

# **WALL BUSHING**

## **Type CPW 24 to 123kV**

### **Indoor/Outdoor service**

**up to 2500A**

**IEC 60137**



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**40500001-GB**

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# Technical Data

## Wall bushings Type CPW 24 to 123kV Indoor/Outdoor

N°.	Rated Voltage kV	Rated phase to earth voltage kV	Test Voltage 60 sec. kV	Impulse Voltage 1,2/50 µs kV	Rated Current A	Material of connection	Wall (L4) mm	AD Arcing distance (min.) mm	Standard creepage distance (min.) mm	Mass Approx. kg	Cantilever test load (min.) N	L mm	L1 mm	L2 mm	D6 x L6 mm	D1 mm	D2 mm	D3 mm	D4 mm	D5 mm	t mm	e mm
1	24	14	50	125	800	Aluminium	Standard: 300, 500	235	600	22	1000	1015	580	435	30 x 80	68	220	260	210	130	18	15
2					1250	Aluminium		235	600	25	1250	1015	580	435	40 x 80	68	220	260	210	130	18	15
3					1600	Copper		235	600	35	1250	1105	625	480	40 x 125	68	220	260	210	130	18	15
4					2500	Copper		235	600	42	2000	1115	625	490	50 x 125	90	220	260	230	160	18	18
5	36	21	70	170	800	Aluminium		340	900	27	1000	1200	660	540	30 x 80	68	220	260	210	130	18	15
6					1250	Aluminium		340	900	30	1250	1200	660	540	40 x 80	68	220	260	210	130	18	15
7					1600	Copper		340	900	41	1250	1290	705	585	40 x 125	68	220	260	210	130	18	15
8					2500	Copper		340	900	48	2000	1300	715	585	50 x 125	90	220	260	230	160	18	18
9	52	30	95	250	800	Aluminium		465	1300	72	1000	1530	800	730	30 x 80	102	280	320	231	155	20	18
10					1250	Aluminium		465	1300	75	1250	1530	800	730	40 x 80	102	280	320	231	155	20	18
11					1600	Copper		465	1300	88	1250	1620	845	775	40 x 125	102	280	320	231	155	20	18
12					800	Aluminium		610	1820	80	1000	1845	970	875	30 x 80	102	280	320	231	155	20	18
13	72,5	42	140	325	1250	Aluminium		610	1820	84	1250	1845	970	875	40 x 80	102	280	320	231	155	20	18
14					1600	Copper		610	1820	95	1250	1935	1015	920	40 x 125	102	280	320	231	155	20	18
15					800	Aluminium		833	2500	80	1000	2301	1160	1141	30 x 80	135	320	370	299	220	20	18
16					1250	Aluminium		833	2500	83	1250	2301	1160	1141	40 x 80	135	320	370	299	220	20	18
17	100	58	185	450	1600	Copper		833	2500	92	1250	2391	1205	1186	40 x 125	135	320	370	299	220	20	18
18					800	Aluminium		1050	3100	88	1250	2708	1350	1358	30 x 80	142	320	370	299	220	20	18
19					1250	Aluminium		1050	3100	93	1600	2708	1350	1358	40 x 80	142	320	370	299	220	20	18
20					1600	Copper		1050	3100	98	1600	2798	1395	1403	40 x 125	142	320	370	299	220	20	18

### Application

Wall bushings of the type CPW are used to transfer the electrical voltage through a wall or a room closing with moderate humidity indoor side

- **standard** maximum annual average of 65% humidity (without water condensation) indoor side.
- **on request** maximum annual average of 80% humidity with a special painting (without water condensation) indoor side.

### Description

The insulating body of bakelised paper is wound on a solid conductor. To achieve uniform voltage distribution in radial and axial direction, a number of conducting layers are wound into this body in such a manner that a series of coaxial capacitors is obtained between conductor and mounting flange.

The flange, made of aluminium is glued on the insulating body. The inner capacitor layer is connected to the conductor and the exterior one to the flange by a contact screw.

The service position of this type of wall bushing can be vertical or horizontal.

### Comments related to columns L2, L3 and Mass

The values and mass are valid for a wall (L4) of 300mm

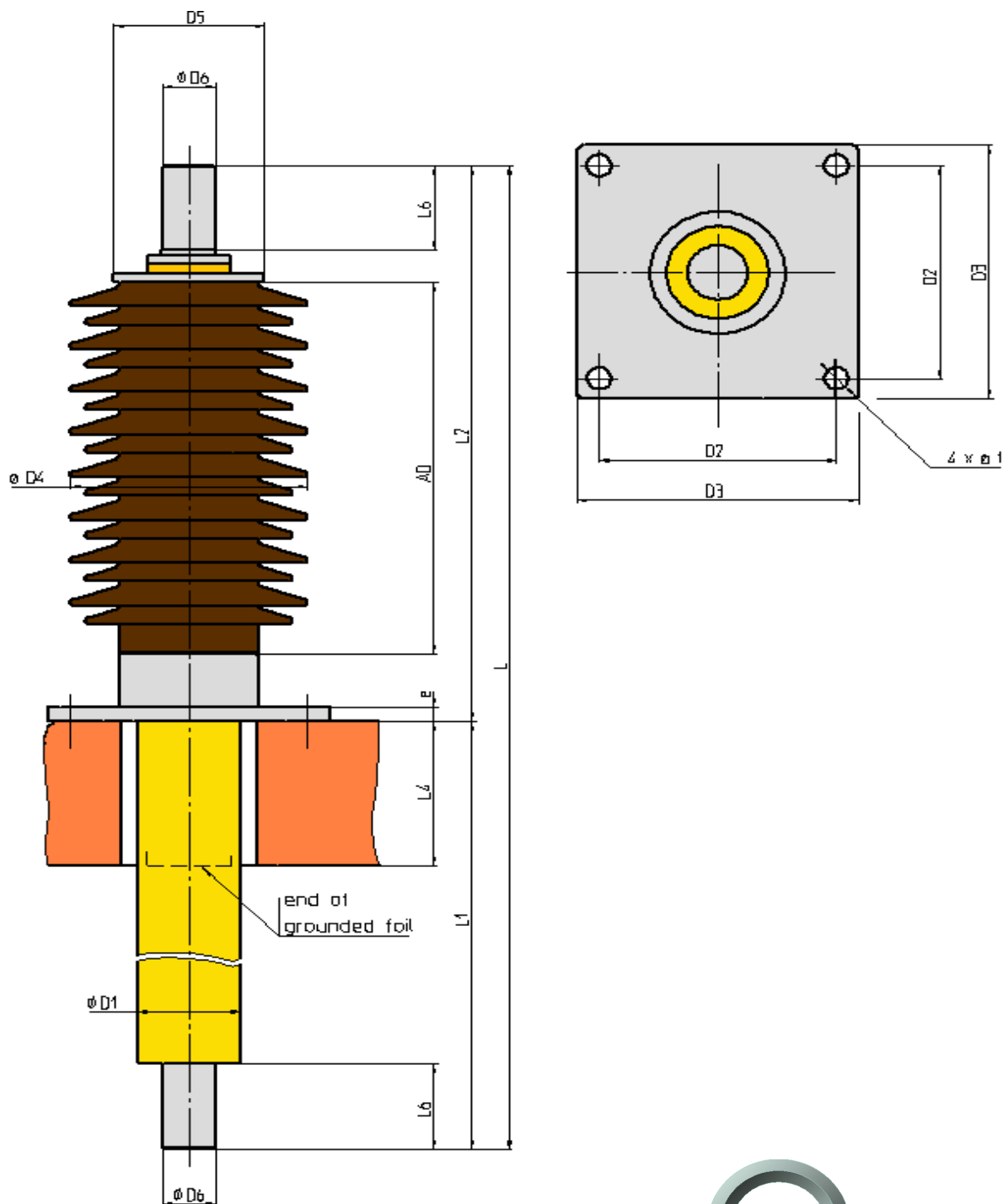


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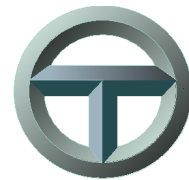
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Wall bushings  
Type CPW 24 to 123kV  
Indoor/Outdoor



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## Product Range

Bushings for

- Power Transformers up to 765 kV, 3150A (>245 kV see separate brochure)

High Current Application up to 36 kV, 25000 A

Transformer to SF6 connection up to 550kV

- Gas-insulated Switchgear (GIS) up to 800 kV, 6000A

- Generators up to 36 kV, 45000 A

- Railways

- Buildings up to 245 kV, 3000 A

Bushings according standards as:

IEC

Bushings according to customer's special specification

## Quality

At Trench quality is a way of life. Trench quality assurance complies with the most stringent standard of ISO 9001.

Certified by AFAQ since 1994

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## GUIDE LINE FOR WALL BUSHINGS

Requested Information		Trench choice if not specified:	Customer Request
<b>Application:</b>	indoor - indoor outdoor - indoor outdoor - outdoor		
<b>Standard:</b>	IEC 60137	IEC 60137	
<b>Rated Voltage:</b>			
50 Hz 1 min test voltage	kV	--	
1,2/50 $\mu$ s BIL	kV	--	
<b>Rated Current:</b>	A	--	
Thermal Short-Circuit current	kA . s	25 x I <sub>r</sub> during 3 sec	
Dynamical Short Circuit current peak	kA	2,55 x I <sub>th</sub>	
Conductor/connection: connection dimension (D6 x L6) Wall thickness (L4)	Copper or Aluminium		
Elevation above sea level:	M	1000 m	
Outdoor Pollution Class (25mm/kV, 31mm/kV or special)	mm/kV	25 mm/kV	
Indoor conditions:			
Standard maximum annual average humidity	65%	65%	
On request maximum annual average humidity	80%		
Clean room		Clean room	