

Type ETA Voltage Range 24kV to 420kV

Bushings for transformer to air

Features

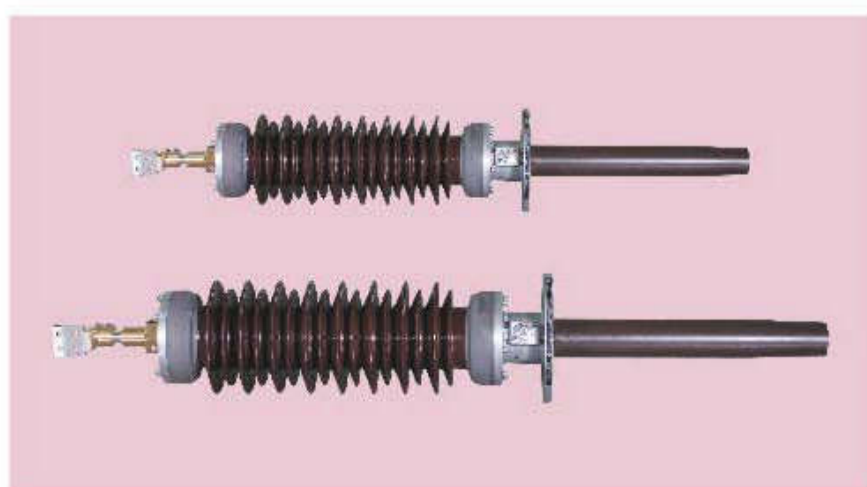
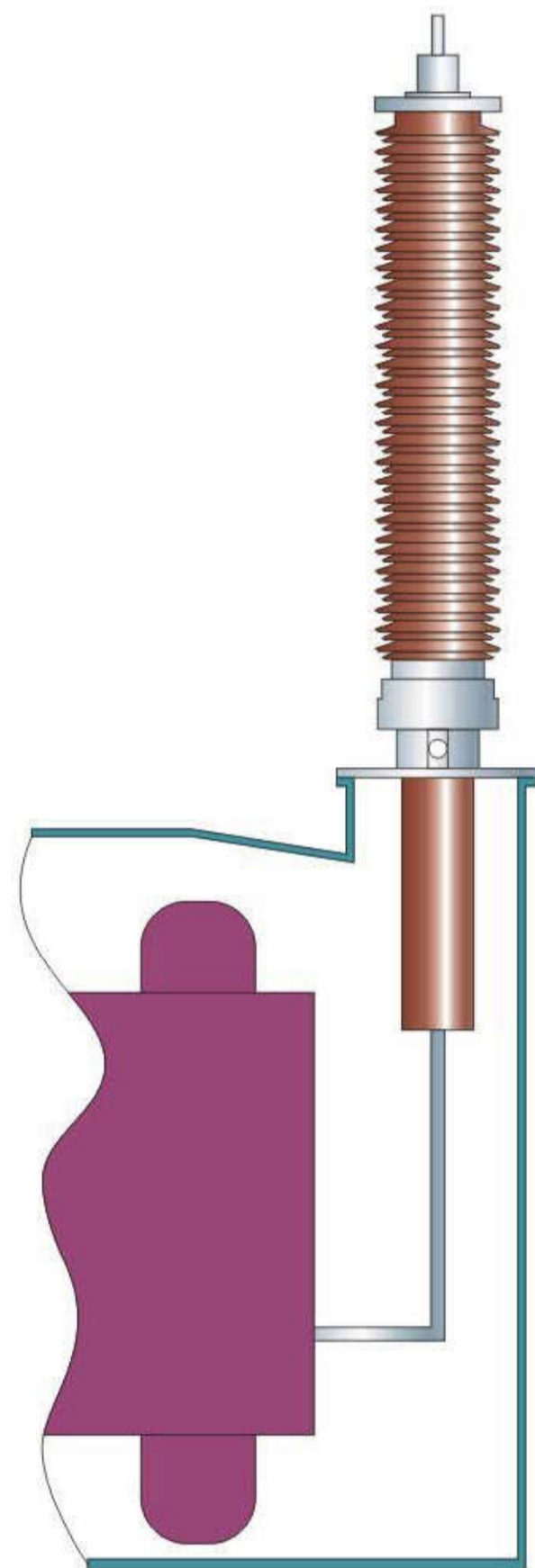
- The ETA bushing can be provided on request
- The ETA bushing range is provided for a full range of operating ratings to IEC and ANSI Standards
- Epoxy resin impregnated paper insulation. Vacuum impregnation of the condenser core gives excellent partial discharge performance
- Oil free solid insulation provides no fire or explosion risk with the bushing
- Design allows for differential expansion across normal operating temperature range
- Connecting flange incorporates a test tapping for capacitance and tan delta measurement during periodical maintenance
- Non-standard CT accommodation and corona shields can be provided on request

Description

Epoxy resin impregnated paper condenser transformer / air (ETA) bushings are used for connecting transformers directly to air. The bushing may be mounted vertically or horizontally or at any service angle.

The primary insulation of ETA bushings is made from superior grade insulating paper and foil, wound onto a mandrel, which forms partial condenser layers to control electrical stress.

The bushing flange dimensions and design of the bushing terminals can be adapted to suit the specific requirements of transformer. Corona shields may be provided if required. Draw lead connection designs can also be provided.



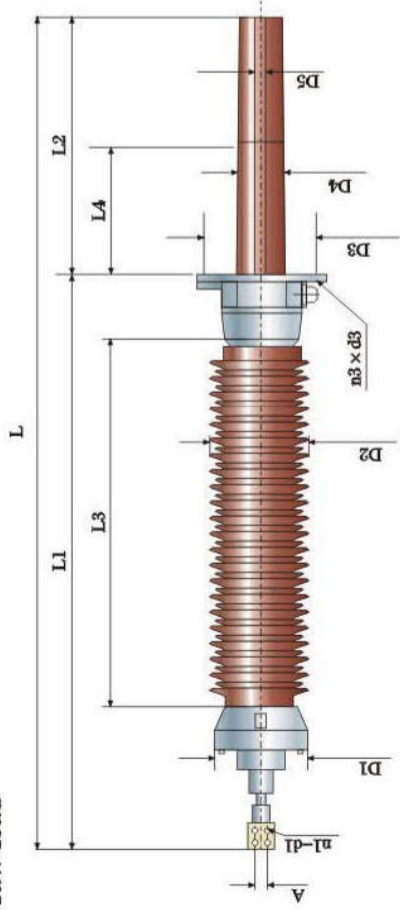


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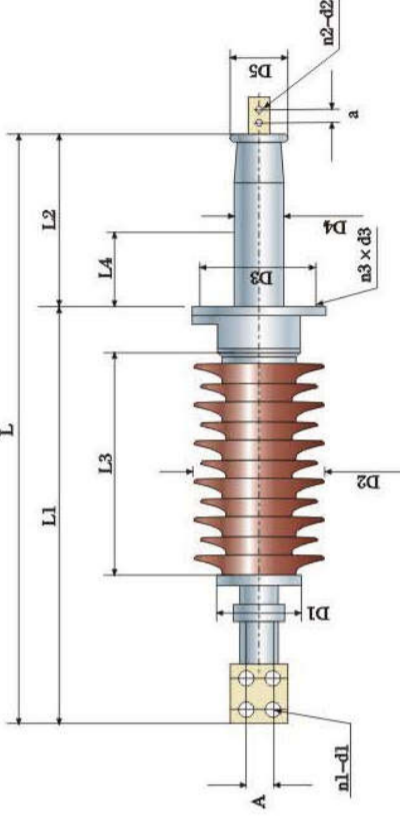
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Bushings for transformer to air

Draw lead



Bottom connected



REFERENCE PERFORMANCE											DIMENSIONS												
Rated Voltage (kV)	Rated Current (A)	Rated Phase to Earth Voltage (kV)	Max Power Frequency Withstand (kV)	Lightning Impulse Withstand (kVp)	Cantileverload (kN)	Total Length	Air-End Length	Oil End Length	String Length	Minimum Earth Band	Cover Board Diameter	Porcelain Diameter	Maximum Diameter of Oil-End	Bore of Tube	Flange Bolt Circle Diameter	Number of Flange Bolt Holes	Flange Bolt Hole Diameter	Number of Terminal Holes	Diameter of Terminal Holes	Width of Terminal Holes	Corona Shield	Creepage Distance	
Ur	Ir	Uy	Up	Ui	F	L	L1	L2	L3	L4	D1	D2	D4	D5	D8	n3	d3	n1	d1	A	H	D	mm
24	630	14	58	125	1	900	640	260	425	100	185	288	92	85	185	6	15	4	14	40	*	*	750
40.5	630	24	95	200	2	1050	800	250	480	50	240	288	100	88	280		18						1020
72.5	630	42	147	325	2	1960	1270	690	700	400	270	314	120	60	350		24	4	18	50			2250
	1250				4																		
123	630	71	230	550		2577	1757	820	1152	410	240	314	110	38	350		24						3390
	1250					2620	1780	840		400	270	340	135	60									3916
145	1250	84	275	650		2763	1863	900	1285	400	300	380	170										4405
170	630	98	325	750		2833	1833	1000	1487	400	300	380	170										5800
	1250					2853	1853			750	380	424	220										6930
245	630	142	510	1050		4825	2945	1880	2142	500	450	500	282										7820
	1250					4830	2865	1240		500	443												8280
362	630	210	625	1175		6330	4530	1800	3720	500	450	500	282										12380
	1250					6350	4550			600	500	470	328										12380
420	630	242	695	1425		6810	4990	1820	4180	600	500	470	328										11550
	1250					6640	1650			430	562												14322

REFERENCE PERFORMANCE											DIMENSIONS												
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Ur	Ir	Uy	Up	Ui	F	L	L1	L2	L3	L4	D1	D2	D4	D5	D8	n3	d3	n1	d1	A	H	D	mm
24	2500	14	58	125	2	1050	770	290	300	50	210	314	132	132	250	4	15	4	14.5	45	*	*	650
	3150				4																		1260
40.5	1250	24	95	200	2	1215	880	335	510		185	288	92	100	185	6	18		18	50			1980
	1600				3																		
	2500				4																		
	3150				4																		
72.5	1250	42	147	325	2	1990	1110	880		400	210	314	132	106	185	8	16	4	14.5	45			2010
	1600				2					150													
	2500				4					200													
	3150				4					200													
123	1600	71	230	550	4	2840	1800	790	1152	300	270	340	150										1980
	2000					2960		1160		500													
145	1250	84	275	650		2953	1853	1100	1235	500	300	350	170										3390
	2000					2978	1878			500													
170	1600	96	325	750		3028	1878	1150	1487	500	330	380	190										5800
	2000									500													
245	1250	142	510	1050		3890	2845	1045	2142	430	380	443	220										6630
	2000					6120	4530	1600	3720	500	420	485	282										13013
362	1600	210	625	1175		6595	4980	1615	4180	562	328												14755
	2000																						
420	1250	242	695	1425																			