PIEDMONT BUSHINGS & INSULATORS, LLC

Entrance Bushings

Outdoor - to - Indoor Air

15KV-69KV 1200-3000A

Porcelain Bushing

CRC Bushing with Silicone-Rubber Weathersheds

Ratings And Features For Porcelain Bushings

1. Ratings

Piedmont porcelain dry-type bushings are available in ratings from 15 through 38Kv, 110 through 200Kv BIL and through 3000 amperes for outdoor-to-indoor air applications.

2. Electrical Performance

Piedmont porcelain air-to-air bushings achieve the required full and chopped wave impulse withstand voltages with both bushing ends in air, unlike some competitors' bushings that require the bushing's lower end be immersed in a much higher dielectric medium (e.g., transformer oil).

3. Porcelain Bushing Construction

The bushing consists of various functional components. One of these is a high quality, one piece, wet process porcelain. The conductor (C110 copper) can be threaded, swaged or turned, as required, and is available with either silver or tin plating. Both bushing ends are fitted with innovatively designed hardware and gasket assemblies that insure water tightness. This hardware also has an anti-rotation feature that prevents loosening when the bushing is installed in its equipment and connected to its external terminals.

4. Accessories Supplied

Flange clamps and gaskets are supplied as required.

5.Latest Product Line Addition

A 38Kv porcelain bushing is filled with a high dielectric solid, so this bushing can meet the 38Kv dielectric requirements for full wave impulse withstand of 200Kv BIL and for chopped wave of 258Kv with both bushing ends in air.

Optional Bushing: Capacitance-Graded, Oil-Free CRC Bushing With Silicone-Rubber Weather Sheds

This bushing is available in ratings from 15 through 69Kv, 110 through 350Kv BIL and through 3000 amperes for outdoor-to-indoor air applications such as vacuum circuit breakers and swithgear.

This bushing with silicone-rubber weather-sheds is very well suited for service in severely contaminated areas such as: coastal areas with sea fog and sea salt; agricultural areas with fertilizer dust, etc; and other areas with conductive contaminants.

Use of these bushings in coastal areas with extended periods (e.g., up to 7 months) of nearly rain-free conditions has demonstrated very reliable service without the need to power wash bushing insulator surfaces. For more details, contact the factory.

Standards Compliance

1. Vacuum Circuit Breakers and Switchgear

These medium voltage entrance bushings used with vacuum circuit breakers and switchgear must comply with applicable ANSI and IEC Standards including Table 4 of ANSI Standard C37.06-1987, AC High Voltage Circuit Breakers. Chopped wave performance must be met where required.

2. ISO 9001 and Q9001-2000

Now our quality management system is certified to be in compliance with the International Quality System Standard.

Reliability And Experience

When it comes to the entrance bushings for your circuit breaker or switchgear, you can depend on a company whose engineers have spent a lifetime meticulously designing bushings with superior reliability. For over thirty years, high quality dielectric products have been manufactured in the factory located in Woodruff, South Carolina, during which time affiliations were had with ITE and ABB.

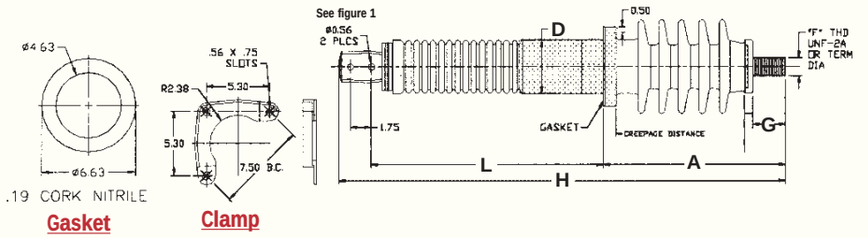
Piedmont Bushings & Insulators, LLC

251 Harris Bridge Road
Post Office Box 849
Woodruff, South Carolina 29388

Phone: 864-476-6360
Fax: 864-476-6376
www.pb-i.com

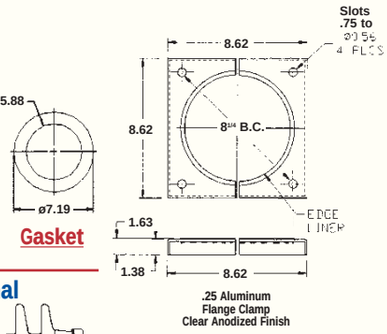
Porcelain Bushing

402466 & 402544 Series



Gasket Clamp

403121 Series



Gasket Clamp

Bottom Terminal

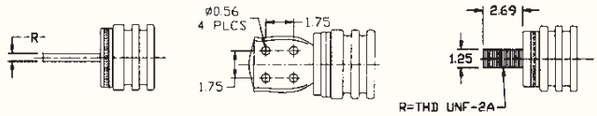


FIG #1 FIG #2 FIG #3

Top Terminal

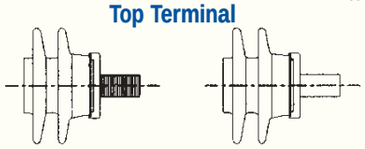


FIG #4 FIG #5

402466 Series: Creepage 24.50; "D" Diameter of 4.38

Volt Class (Kv)	Bushing Series Dash Number	Current Rating (AMPS)	BIL (kV)	Overall Length -H-	Above Flange Length -A-	Flange To First Terminal Hole -L-	Top Terminal			Bottom Terminal		Net Weight (lbs.)
							Thread Size Or Terminal Diameter -F-	Usable Thread Or Terminal Length -G-	Figure #	Thickness R Or Thread Size	Figure #	
15	– K09	1200	110	28.41	15.08	-	1.25-12	2.69	4	1.25-12	3	36
15	– K10	1200	110	29.41	15.08	11.70	1.25-12	2.69	4	.60	1	37
15	– K08	2000	110	28.00	15.01	-	1.75-12	2.62	4	1.75-12	3	36
15	– K03	3000FC	110	33.78	15.02	16.14	2.00-12	2.63	4	.88	1 & 2	63
15	– K07	3000	110	33.91	15.02	16.39	2.25-12	4.00	4	1.10	1 & 2	72
23	– K05	1200	125	35.15	16.39	16.14	1.50-12	4.00	4	.60	1	48
23	– K06	2000	125	35.15	16.39	16.14	1.75-12	4.00	4	.88	1	57
23	– K11	2000	125	33.28	15.02	15.77	1.75-12	2.63	4	.88	1	55

402544 Series: Creepage 27.25; "D" Diameter of 4.38

Volt Class (Kv)	Bushing Series Dash Number	Current Rating (AMPS)	BIL (kV)	Overall Length -H-	Above Flange Length -A-	Flange To First Terminal Hole -L-	Top Terminal			Bottom Terminal		Net Weight (lbs.)
							Thread Size Or Terminal Diameter -F-	Usable Thread Or Terminal Length -G-	Figure #	Thickness R Or Thread Size	Figure #	
25	– K01	1200	150	37.31	15.07	19.61	1.25-12	2.69	4	.60	1	46
25	– K05	1200	150	38.82	16.38	19.82	1.50-12	4.00	4	.60	1	44
25	– K06	1200	125	38.82	16.38	19.82	1.50-12	4.00	4	.60	1	44
25	– K09	1600	125	37.00	15.08	19.43	1.50	2.69	5	.88	1	51
25	– K02	2000	150	37.44	15.02	19.80	1.75-12	2.63	4	.88	1	59
25	– K03	2000	150	38.25	15.95	*	1.75-12	3.57	4	1.75-12	3	59
25	– K04	2000	150	38.82	16.39	19.80	1.75-12	4.00	4	.88	1	59
25	– K08	2000	150	36.94	15.02	19.43	1.75-12	2.63	4	.88	1	59
25	– K10	3000	125	37.57	15.26	19.43	2.25-12	2.63	4	1.10	1 & 2	78

403121 Series: Creepage 30.00; "D" Diameter of 5.75

All dimensions in table are in inches

Volt Class (Kv)	Bushing Series Dash Number	Current Rating (AMPS)	BIL (kV)	Overall Length -H-	Above Flange Length -A-	Flange To First Terminal Hole -L-	Top Terminal			Bottom Terminal		Net Weight (lbs.)
							Thread Size Or Terminal Diameter -F-	Usable Thread Or Terminal Length -G-	Figure #	Thickness R Or Thread Size	Figure #	
38	– K01	1200	200	47.55	19.75	25.28	1.25-12	2.69	4	.61	1	58
38	– K02	2000	200	47.74	19.75	25.36	1.75-12	2.69	4	.88	1	75

Other Products

For more details and technical assistance on these dielectric products, contact the Factory.

Besides entrance bushings, other dielectric products include:

- Apparatus bushings
- Polykeram insulators
- Line sensors
- Instrument transformers