

STARIP[®]+ / STARIP[®]-Si+ 24 – 245 kV

RIP Dry-Type Transformer Bushings
with Porcelain or Silicone Insulator
acc. to IEC 60137

Your advantages at a glance

- Free of partial discharges
- Proven design with cast-resin insulation (no oil)
- Porcelain (STARIP[®]+) or composite silicone insulator (STARIP[®]-Si+)
- Extended portfolio
- No maintenance required
- Fast delivery
- Can be operated in ambient temperatures down to -60° C

Product range
extended from
24 kV to 245 kV

Optimal adaptation
to individual operating
conditions



STARIP [®] + / STARIP [®] -Si+		24	36	52	73	123	145	170	245	
Rated highest voltage for equipment U _m , 50/60 Hz	kV	24	36	52	72.5	123	145	170	245	
Partial discharge level at test voltage	pC	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
Power-frequency withstand voltage 50 Hz, 1.2 min, dry	kV	55	77	105	155	255	305	355	505	
Rated lightning impulse withstand voltage (BIL): 1.2/50 μs	kV	125	170	250	325	550	650	750	1050	
Rated switching impulse withstand voltage (SIL): 250/2500 μs	kV	-	-	-	-	-	-	-	850	
Maximum service current draw lead bolt: I _{max} /450 mm ²	A	800	800	800	800	800	800	800	800	
Maximum service current with removable conductor: I _{max}	A	1600	1600	1600	1600	1600	1600	1250	1250	
Maximum service current with solid conductor: I _{max}	A	2500	2500	2500	2500	2000	2000	2000	1600	
Flashover distance	mm	SW	380	380	661	661	1138	1301	1451	2770
Creepage distance: minimum	mm		1120	1120	2250	2250	3900	4500	5270	9300
Creepage distance, referred to U _m	mm/kV		46.7	31.1	43.3	31.0	31.7	31.0	31.0	38.0

Standard: IEC 60137-2017

Dimensions for oil-sided end

Length at CT=0	mm	L1	175	195	230	270	350	400	440	620
Length at CT=300 mm	mm	L1	475	495	530	570	650	700	740	920
Length at CT=500 mm	mm	L1	675	695	730	770	850	900	940	1120

Connecting dimensions for draw lead bolt and removable conductor

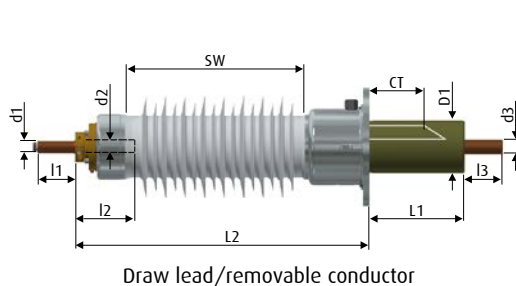
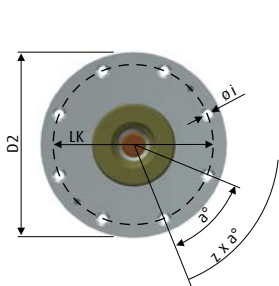
Length of porcelain or composite insulator	mm	L2	667	667	948	948	1425	1588	1738	3117
Top terminal draw lead bolt	mm	d1 x l1	Ø 30 x 90							
Top terminal removable conductor bolt	mm	d1 x l1	Ø 30 x 125							
Bottom terminal draw lead bolt	mm	d2 x l2	Ø 38 x 150							
Bottom terminal removable conductor	mm	d3 x l3	Ø 35 x 90							

Connecting dimensions for solid conductor

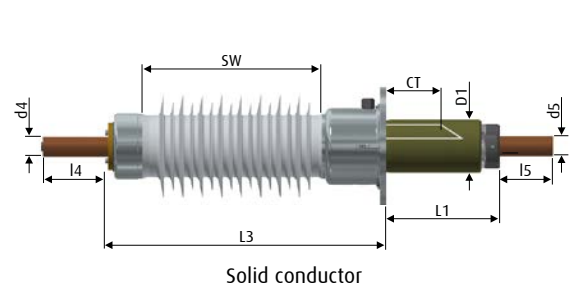
Length of porcelain or composite insulator	mm	L3	640	640	921	921	1398	1561	1711	3085
Top terminal	mm	d4 x l4	Ø 45 x 125							
Bottom terminal	mm	d5 x l5	Ø 45 x 125							

Outside diameter of core	mm	D1	100	100	100	100	130	130	143	182/130
Outside diameter of flange	mm	D2	225	225	225	225	290	290	335	335
Diameter of bolt circle	mm	LK	185	185	185	185	250	250	290	290
Number of holes		z	8	8	8	8	8	8	12	12
Angle	°	a	45	45	45	45	45	45	30	30
Hole diameter	mm	i	15	15	15	15	15	15	16	20

The dimensions are based on the silicone series; the bushing is also available in a porcelain version.



Draw lead/removable conductor



Solid conductor

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HSP Hochspannungsgeräte GmbH
Camp-Spich-Str. 18
53842 Troisdorf-Spich
Germany

Phone: +49 (0) 22 41/25 26-0
Fax: +49 (0) 22 41/25 26-116

E-mail: contact@hspkoeln.de

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