt Circle	O.D. (T)
–	1-1/8 - 12	2.12	1-1/8-12	2.12	–	3.38	5.12	4	6.00	8.50
–	1-1/8 - 12	2.12	1-1/8-12	2.12	–	3.38	5.12	4	6.00	8.50
–	1-1/8 - 12	2.12	1-1/8-12	2.12	–	3.38	5.12	4	6.00	8.50
–	1-1/2 - 12	2.12	1-1/2 - 12	2.12	–	3.38	6.38	4	7.25	8.50
–	1-1/2 - 12	2.12	1-1/2 - 12	2.12	–	3.38	6.38	4	7.25	8.50
–	1-1/2 - 12	2.12	1-1/2 - 12	2.12	–	3.38	6.38	4	7.25	8.50
–	3 - 12	3.00	3 - 12	3.00	–	5.25	8.38	6	9.25	10.62
–	3 - 12	3.00	3 - 12	3.00	–	5.25	8.38	6	9.25	10.62
–	3 - 12	3.00	3 - 12	3.00	–	5.25	8.38	6	9.25	10.62
13.50	1-1/8 - 12	2.00	–	–	1.50	3.38	5.12	4	6.00	8.50
13.50	1-1/8 - 12	2.00	–	–	1.50	3.38	5.12	4	6.00	8.50
13.50	1-1/8 - 12	2.00	–	–	1.50	3.38	5.12	4	6.00	8.50
16.75	1-1/8 - 12	2.50	–	–	1.00	3.38	6.38	4	7.25	8.50
–	1-1/2 - 12	2.50	1-1/2 - 12	2.12	–	3.38	6.38	4	7.25	8.50
–	1-1/2 - 12	2.50	1-1/2 - 12	2.12	–	3.38	6.38	4	7.25	8.50
–	2 - 12	2.12	2 - 12	2.12	–	4.50	6.38	4	7.25	10.62
–	2 - 12	2.12	2 - 12	2.12	–	4.50	6.38	4	7.25	10.62
16.75	1-1/2 - 12	2.50	1-1/2 - 12	2.12	0.88	3.38	6.38	4	7.25	8.50
20.25	1-1/8 - 12	2.50	–	–	1.00	3.38	6.38	4	7.25	8.50
–	1-1/2 - 12	2.50	1-1/2 - 12	2.12	–	3.38	6.38	4	7.25	8.50
–	1-1/2 - 12	2.50	1-1/2 - 12	2.12	–	3.38	6.38	4	7.25	8.50
–	2 - 12	2.12	2 - 12	2.12	–	4.50	6.38	4	7.25	10.62
–	2 - 12	2.12	2 - 12	2.12	–	4.50	6.38	4	7.25	10.62
20.25	1-1/2 - 12	2.50	1-1/2 - 12	2.12	0.88	3.38	6.38	4	7.25	8.50
24.75	1-1/8 - 12	2.50	–	–	1.00	4.50	7.38	4	8.25	10.62
–	1-1/2 - 12	2.50	1-1/2 - 12	2.12	–	4.50	7.38	4	8.25	10.62
–	2 - 12	2.12	2 - 12	2.12	–	4.50	7.38	4	8.25	10.62
–	2 - 12	2.12	2 - 12	2.12	–	4.50	7.38	4	8.25	10.62
24.75	1-1/2 - 12	2.50	1-1/2 - 12	2.12	0.88	4.50	7.38	4	8.25	10.62
33.00	1-1/8 - 12	2.50	–	–	1.00	4.50	8.38	6	9.25	10.62
–	1-1/2 - 12	2.50	1-1/2 - 12	2.12	–	4.50	8.38	6	9.25	10.62
–	2 - 12	2.12	2 - 12	2.12	–	5.25	8.38	6	9.25	10.62
–	2 - 12	2.12	2 - 12	2.12	–	5.25	8.38	6	9.25	10.62
33.00	1-1/2 - 12	2.50	1-1/2 - 12	2.12	0.88	4.50	8.38	6	9.25	10.62

PCORE® OIL-FREE PRC® BUSHING

PRC® Bushings 115kV – 138kV

PCORE High Voltage PRC® bushings are available for voltage classes from 115kV through 138kV and provide a high level of performance in both power transformers and oil circuit breakers with current ratings up to 2000A.

Our PRC Oil-Free design can be mounted at any angle and these new units are the first PCORE bushings to offer nonceramic insulators for customers who prefer that option.

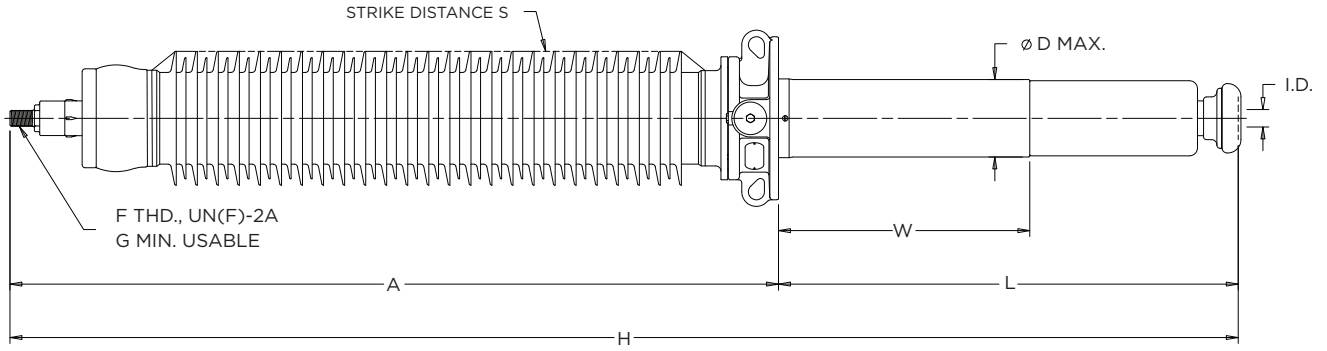
A "smart numbering system" has been developed for these high voltage PRC bushings. The catalog number identifies the bushing type (PRC), BIL rating (e.g. 550), type of insulator and amperage (e.g. 0800 would equal 800A). Special bushing requirements are identified by a suffix.

Standard Features:

- Available in both Oil-Free and Oil-Filled designs
- High-strength fiberglass tube outside of the resin core adds further protection to core from impact and vandalization
- Lower operating temperature designed to run cooler during standard operating conditions
- Resin-impregnated paper wound core with external porcelain or polymer insulator
- Uses a high quality insulator that is industry proven with an accepted design profile
- Transformer-Breaker Interchangeable (TBI)
- 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

Voltage Class (kV)	Bushing Catalog Number	Current Rating (A)		BIL kV	Min. Oil Level (W)	Min. Creep	Min. Strike (S)	Overall Length (H)	Length Above Flange (A)	Length Below Flange (L)	"D" Max	Draw-Lead Above Flange Length
		Trans. 65°C Rise	O.C.B 40°C Rise									
115	**PRC550P0800S**	800	–	550	23.00	185.00	52.00	114.88	71.88	43.00	7.31	67.63
	PRC550P1216RS	1200	1600		23.00	185.00	52.00	114.88	71.88	43.00	7.31	–
	PRC550P2000RS	2000	2500		23.00	185.00	52.00	113.75	70.75	43.00	7.31	–
138	**PRC650P0800S**	800	–	650	23.00	215.00	61.00	128.13	81.38	46.75	7.81	77.06
	PRC650P1216RS	1200	1600		23.00	215.00	61.00	128.13	81.38	46.75	7.81	–
	PRC650P2000RS	2000	2500		23.00	215.00	61.00	127.00	80.25	46.75	7.81	–

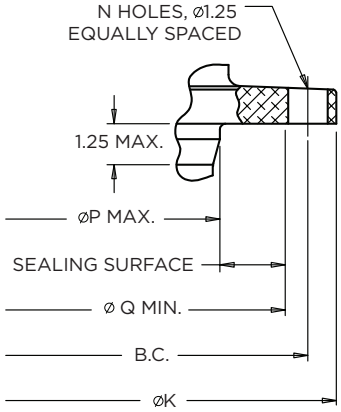
Notes: 1) All Dimensions on table are in inches. 2) Additional designs are available. Contact PCORE® for details.



BUSHING DETAIL

HUBBELL® Power Systems

PRC® Bushings 115kV – 138kV



MOUNTING FLANGE DETAIL

Top Terminal		Bottom Terminal	End Cap O.D.	Stud I.D.	Flange Sealing Surface		Flange Details		
Thd. Size (F)	Min. Thd. (G)	No. Holes and Thread Size			I.D. (P)	O.D. (Q)	No. Holes	Bolt Circle	O.D. (K)
1-1/2 - 12	2.00	(4) 3/8-16 Holes on 3.75 B.C.	6.50	1.63	7.38	11.88	6	13.25	15.25
1-1/2 - 12	2.00	(4) 3/8-16 Holes on 3.75 B.C. and (8) 1/2-13 Holes on 6.75 B.C., 4.00 Spherical Radius	7.75	-	7.38	11.88	6	13.25	15.25
1-1/2 - 12	2.50	(4) 3/8-16 Holes on 3.75 B.C. and (8) 1/2-13 Holes on 6.75 B.C., 4.00 Spherical Radius	7.75	-	7.38	11.88	6	13.25	15.25
1-1/2 - 12	2.00	(4) 3/8-16 Holes on 3.75 B.C.	6.50	1.63	8.00	12.88	6	14.25	16.25
1-1/2 - 12	2.00	(4) 3/8-16 Holes on 3.75 B.C. and (8) 1/2-13 Holes on 6.75 B.C., 4.00 Spherical Radius	7.75	-	8.00	12.88	6	14.25	16.25
1-1/2 - 12	2.50	(4) 3/8-16 Holes on 3.75 B.C. and (8) 1/2-13 Holes on 6.75 B.C., 4.00 Spherical Radius	7.75	-	8.00	12.88	6	14.25	16.25

PCORE® OIL-FREE PRC® BUSHING

CSA Standard PRC® Bushings 15kV - 72.5kV

PCORE Canadian Standard PRC® bushings are available in our 85 series and Oil-Free PRC® Series. CSA standard PRC bushings are available from 15kV through 72.5kV. The CSA Standard PRC® bushings are available with minimum oil levels (current transformer pockets) of 10.00", 16.50" and 21.62". PCORE's 85 Series oil-filled PRC bushings can be mounted vertically and tilted up to 70° from vertical. The Oil-Free PRC® bushings can be mounted at any angle. As with all PCORE bushings, the CSA standard designs are interchangeable between transformer and oil circuit breaker applications.

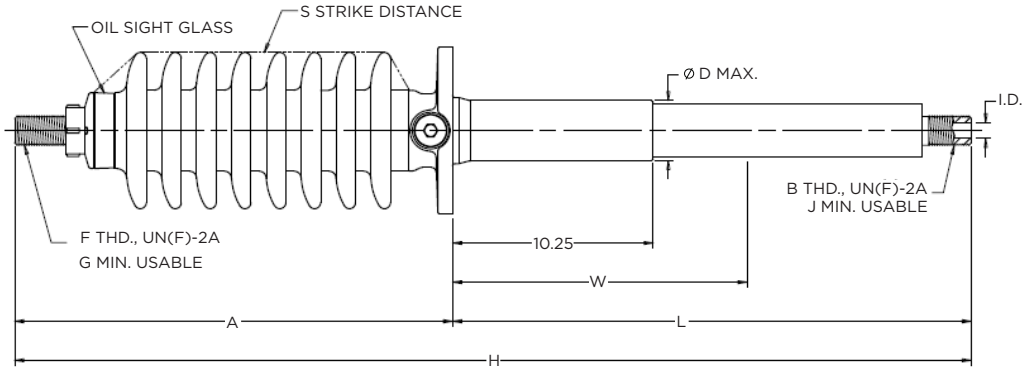
Standard Features:

- Paper-Resin capacitor wound core with external porcelain insulator
- Designed per CAN / CSA-C88.1-2018
- Transformer-Breaker Interchangeable (TBI) bushings
- 0.6% - 0.8% C1 Power Factor (limit per std. 0.85%)
- High-creep upper porcelain

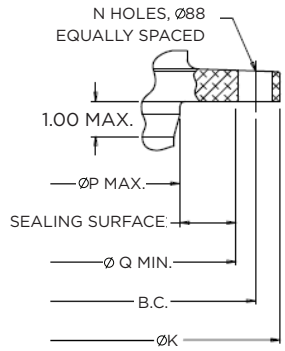
Voltage Class (kV)	Oil-Filled Bushing Catalog Number	Oil-Free Bushing Catalog Number	Current Rating (Amperes)	BIL (kV)	Min. Oil Level (W)	Min. Creep	Min. Strike (S)	Overall Length (H)	Length Above Flange (A)	Length Below Flange (L)	"D" Max	Draw-Lead Above Flange Length
15	**B-85102-70**	**CPRC110F0400C**	400	110	10.00	21.00	10.00	31.81	17.19	14.62	3.12	13.50
	B-85103-70	**CPRC110F0400A**	400	110	21.62	21.00	10.00	43.44	17.19	26.25	3.12	13.50
	B-85112-70	**CPRC110F1200C**	1200	110	10.00	21.00	10.00	32.50	15.62	32.50	3.12	–
	B-85113-70	**CPRC110F1200A**	1200	110	21.62	21.00	21.62	44.12	15.62	28.50	3.38	–
	B-85122-70	**CPRC110F2000C**	2000	110	10.00	18.00	10.00	35.25	16.62	18.62	3.50	–
	B-85123-70	**CPRC110F2000A**	2000	110	21.62	18.00	10.00	46.88	16.62	30.25	4.00	–
	B-85132-70	**CPRC110F3000C**	3000	110	10.00	20.50	10.00	36.75	17.25	19.50	5.00	–
	B-85133-70	**CPRC110F3000A**	3000	110	21.62	20.5	10.00	48.38	17.25	31.12	5.00	–
27.5	**B-85202-70**	**CPRC110F0400C**	400	150	10.00	31.00	14.00	37.06	20.44	16.62	3.12	16.75
	B-85203-70	**CPRC110F0400A**	400	150	21.62	31.00	14.00	48.56	20.44	28.12	3.12	16.75
	B-85212-70	**CPRC110F1200C**	1200	150	10.00	31.00	14.00	37.75	18.88	18.88	3.12	–
	B-85213-70	**CPRC110F1200A**	1200	150	21.62	31.00	14.00	49.38	18.88	30.50	3.12	–
	B-85222-70	**CPRC110F2000C**	2000	150	10.00	26.50	14.00	40.50	19.88	20.62	3.50	–
	B-85223-70	**CPRC110F2000A**	2000	150	21.62	27.50	14.00	52.12	19.88	32.25	4.00	–
35	**B-85302-70**	**CPRC200F0400C**	400	200	10.00	41.00	17.00	42.44	23.94	18.50	3.12	20.25
	B-85303-70	**CPRC250F0400A**	400	200	21.62	41.66	17.00	54.06	23.94	30.12	3.38	20.25
	B-85312-70	**CPRC250F1200C**	1200	200	10.00	41.00	17.00	43.12	22.38	20.75	3.12	–
	B-85313-70	**CPRC250F1200A**	1200	200	21.62	41.00	17.00	54.75	22.38	32.38	3.12	–
50	**B-85402-70**	**CPRC250F0400C**	400	250	10.00	49.00	22.00	48.94	28.44	20.50	4.00	24.75
	B-85403-70	**CPRC250F0400A**	400	250	21.62	49.00	22.00	60.56	28.44	32.12	4.00	24.75
	B-85412-70	**CPRC250F1200C**	1200	250	10.00	49.00	22.00	49.62	26.88	22.75	4.00	–
	B-85413-70	**CPRC250F1200A**	1200	250	21.62	49.00	22.00	61.25	26.88	34.38	4.00	–
72.5	**B-85502-70**	**CPRC350F0400C**	400	350	10.00	69.50	30.00	60.44	36.69	23.75	4.00	33.00
	B-85503-70	**CPRC350F0400A**	400	350	21.62	69.50	30.00	72.06	36.99	35.38	4.00	33.00
	B-85512-70	**CPRC350F1200C**	1200	350	10.00	69.50	30.00	61.12	35.12	26.00	4.00	–
	B-85513-70	**CPRC350F1200A**	1200	350	21.62	69.50	30.00	72.75	35.12	37.62	4.00	–

Notes: 1) All Dimensions on table are in inches. 2) Additional designs are available. Contact PCORE® for details.

CSA Standard PRC® Bushings 15kV - 72.5kV



BUSHING DETAIL



MOUNTING FLANGE DETAIL

Top Terminal		Bottom Terminal		Stud I.D.	Flange Sealing Surface		Flange		
Thd. Size (F)	Min. Thd. (G)	Thd. Size (B)	Min. Thd. (J)		I.D. (P)	O.D. (Q)	No. Holes (N)	B.C.	O.D.
1-1/2 - 12	2.50	–	–	1.00	3.38	6.25	4	7.25	8.50
1-1/2 - 12	2.50	–	–	1.00	3.38	6.25	4	7.25	8.50
1-1/2 - 12	2.50	1-1/2-12	2.12	–	3.38	6.25	4	7.25	8.50
1-1/2 - 12	2.50	1-1/2-12	2.12	–	3.38	6.25	4	7.25	8.50
2 - 12	3.50	2 - 12	4.00	–	4.00	8.62	4	7.25	8.62
2 - 12	3.50	2 - 12	4.00	–	4.00	8.62	4	7.25	8.62
3 - 12	4.00	3 - 12	4.75	–	5.25	8.25	6	9.25	10.62
3 - 12	4.00	3 - 12	4.50	–	5.25	8.25	6	9.25	10.62
1-1/2 - 12	2.50	–	–	1.00	3.38	6.25	4	7.25	8.50
1-1/2 - 12	2.50	–	–	1.00	3.38	6.25	4	7.25	8.50
1-1/2 - 12	2.50	1-1/2-12	2.12	–	3.38	6.25	4	7.25	8.50
1-1/2 - 12	2.50	1-1/2-12	2.38	–	3.38	6.25	4	7.25	8.50
2 - 12	3.50	2 - 12	4.00	–	4.00	6.25	4	7.25	8.62
2 - 12	3.50	2 - 12	4.00	–	4.25	6.25	4	7.25	10.62
1-1/2 - 12	2.50	–	–	1.00	3.38	6.25	4	7.25	8.50
1-1/2 - 12	2.50	–	–	1.00	3.38	6.25	4	7.25	8.50
1-1/2 - 12	2.50	1-1/2-12	2.12	–	3.38	6.25	4	7.25	8.50
1-1/2 - 12	2.50	1-1/2-12	2.12	–	3.38	6.25	4	7.25	8.50
1-1/2 - 12	2.50	–	–	1.00	4.50	7.25	4	8.25	10.62
1-1/2 - 12	2.50	–	–	1.00	4.50	7.25	4	8.25	10.62
1-1/2 - 12	2.50	1-1/2-12	2.12	–	4.50	7.25	4	8.25	10.62
1-1/2 - 12	2.50	1-1/2-12	2.38	–	4.50	7.25	4	8.25	10.62
1-1/2 - 12	2.50	–	–	1.00	4.50	8.25	6	9.25	10.62
1-1/2 - 12	2.50	–	–	1.00	4.50	8.25	6	9.25	10.62
1-1/2 - 12	2.50	1-1/2-12	2.12	–	4.50	8.25	6	9.25	10.62
1-1/2 - 12	2.50	1-1/2-12	2.38	–	4.50	8.25	6	9.25	10.62

Seismically Enhanced Test (Set) Terminals

The PCORE® SET-Terminal is designed for use with field dielectric test equipment for more accurate, faster and safer field power factor measurement of apparatus insulation at a substantial savings.

The PCORE SET-Terminal is manufactured for use with all types of bushings on circuit breakers, transformers and similar equipment through 765kV

Benefits:

- Testing with the SET-Terminal can often be accomplished **without the expense** of a boom, bucket truck or extra personnel
- Regular testing allows you to **extend the service life** of your equipment and lessen the risk of equipment failure, lost revenue and costly repair or replacement
- **Improves worker safety** by reducing boom and bucket truck time by up to 60% for the typical maintenance interval
- **Reduces the risk** of equipment damage associated with not using SET-terminals
- **Reduces equipment down-time** associated with testing

PCORE SET-Terminals (≤3000A)

SET-Terminal Catalog Number	Current Rating (Amperes)	Terminals and Blade Construction	Overall Length	Top Terminal Description	Bottom Terminal Description
B-63033-AF	2000	Aluminum	19.00”	1-1/2” - 12 Male Thread	1-1/2” - 12 Female Thread
B-63034-AF	3000	Aluminum	19.00”	2” - 12 Male Thread	2” - 12 Female Thread
B-63034-61-AF	3000	Aluminum	21.00”	2” - 12 Male Thread, 2.00” Longer Usable Thread	2” - 12 Female Thread
B-63035-AF	3000	Aluminum	19.50”	3” - 12 Male Thread	3” - 12 Female Thread
B-63037-AF	3000	Aluminum	23.38”	4-Hole NEMA Pad @ 1.75” Spacing	4-Hole NEMA Pad @ 1.75” Spacing
B-63037-58-AF	3000	Aluminum	23.38”	4-Hole NEMA Pad (Rotated 90°) @ 1.75” Spacing	4-Hole NEMA Pad (Rotated 90°) @ 1.75” Spacing
B-63055-AF	3000	Aluminum	20.56”	4-Hole NEMA Pad @ 1.75” Spacing	2” - 12 Female Thread
B-63056-AF	2000	Aluminum	20.56”	4-Hole NEMA Pad @ 1.75” Spacing	1 1/2” - 12 Female Thread
B-63056-59-AF	2000	Aluminum	20.56”	4-Hole NEMA Pad @ 1.75” Spacing	M42x3 Female Thread
B-63066-AF	3000	Aluminum	20.56”	4-Hole NEMA Pad @ 1.75” Spacing	2 1/2” - 12 Female Thread
B-63071-AF	3000	Aluminum	21.06”	4-Hole NEMA Pad @ 1.75” Spacing	3” - 12 Female Thread
B-64049-AF	3000	Aluminum	21.00”	2 1/2” - 12 Male Thread	2 1/2” - 12 Female Thread
B-64049-30-AF	3000	Aluminum	21.00”	2” - 12 Male Thread	2 1/2” - 12 Female Thread

For 345kV applications, PCORE recommends the use of (1) corona ring specified by adding the suffix “-E” to the catalog number. (Ex. B-63055-AF-E).
For 500kV applications, PCORE recommends the use of (2) corona ring specified by adding the suffix “-EE” to the catalog number. (Ex. B-63055-AF-EE).

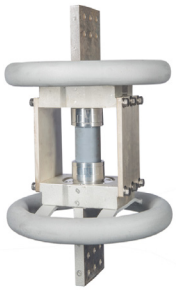
Note: The above designs are standard, offered units by PCORE. Please contact PCORE if a SET-Terminal design is not shown in the above table that is required for a specific application. SET-Terminal drawings are also available and provide more detail than what can be represented above.

Seismically Enhanced Test (Set) Terminals

Features:

- The SET-terminal has a rated static cantilever strength of up to 2,500 ft-lbs, **more than 300% higher** than existing models
- **Can absorb high-shock loading** in excess of 500g with side blades in the open position
- Available in common designs rated up to 3,000A as well **as high-current models** (4,000A and 5,000A)
- For use on power transformers, oil circuit breakers **AND** SF6 breakers
- **No need** to physically remove the power bus during testing
- Available with **guard rings**

PCORE Set-Terminal 3000A B-63055-AF-E



PCORE High Current Set-Terminal 4000A B-63070-22-CF-EE

PCORE High Current SET-Terminals (> 4000A)

SET Terminal Catalog Number	Current Rating (Amperes)	Terminals and Blade Construction	Overall Length	Top Terminal Description	Bottom Terminal Description
B-63070-22-CF	4000	Copper - Silver Plated	28.25"	6-Hole NEMA Pad in Horizontal Position @ 1.75" Spacing	6-Hole NEMA Pad in Horizontal Position @ 1.75" Spacing
B-63070-25-CF	4000	Copper - Silver Plated	28.25"	4-Hole NEMA Pad @ 1.75" Spacing	4-Hole NEMA Pad @ 1.75" Spacing
B-63070-48-CF	5000	Copper - Silver Plated	28.25"	6-Hole NEMA Pad in Horizontal Position @ 1.75" Spacing	6-Hole NEMA Pad in Horizontal Position @ 1.75" Spacing
B-63070-63-CF	5000	Copper - Tin Plated	28.25"	6-Hole NEMA Pad in Horizontal Position @ 1.75" Spacing	6-Hole NEMA Pad in Horizontal Position @ 1.75" Spacing
B-63073-CF	4500	Copper - Silver Plated	22.50"	4"-12 Male Thread	4"-12 Female Thread
B-63080-22-CF	4000	Copper - Silver Plated	25.00"	6-Hole NEMA Pad in Horizontal Position @ 1.75" Spacing	4"-10 Female Thread
B-63080-25-CF	4000	Copper - Silver Plated	25.00"	4-Hole NEMA Pad @ 1.75" Spacing	4"-10 Female Thread
B-64008-22-23-CF	4000	Copper - Silver Plated	25.00"	6-Hole NEMA Pad in Horizontal Position @ 1.75" Spacing	3"-12 Female Thread
B-64008-23-CF	4000	Copper - Silver Plated	25.00"	4-Hole NEMA Pad @ 1.75" Spacing	3"-12 Female Thread
B-64008-41-CF	4000	Copper - Silver Plated	25.00"	4-Hole NEMA Pad @ 1.75" Spacing	4"-12 Female Thread
B-64071-CF	5000	Copper - Silver Plated	23.00"	8-Hole NEMA Pad w/ Special Horizontal Position Spacing	4"-12 Female Thread
B-64071-57-CF	5000	Copper - Silver Plated	23.00"	8-Hole NEMA Pad w/ Special Horizontal Position Spacing	3.75" Smooth Inside Diameter

Bushing Quick Selection Guide

POC® - Paper-Oil-Capacitor

- Oil-impregnated paper wound core with upper/lower porcelain insulators.
- Tried and proven bushing technology with a **60+ year** track record.
- **Transformer-Breaker Interchangeable (TBI)** bushing combined with high performance seismic capabilities.
- Available per IEEE C57.19.00/01 and CSA C88.1 bushing standards.

PRC® - Paper-Resin Capacitor

- Resin-impregnated paper wound core with upper porcelain insulator.
- Available in both oil-filled **AND** oil-free designs.
- **Transformer-Breaker Interchangeable (TBI)** bushing combined with high performance seismic capabilities.
- Available per IEEE C57.19.00/01 and CSA C88.1 bushing standards

SDC® - Solid-Dielectric-Capacitor

- Solid cast epoxy composite bushing technology with integral epoxy sheds and condenser core, providing all of the advantages of oil-free technology
- Modern bushing technology with more than **25 years** of proven field service
- **Transformer-Breaker Interchangeable (TBI)** bushing combined with high performance seismic capabilities
- **Custom designs** to meet difficult dimensional requirements
- Available per IEEE C57.19.00/01, CSA C88.1, IEC 60137 and DIN 48124 bushing standards

Oil-Free High Voltage PRC® Bushings

- Resin-impregnated paper wound core with external porcelain **or** polymer insulator
- High quality insulator with an industry accepted and proven design profile
- **High-strength fiberglass** tube outside of the resin core adds further protection from impact and vandalization
- **Lower operating temperature** designed to run cooler during standard operating conditions

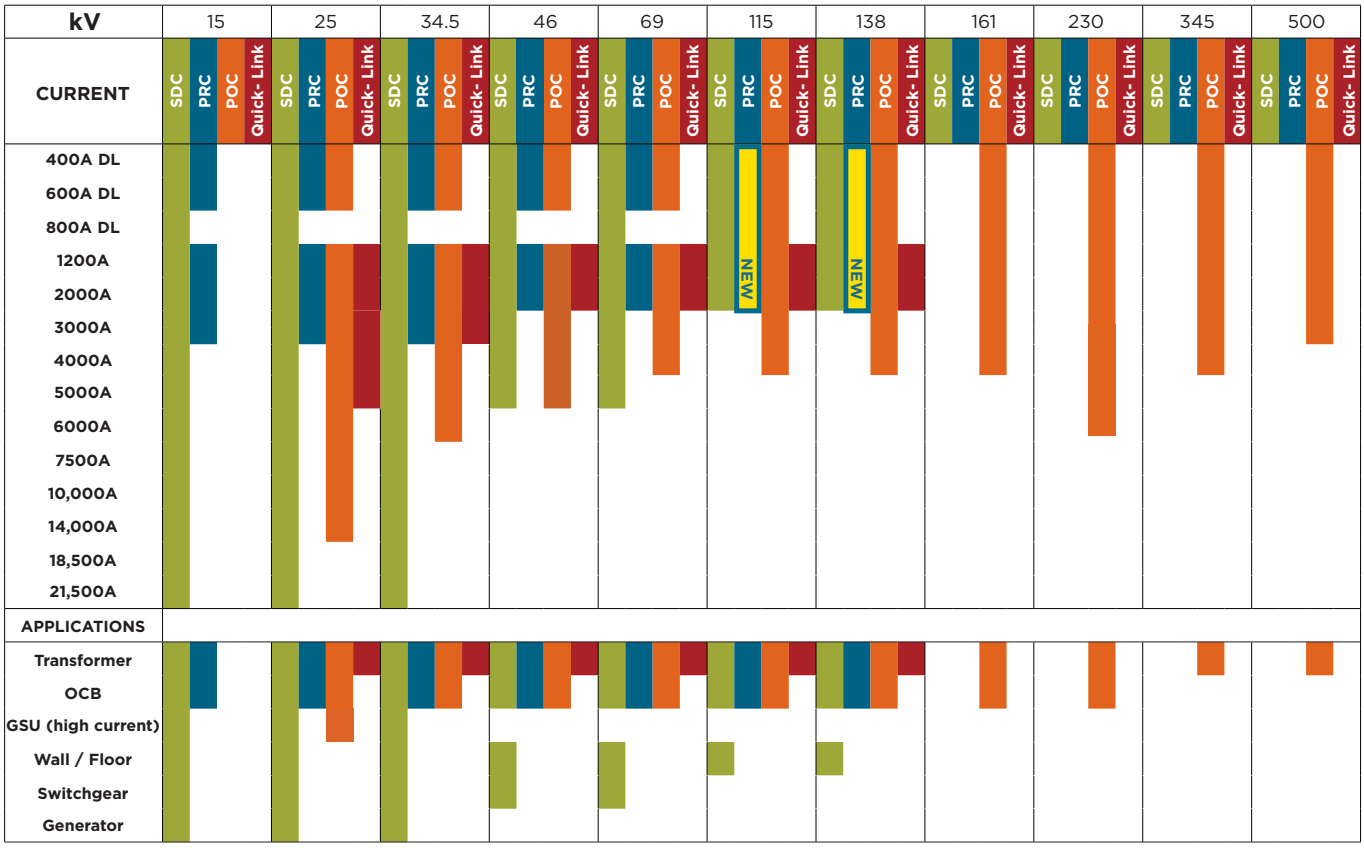
Bushing Application	Medium	POC®	PRC®	SDC™
Power Transformer	Air - Oil	25kV - 500kV	**15kV - 138 kV**	15kV - 145kV
	Oil - Oil	–	–	15kV - 145kV
GSU Transformer	Air - Oil	25kV	–	15kV - 35kV
Oil Circuit Breaker	Air - Oil	25kV - 230kV	**15kV - 138 kV**	15kV - 145kV
Switchgear	Air - Air	–	–	15kV - 69kV
Wall / Floor	Air - Air	–	–	15kV - 145kV
Generator	Air - H2	–	–	15kV - 30kV
DC	Air - Oil / Air - Air	–	–	15kV - 145kV
Special Application	Varies	–	–	Contact Us

Now includes the NEW oil-free high voltage PRC® Bushings

Bushing Quick Selection Guide

Features

- All bushings are IEEE 693 seismically certified
- Most designs are TBI - Transformer-Breaker Interchangeable
- Oil-Filled or Oil-Free bushing types available depending on technology and voltage / current rating
- Porcelain or non-porcelain insulators available depending on technology and voltage/current rating
- All bushings fabricated in ISO-9001 (2015) certified factories
- Bushing designs available for IEEE, CSA or IEC standards
- Standard configurations and customized form-fit-function replacement bushing options available



SDC® - Solid-Dielectric-Capacitor Type, cast epoxy composite bushing, capacitance graded, oil-free.

PRC® - Paper-Resin-Capacitor Type, resin-impregnated paper composite core bushing, capacitance graded, available oil-filled or oil-free. All units available with porcelain insulator, some available with polymer insulator.

POC® - Paper-Oil-Capacitor Type, oil-impregnated paper core bushing, capacitance graded, with upper and lower porcelain insulators.

QUICK-LINK™ - PRC or POC type, with the convenience of a draw-lead bushing and the current capability of a bottom connected bushing.

Now includes the NEW oil-free high voltage PRC® Bushings

Bushing Repair And Diagnostics

A dedicated Bushing Repair Group with its own facilities and years of experience will keep utility turnaround times to a minimum. Returned bushings are repaired and rebuilt to the same high-quality standards that PCORE® has for new bushings, while keeping the original bushing characteristics. With our repair program, savings up to 55% of the cost of a new bushing can be realized.

PCORE Repair Capabilities:

- Bushing Regasket
- Core Replacement
- Minor Porcelain Repair

Procedure:

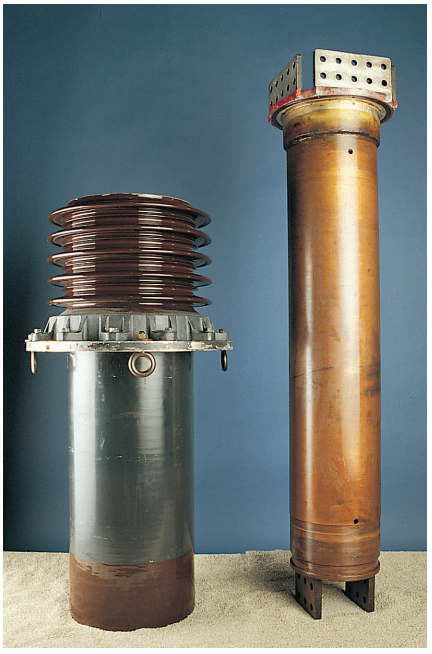
1. A certificate of analysis showing the PCB content of the oil in each bushing by manufacturer, catalog number and serial number sent to PCORE for review.
2. An RMA (Return Material Authorization) number is assigned to the bushings being returned to PCORE for repair. The RMA number needs to be marked on each bushing crate prior to shipping.
3. Purchase order from the customer for one or more bushings with the quoted repair cost provided, based on the apparent problem as shipped to PCORE.
4. Once the returned bushing is at PCORE, we:

- Evaluate to determine extent and feasibility of repair.
- Advise the customer of the evaluation results and actual repair charges.
- Obtain customer approval to proceed with the bushing repair.

If the bushing is determined not to be repairable or customer disapproves of the proposed repair, a charge will be assessed for the initial bushing evaluation.

5. Following the repair of a bushing, ANSI/IEEE standard routine production tests and/or measurements will be made on the bushing as follows:

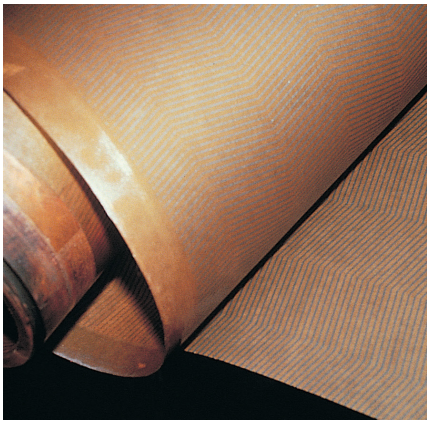
- Leak test by internal pressurization
- One-minute dry-withstand voltage
- Power factor
- Capacitance
- Partial discharge



PCORE Repair Exceptions:

Bushings not considered for repair at PCORE:

- Compound-filled bushings
- Bushings with varnished paper cores (i.e., no lower porcelain housing)
- IEC bushing designs
- Bushings with oil having a PCB content greater than 10 ppm



PCORE replaces conductive ink cores with POC Type core.

Notes

Notes

HUBBELL®
Power Systems

PCORE is a prominent manufacturer of high voltage condenser bushings for power transformers and oil-filled circuit breakers.

GET IN TOUCH:

bushings@hubbell.com

(585) 768-1200

www.hubbell.com/hubbellpowersystems

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