

OPTIONALS

- Current Transformers accommodation extensions
- Arcing horns
- Custom made Porcelain for special or particular applications
- Potential Tapping under different standards
- Air and Corona Shield

DESIGN OF THE BUSHING WITH OIP INSULATION

Terminal plate is intended for connecting high potential and is manufactured from brass.

Housing is intended for placing the following bushing structure elements:

Pressure compensator, compensating temperature changes of oil volume.

Tightening assembly, providing necessary mechanical strength of the bushing.

Oil level indicator glass for control of oil availability in the bushing, represents a disc from a glass stopping UVlight.

Oil is a part of internal bushing insulation equalizing electric field in radial and axial directions.

Insulating body is an internal bushing insulation equalizing electric field in radial and axial directions.

Porcelain housings (top and bottom) are external insulation of the bushing providing the necessary arching distance and outer surface leakage length.

Central tube is intended for winding thereon the internal bushing insulation.

Connecting sleeve is intended for placing thereon the test tap and mounting flange of the bushing.

Mounting flange is intended for fixing the bushing in its place of installation and, in its turn, is secured by screws to the bushing connecting sleeve.

Earthed layer is the last layer of the insulating body being in permanent electric contact with the test tap.

Bottom shield equalizes external electrical field in the bushing bottom part.

COMPANY OVERVIEW

Apfelbaum is specialized on the installation, test and maintenance of custom made OIP Power Transformer bushings. We specialize in exchange bushings without any adapter flanged to make the installation easier and achieve a better performance. We use bushings with the top technology and more than 50 years of expertise.

The (OIP) oil filled and impregnated paper condenser bushing is composed by concentric metallic cylinders which are added inside the insulation to equalize the potential distribution in the bushings. The potential is equally distributed due to the capacitance between the cylinders and is equally distributed. In the construction, metallic foils, placed at calculated distances in radial direction within oil impregnated papers. The outer foil will be connected to a steel tank. The difference in axial length between adjacent metallic cylinders is chosen equal to have equal voltage distribution along the bushing surface. Capacitance graded bushings are made of paper insulation. Paper sheets are wound around the conductor until the aluminum flange. The metallic foils are inserted between paper layers at predetermined positions to form a series of capacitors between conductor tube and metal flange. In this way the grading foil structure is assembled. We can supply bushings from 36 KV. To 1200 KV. Our OIP bushings are designed and manufactured under IEC 60137 and ISO quality standards.

CONTACT US

HEADQUARTERS

6006 N. Mesa Ave. Ste 406
El Paso, TX 79912
915.845.2009
915.845.1276
apfelbaumind.com



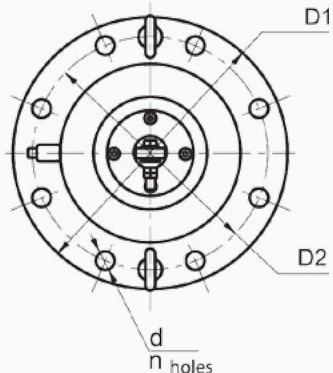
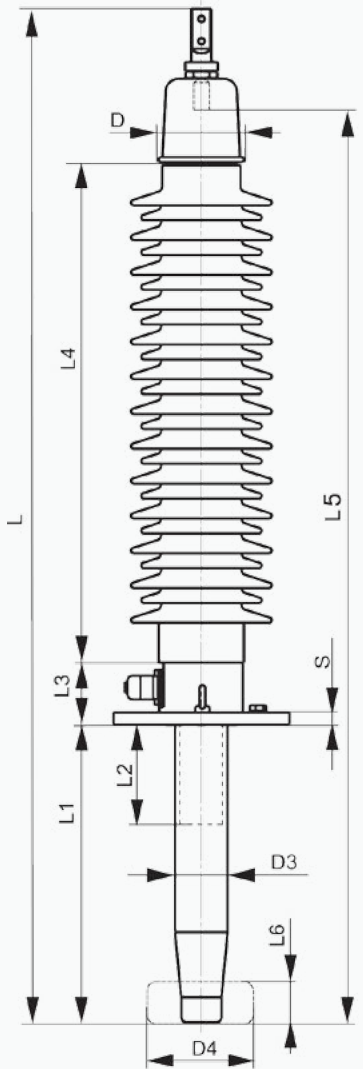
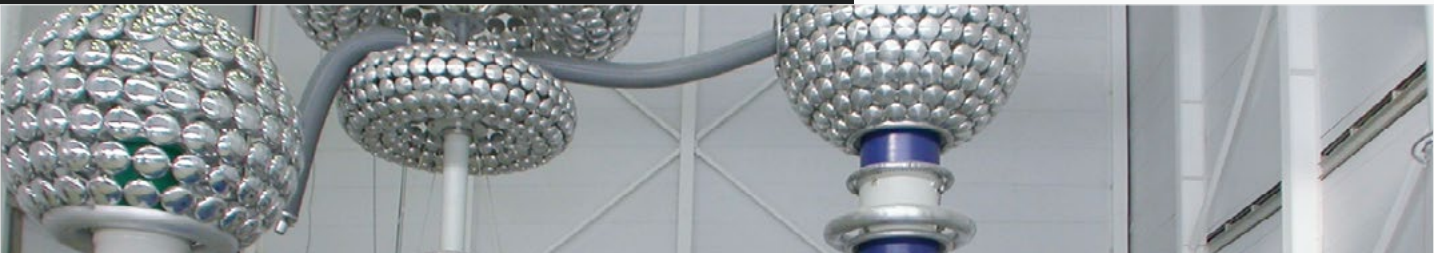
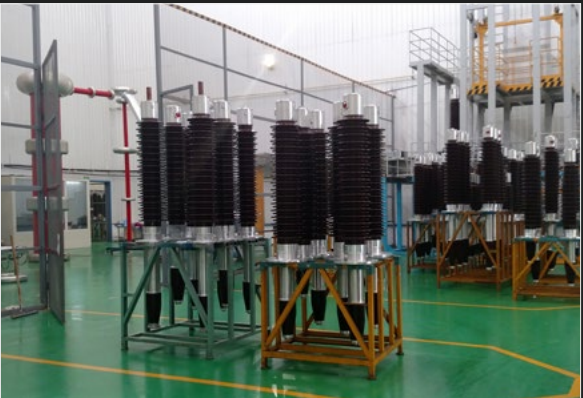
OIL IMPREGNATED PAPER
BUSHINGS



OIL IMPREGNATED PAPER
BUSHINGS

FEATURES

- Products designed and manufactured to customer requirements.
- Full Tested including impulse test as standard and dielectric type test up to 3.2MV impulse, 1.5 MV AC, 1.2 MV DC in wet dry conditions
- Type Oil Impregnated Paper Condenser bushings for high voltage transformers from 69 to 1200 kv rates.
- Optimized construction to meet the latest Group II Classification for cantilever withstand load.
- OIP Bushings may be installed up to 30 (degrees) from vertical.
- Our proven reliability record with OIP condenser bushings guarantees extremely low partial discharge levels during transformer tests and partial discharge-free operation in service.
- Designs are provided to meet the most demanding pollution and most extreme wetting conditions.
- The Test Tapping is incorporated on the flanges for capacitance and tangent delta measurement.
- Feature Porcelain conical housing insulation shell.
- Oil level indicators are provided on all bushings with magnetic indicators on bushings over 245kv.



OIP CONDENSER TRANSFORMER BUSHING DRAW LEAD (VOLTAGE LEVEL ABOVE 252KV)

CODE	TYPE	Rated Voltage	Rated Current	Total Lenght	Cable Lenght	Porcelain Insulation			Flange-Grounding							Dimension in Oil		Grading Ring		Terminal in Air			Lead Connector		Oil Conservator	Pipe	Terminal Rod	
		Um	Ir	L	L1	Nominal Creepage	L2	D4	L4	D	D3	n1	d3	L6	L7	L3	D2	L8	D5	L9	n2	d4	d1	L5	D1	d2	L11	D6
BR6140	BRW-252/630-4	252	630	3990	3700	8600	2330	420	80	550	500	12	24	180	25	840	265	150	260	40	4	14	28	40	350	48	*	*
BR6141A	BRW-252/630-4	252	630	4100	3810	8600	2330	420	110	550	50	12	24	180	25	950	265	150	260	40	4	14	28	40	350	48	*	*
BR6143A	BRLII'-252/630-4	252	630	4340	4050	8600	2330	420	350	550	50	12	24	180	25	1190	265	150	260	40	4	14	28	40	350	48	*	*
BR6143L	BRLII'-252/630-4	252	630	4490	4200	8600	2330	420	300	550	500	12	24	180	25	1340	265	150	260	40	4	14	28	40	350	48	*	*
BR6144L	BRLII'-252/630-4	252	630	4490	4200	8600	2330	420	400	550	50	12	24	180	25	1340	265	150	260	40	4	14	28	40	350	48	*	*
BR6145A	BRLII'-252/630-4	252	630	4490	4200	8600	2330	420	500	550	500	12	24	180	25	1340	265	150	260	40	4	14	28	40	350	48	*	*
BR6147A	BRLII'-252/630-4	252	630	5030	4740	8600	2330	420	750	550	500	12	24	180	25	1880	265	150	260	40	4	14	28	40	350	48	*	*
BR6243A	BRLW-252/1250-4	252	1250	4360	4050	8600	2330	420	350	550	500	12	24	180	25	1190	265	150	260	40	4	14	36	40	350	48	*	*
BR6245A	BRLW-252/1250-4	252	1250	4500	4200	8600	2330	420	500	550	50	12	24	180	25	1340	265	150	260	50	4	18	36	40	350	48	*	*
BR6247A	BRLW-252/1250-4	252	1250	5050	4740	8600	2330	420	750	550	500	12	24	180	25	1880	265	150	260	50	4	18	28	40	350	48	*	*
BR6153A	BRLII'-300/630-4	300	630	4760	4470	10230	2800	420	300	550	50	12	24	180	25	1140	265	150	260	45	4	14	36	40	350	48	*	*
BR6155A	BRLII'-300/630-4	300	630	4960	4670	10230	2800	420	500	550	50	12	24	180	25	1340	265	150	260	45	4	14	36	40	350	48	*	*
BR7136A	BRLII'-363/630-3	363	630	5950	5650	9983	3000	500	600	720	660	12	24	250	30	1640	350	150	260	50	4	18	46	60	500	70	*	*
BR7236A	BRLW-363/1250-3	363	1250	5970	5650	9983	3000	500	600	720	660	12	24	250	30	1640	350	150	260	50	4	18	46	60	500	70	*	*
BR7246E	BRLW-420/1250-3	420	1250	7050	6600	12379	3700	580	600	720	660	12	24	250	30	2115	430	280	350	50	4*2	18	46	60	500	70	*	*
BR8236A	BRDLW-550/1250-3	550	1250	7825	7285	15125	4350	580	600	720	660	12	24	290	30	2120	410	280	350	50	4*2	18	46	60	520	70	*	*
BR8246A	BRDLW-550/1250-4	550	1250	8400	7860	18755	4925	580	600	720	660	12	24	290	30	2120	410	280	350	50	4*2	18	46	60	520	70	*	*
403A	350-72.5-A3	72.5	800	1890	1605	2250	755	250	300	225	185	6	16	115	25	595	115	60	120	*	*	*	28	30	180	35	125	30
405A	325-72.5-A5	72.5	800	1900	1640	2250	680	220	425	225	185	6	16	70	18	770	96	60	86	40	2	14	18	35	136	33	*	*
406A	350-72.5-A6	72.5	800	2190	1905	2250	755	250	600	225	185	6	16	115	25	895	115	60	120	*	*	*	28	30	180	35	125	30
503A	650-145-A3	145	800	2625	2340	3906	1250	320	300	335	290	12	16	145	25	800	165	60	120	*	*	*	28	30	200	35	125	30
506A	650-145-A6	145	800	2925	2640	3906	1250	320	600	335	290	12	16	145	25	1100	165	60	120	*	*	*	28	30	200	35	125	30
5138	650-145-63	145	1250	2625	*	3906	1250	300	300	335	290	12	15	145	25	800	160	60	120	*	*	*	28	30	200	*	125	30
606A	1050-245-A6	245	800	4355	4100	6930	2130	420	600	450	40	12	20	180	25	1440	265	150	260	*	*	*	28	40	350	48	125	30
413AB	380-72.5-A5	72.5	800	1635	1480	2250	680	220	300	225	185	6	16	70	20	585	96	60	86	*	*	*	18	35	136	22	80	30
515AB	650-145-A5	145	800	2605	2420	3980	1250	300	500	335	290	12	16	70	20	940	160	80	140	*	*	*	28	30	250	35	80	30
525AB	650-145-A5	145	1250	2605	2420	3970	1250	300	500	335	290	12	16	70	20	940	160	80	140	*	*	*	28	30	250	35	80	30