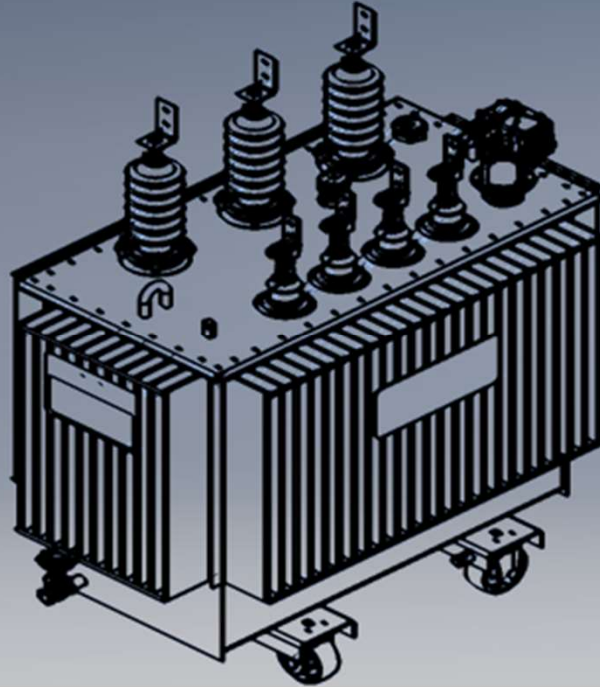




COMPLETE BUSHING FOR DISTRIBUTION AND POWER TRANSFORMER

1

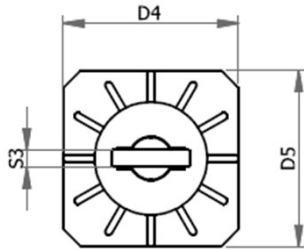
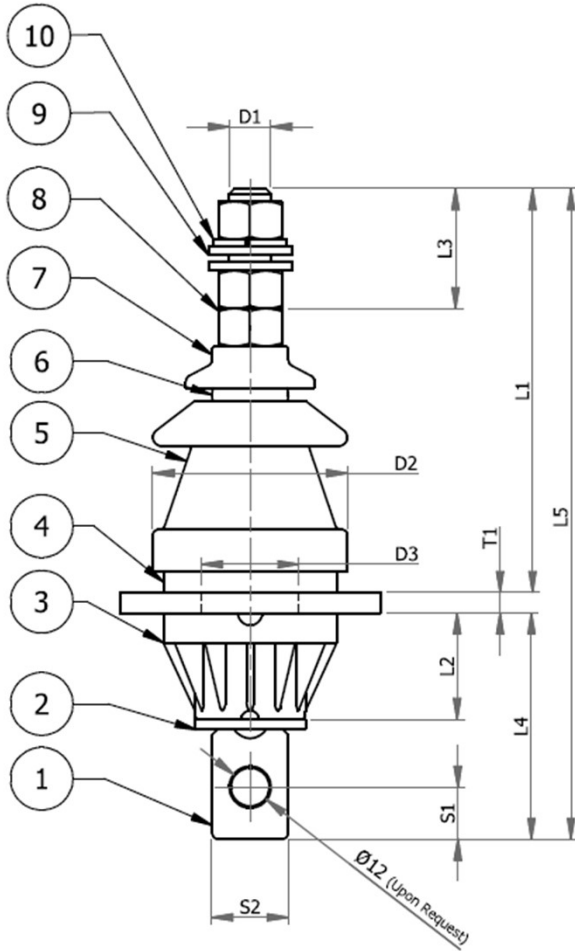
LV BUSHING

EN STANDARD

- ❖ 1KV/ 250A ÷ 630A EN – AP TYPE
- ❖ 1KV/ 1000A ÷ 1250A EN – AP TYPE
- ❖ 1KV/ 2000A ÷ 3150A EN TYPE

LV BUSHINGS EN 50386

1kV/250A ÷ 630A EN-AP TYPE

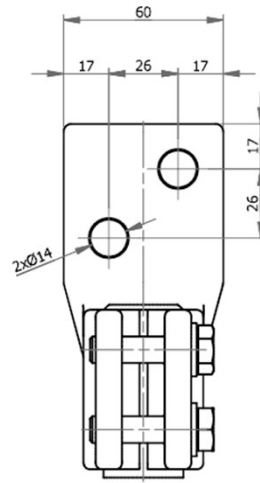
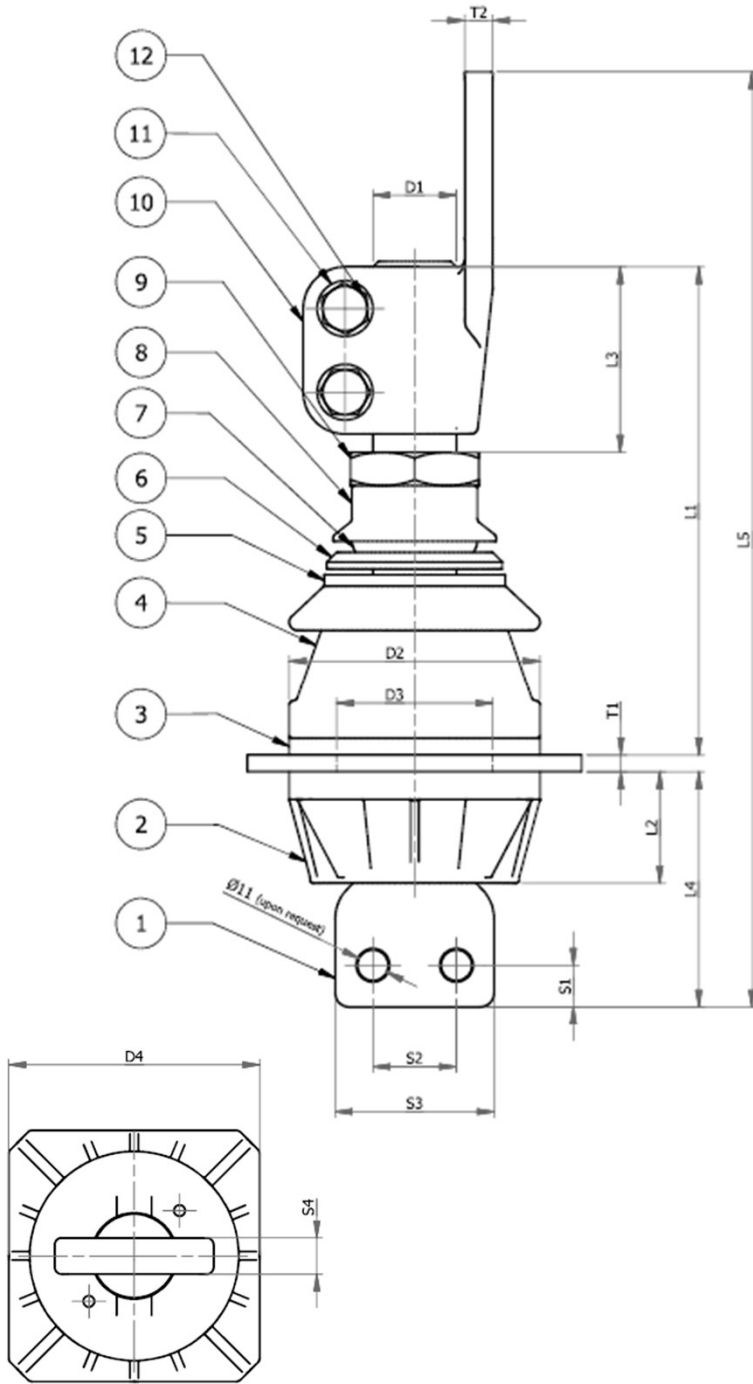


Pos.	Description	Material	250A	630A
1	Stem "AP"	Brass	1	1
2	Ring Stopper	Brass	1	1
3	Bottom Insulator	Nylon PA66	1	1
4	Flat Gasket 'N'	Cork TD1049	1	1
5	Top Insulator	Porcelain C110	1	1
6	Gasket 'J' Donut	NBR	1	1
7	"E" Cap	Brass	1	1
8	Full Nut	Brass	3 (M12)	3 (M20)
9	Plain Washer	Brass	-	2 (M20)
10	Spring Washer	Stainless Steel	-	1 (M20)

Type AP	Ampere	L1	L2	L3 (max)	L4	L5	D1	D2 (max)	D3	D4	D5	S1	S2	S3	T1 (max)	Creepage Distance
1/250A	250	115	30	40	65	192	M12	56	28	50	50	15	22	5	6	55
1/630A	630	163	30	65	67	235	M20	70	45	70	70	14	32	9	6	70

LV BUSHINGS EN 50386

1kV/1000A ÷ 1250A EN-AP TYPE

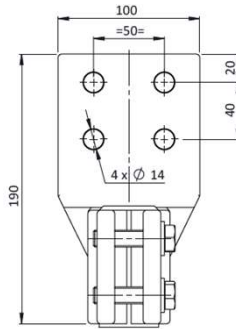
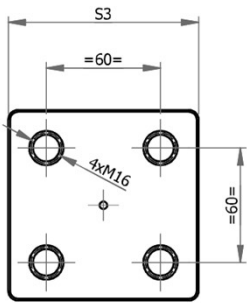
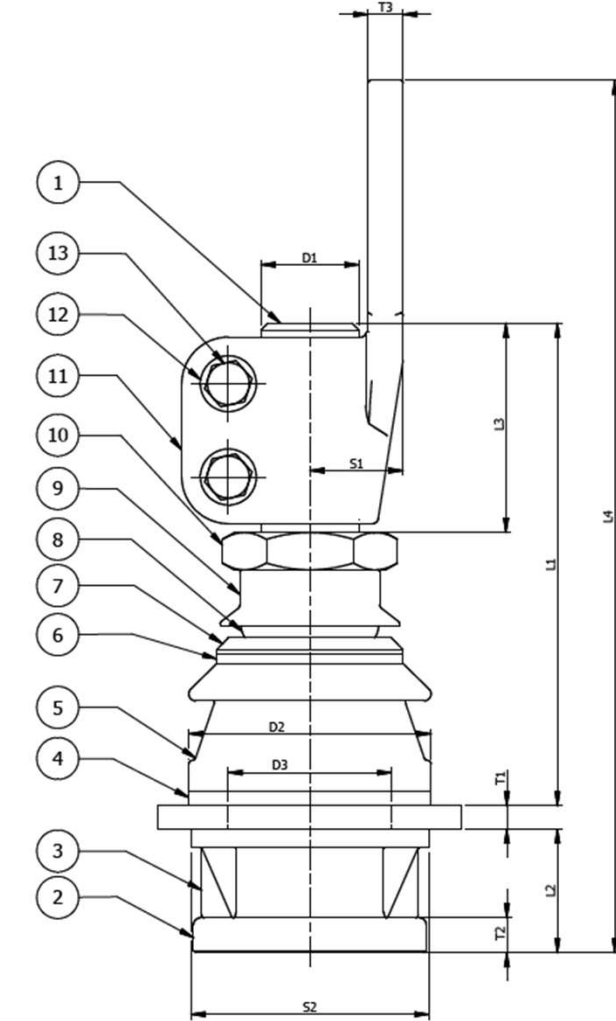


Pos.	Description	Material	1000A	1250A
1	Stem "AP"	Brass/ Copper	1 (Brass)	1 (Cooper)
2	Bottom Insulator	Nylon PA66	1	1
3	Flat Gasket "N"	Cork TD1049	1	1
4	Top Insulator	Porcelain C110	1	1
5	Flat Gasket "M"	Cork TD1049	1	1
6	"G" Washer	Brass	1	1
7	Gasket "J" Donut	NBR	1	1
8	"E" Cap	Brass	1	1
9	Half Nut M30	Brass	1	1
10	Connection Flag	Brass	1	1
11	Bolt M10x40	Stainless Steel	2	2
12	Plain Washer M10	Stainless Steel	2	2

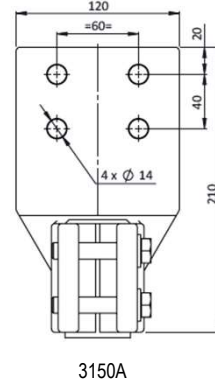
Type AP	Ampere	L1	L2	L3 (min)	L4	L5	D1	D2 (max)	D3	D4	S1	S2	S3	S4	T1 (max)	T2	Creepage Distance
1/1000A	1000	175.5	40	70	84.5	366	M30	ø90	ø56	90	15	30	57	13	6	10	75
1/1250A	1250	175.5	40	70	84.5	366	M30	ø90	ø56	90	15	30	57	13	6	10	75

LV BUSHINGS EN 50386

1kV/2000A ÷ 3150A EN TYPE



2000A



Pos.	Description	Material	2000A	3150A
1	Stem "EN"	Copper	1	1
2	Bottom Part	Brass	1	1
3	Bottom Insulator	Nylon PA66	1	1
4	Flat Gasket "N"	Cork TD1049	1	1
5	Top Insulator	Porcelain C110	1	1
6	Flat Gasket "M"	Cork TD1049	1	1
7	"G" Washer	Brass	1	1
8	Gasket "J" Donut	NBR	1	1
9	"E" Cap	Brass	1	1
10	Half Nut	Brass	1 (M24)	1 (M48)
11	Connection Flag	Brass	1	1
12	Plain Washer M12	Stainless Steel	2	2
13	Bolt M12	Stainless Steel	2 (12x50)	2 (12x65)

Type	Ampere	L1	L2	L3 (min)	L4	D1	D2 (max)	D3	S1	S2	S3	T1 (max)	T2	Creepage Distance
1/2000A	2000	204	56	87	377	M42	ø104	ø70	40	102	100	10	15	75
1/3150A	3150	212	59	91	408	M48	ø125	ø90	45	123	110	10	18	75

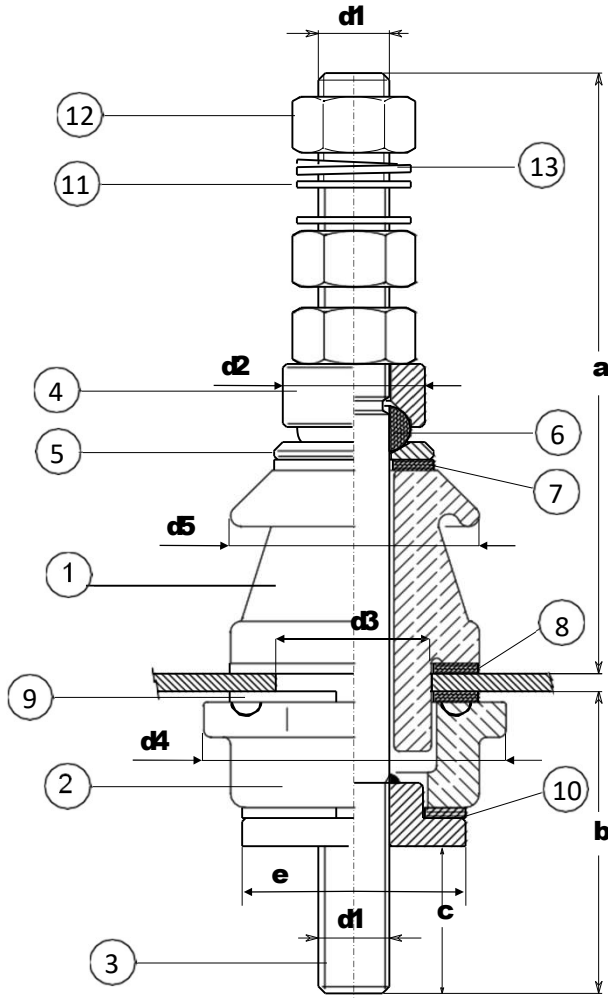
LV BUSHING

DIN STANDARD

- ❖ 1KV/ 250A ÷ 630A
- ❖ 1KV/ 1000A ÷ 3150A
- ❖ 3KV/ 250A ÷ 630A
- ❖ 3KV/ 1000A ÷ 3150A
- ❖ 3KV/ 4500A
- ❖ 3KV/ 6500A

LV BUSHINGS DIN 42530

1kV/250A ÷ 630A DIN TYPE

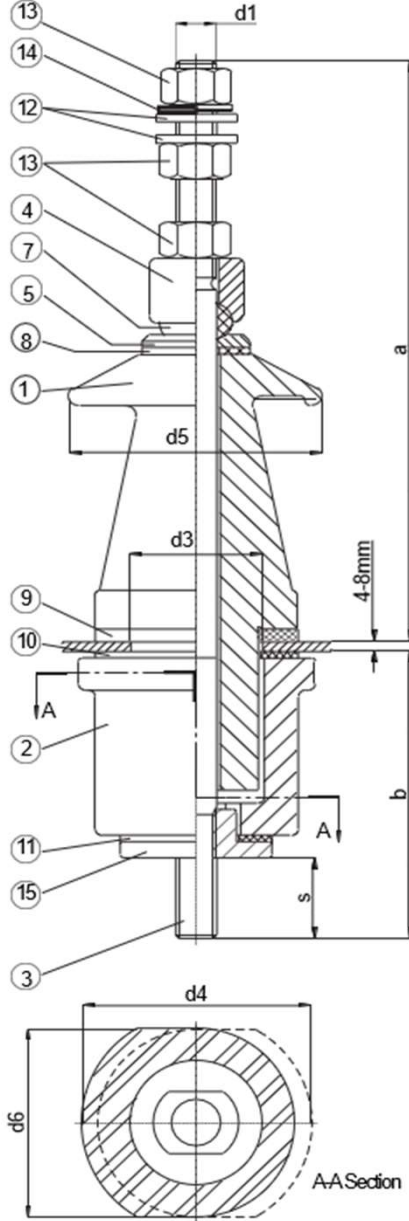


Pos.	Description	Material	250A	630A
1	Top Insulator	Porcelain C110	1	1
2	Bottom Insulator	Porcelain C110	1	1
3	Stem "DIN"	Brass	1	1
4	"E" Cap	Brass	1	1
5	"G" Washer	Brass	1	1
6	Gasket "J" Donut	NBR	1	1
7	Flat Gasket "M"	Cork TD1049	1	1
8	Flat Gasket "N"	Cork TD1049	1	1
9	Internal Gasket "O"	Klingerit	1	1
10	Internal Gasket "P"	Klingerit	1	1
11	Plain Washer	Brass	2 (M12)	2 (M20)
12	Full Nut	Brass	3 (M12)	3 (M20)
13	Spring Washer	Stainless Steel	1 (M12)	1 (M20)

Type	a	b	c	e	d1	d2	d3	d4	d5	Creepage Distance
DT 1-250	138	68	25	ø45	M12	28	28	60	50	55
DT 1-630	178	82	37	ø70	M20	40	45	85	70	70

LV BUSHINGS DIN 42539

3kV/250A ÷ 630A DIN TYPE



*Note: Detail 1 and 2 are for special requests out of DIN Norm



Pos.	Description	Material	Qty.
1	Top Insulator	Porcelain C110	1
2	Bottom Insulator	Porcelain C110	1
3	Stem "DIN"	Brass	1
4	"E" Cap	Brass	1
5	"G" Washer	Brass	1
7	Ring Gasket "J"	NBR	1
8	Flat Gasket "M"	Cork TD1049	1
9	Flat Gasket "N"	Cork TD1049	1
10	Internal Gasket "O"	Klingerit	1
11	Internal Gasket "P"	Klingerit	1
12	Plain Washer DIN 125	Brass	2
13	Full Nut ISO 4032	Brass	3
14	Spring Washer DIN 127	Stainless Steel	1
15	Ring Stopper	Brass	1

⊕ Rated current (A)

⊘ Weight (kg)

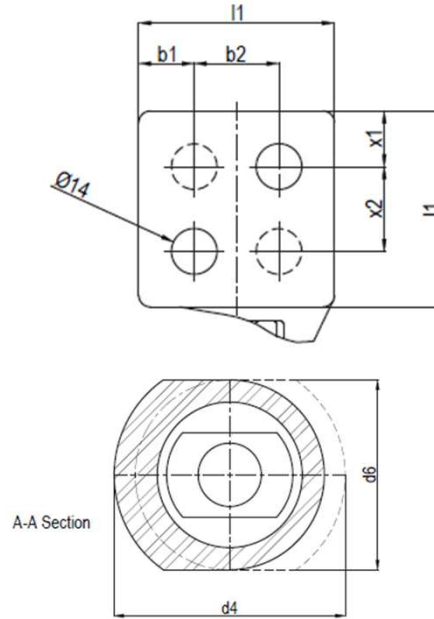
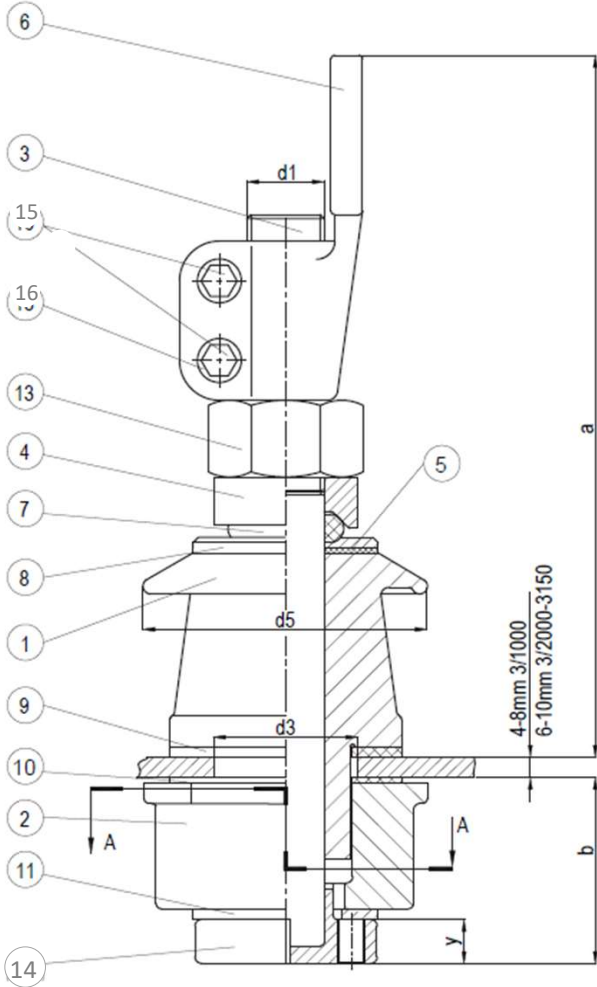
⊗ Creepage distance (mm)

● Volume (dm³)

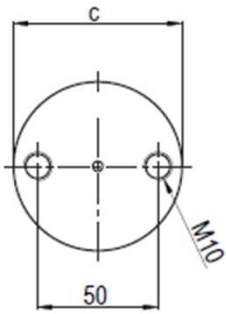
Type	⊕	a max	b max	s	d1	d3	d4	d5	⊗	⊘	●
3/250	250	180	94	25	M12	39	70	75	120	1,0	2,7
3/630	630	210	110	37	M20	45	85	90	120	2,5	4,8

LV BUSHINGS DIN 42539

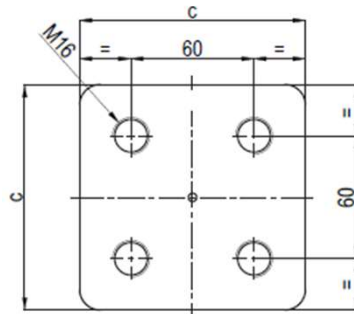
3kV/1000A-2000A-3150A DIN TYPE



Pos.	Description	Material	Qty.
1	Top Insulator	Porcelain C110	1
2	Bottom Insulator	Porcelain C110	1
3	Stem "DIN"	Cooper	1
4	"E" Cap	Brass	1
5	"G" Washer	Brass	1
6	Connecting Flag DIN43675	Brass	1
7	Gasket "J" Donut	NBR	1
8	Flat Gasket "M"	Cork TD1049	1
9	Flat Gasket "N"	Cork TD1049	1
10	Internal Gasket "X"	Klingerit	1
11	Internal Gasket "R"	Klingerit	1
13	Full Nut ISO 4032	Brass	1
14	Stem - Bottom Part	Brass	1
15	Bolt	Stainless Steel	2
16	Plain Washer	Stainless Steel	2



3/1000



3/2000-3150

⊕ Rated current (A)

⊙ Weight (kg)

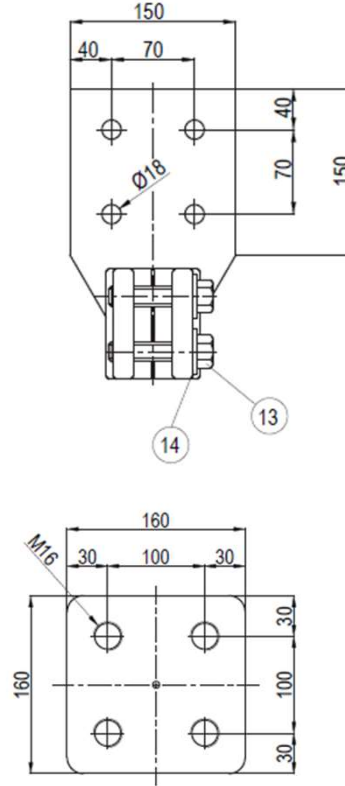
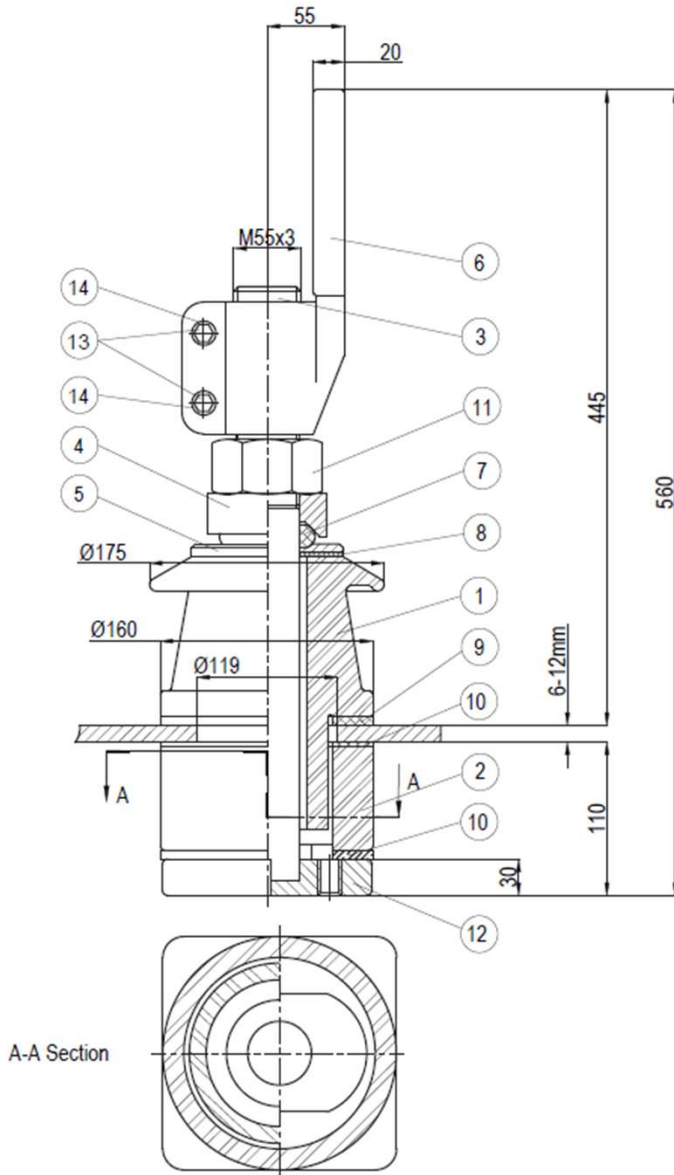
⊗ Creepage distance (mm)

● Volume (dm³)

Type	⊕	a max	b max	c	y	d1	d3	d4	d5	x1	x2	b1	b2	l1	⊗	⊙	●
3/1000	1250	294	80	70	17	M30x2	56	110	110	17	26	17	26	60	125	6	8
3/2000	2000	372	86	100	22	M42x3	70	125	125	20	40	25	50	100	125	13	15
3/3150	3150	404	92	110	27	M48x3	90	150	145	20	40	30	60	120	125	18	20

LV BUSHINGS DIN 42539

3kV/4500A DIN TYPE



Pos.	Description	Material	Qty.
1	Top Insulator	Porcelain C110	1
2	Bottom Insulator	Porcelain C110	1
3	Stem "DIN"	Cooper	1
4	"E" Cap	Brass	1
5	"G" Washer	Brass	1
6	Connecting Flag	Brass	1
7	Gasket "J" Donut	NBR	1
8	Flat Gasket "M"	Cork TD1049	1
9	Flat Gasket "N"	Cork TD1049	1
10	Internal Gasket "X"	Klingerit	2
11	Full Nut M55	Brass	1
12	Stem - Bottom Part	Brass	1
13	Bolt M12	Stainless Steel	2
14	Plain Washer M12	Stainless Steel	2

⊕ Rated current (A) ● Weight (kg)
⊗ Creepage distance (mm.) ● Volume (dm³)

Type	⊕	⊗	●	●
3/4500	4500	130	32	30

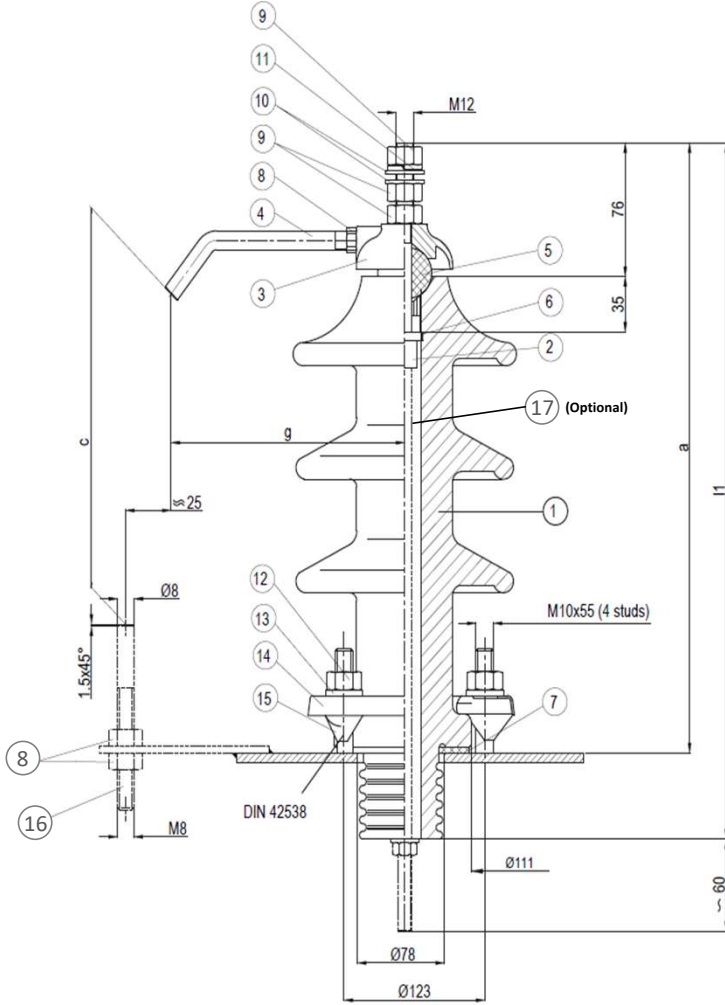
HV BUSHING

DIN STANDARD

- ❖ 10NF ÷ 30NF/ 250A
- ❖ 20NF/ 250A PLN
- ❖ 10NF ÷ 30NF/ 630A
- ❖ 10NF ÷ 30NF/ 1000-3150A
- ❖ 40NF/ 250A
- ❖ 40NF/ 630A
- ❖ 52NF/ 250A
- ❖ 52NF/ 630A
- ❖ 52NF/ 1000A

HV BUSHINGS DIN 42531

10NF-20NF-30NF/250A DIN TYPE

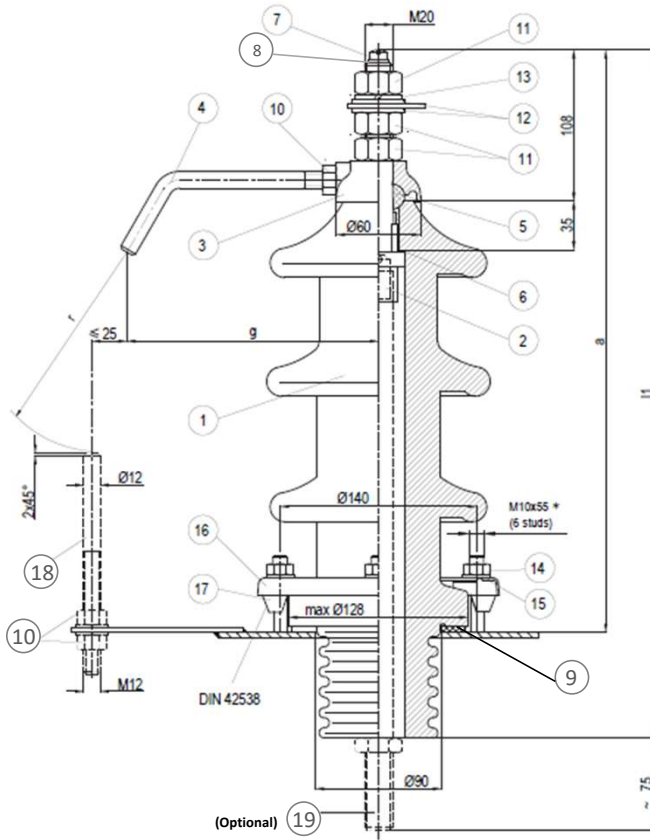


Pos.	Qty. for			Description	Standard
	Type 10Nf	Type 20Nf	Type 30Nf		
1	1			Porcelain	10 Nf DIN 42531
		1			20 Nf DIN 42531
			1		20 Nf DIN 42531
2	1	1	1	Brass Stem (type DIN)	"D" DIN 42531
3	1	1	1	Brass cap (type DIN)	"E" DIN 42531
4	1	1		Upper Horn	K2 DIN 42531
			1		K3 DIN 42531
5	1	1	1	Donut Gasket "J"	"J" DIN 42531
6	1	1	1	Internal gasket "O"	"O" DIN 42531
7	1	1	1	Flat gasket "N"	"N" DIN 42531
8	3	3	3	Steel nuts	M8 ISO 4032-5
9	3	3	3	Brass Full nuts	M12 ISO 4032 Ms
10	2	2	2	Brass washer	13 DIN 125-Ms
11	1	1	1	Spring washer	12 DIN 43699
12	4	4	4	Steel nuts	M10 ISO 4032-5
13	4	4	4	Steel washer	10.5 DIN 125
14	1	1	1	Fixing ring	"A" DIN 42538
15	4	4	4	Alu-Pressbit	"E" DIN 42538
16	1	1	1	Lower Horn	K2 DIN 42531
17	1	1	1	Threaded Bolt	M12 (Optional)

Type	a	c	g	l1	Creepage Distance
10 Nf 250	310	85	150	371	305
20 Nf 250	385	155	150	461	450
30 Nf 250	485	220	170	561	600

HV BUSHINGS DIN 42532

10NF-20NF-30NF/630A DIN TYPE



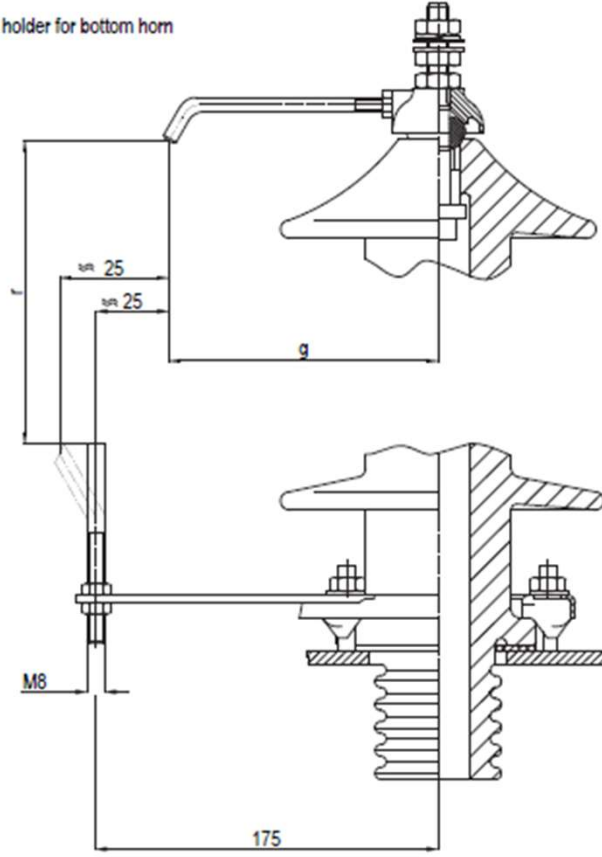
Pos.	Qty. for			Description	Standard
	Type 10Nf	Type 20Nf	Type 30Nf		
1	1			Porcelain	10 Nf DIN 42532
		1			20 Nf DIN 42532
			1		30 Nf DIN 42532
2	1	1	1	Stem	"D1" DIN 42532
3	1	1	1	Cap	"E" DIN 42532
4	1	1		Upper Horn	K2 DIN 42532
			1		K3 DIN 42532
5	1	1	1	Gasket Donut "J"	"J" DIN 42532
6	1	1	1	Internal gasket "O"	"O" DIN 42532
7	1	1	1	"T" Vent Screw	"T" DIN 42532
8	1	1	1	Flat Gasket "F"	"F" DIN 42532
9	1	1	1	Flat Gasket "N"	"N" 3150 DIN 42530
10	3	3	3	Steel nuts	M12 ISO 4032-5
11	3	3	3	Brass Full nuts	M20 ISO 4032-Ms
12	2	2	2	Brass washers	21 DIN 125-Ms
13	1	1	1	Spring washers	21 DIN 127-St
14	6	6	6	Steel nuts	M10 ISO 4032-5
15	6	6	6	Steel washer	10.5 DIN 125-St
16	1	1	1	Fixing ring	"B" DIN 42538
17	6	6	6	Alu-clamping	"E" DIN 42538
18	1	1	1	Lower Horn	K2 DIN 42531
19	1	1	1	Threaded Bolt	M20 Optional

Type	a	c	g	l1	Creepage Distance
10 Nf 630	342	85	180	403	305
20 Nf 630	417	155	180	493	440
30 Nf 630	522	220	200	618	662

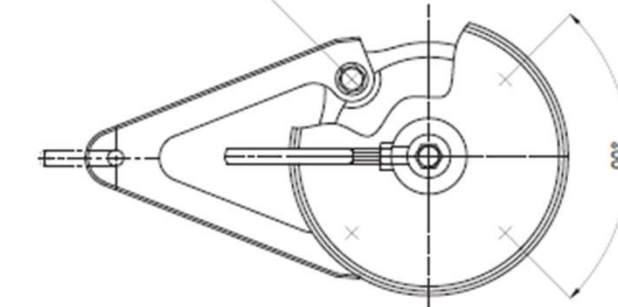
CONSTRUCTION ARCING HORN " V "

SUPPORT RATED CURRENT 250A

Arcing horns with "V" bracket holder for bottom horn



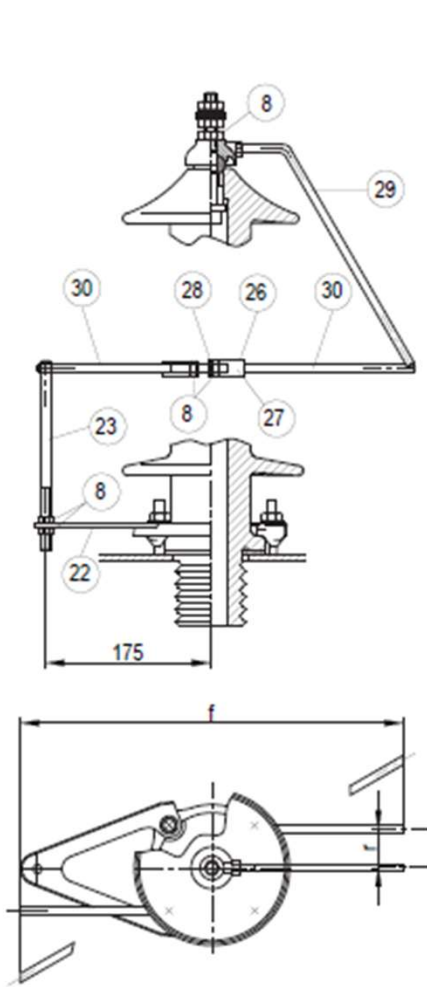
4 Studs M10x55 on Ø123



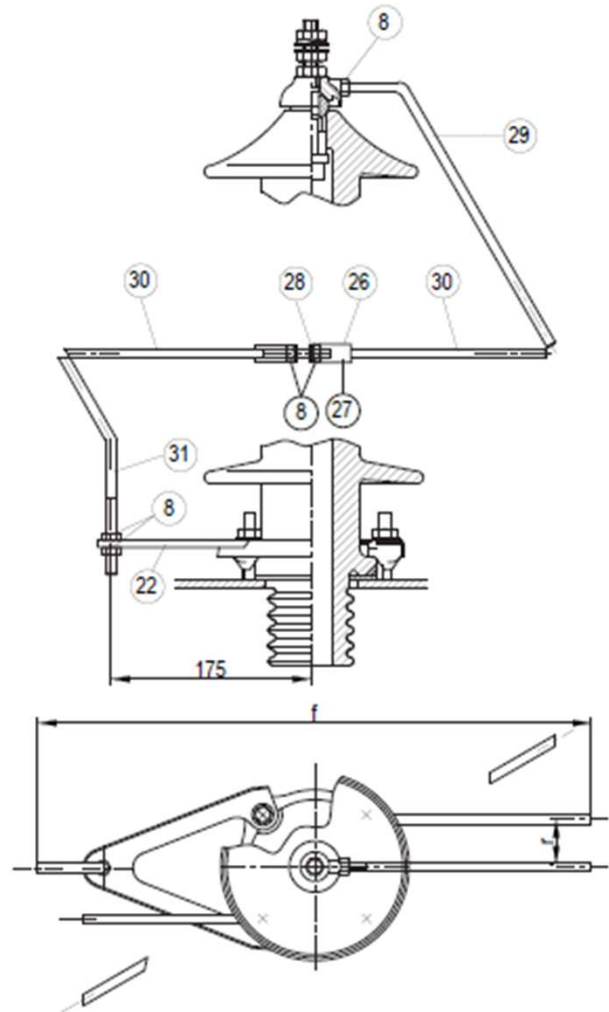
Type	r	g
10 Nf/250	85	150
20 Nf/250	155	150
30 Nf/250	220	170

CONSTRUCTION ARCING HORN FOR SPECIAL APPLICATIONS HIGH CREEPAGES - 250A

Type 20NF



Type 30 NF

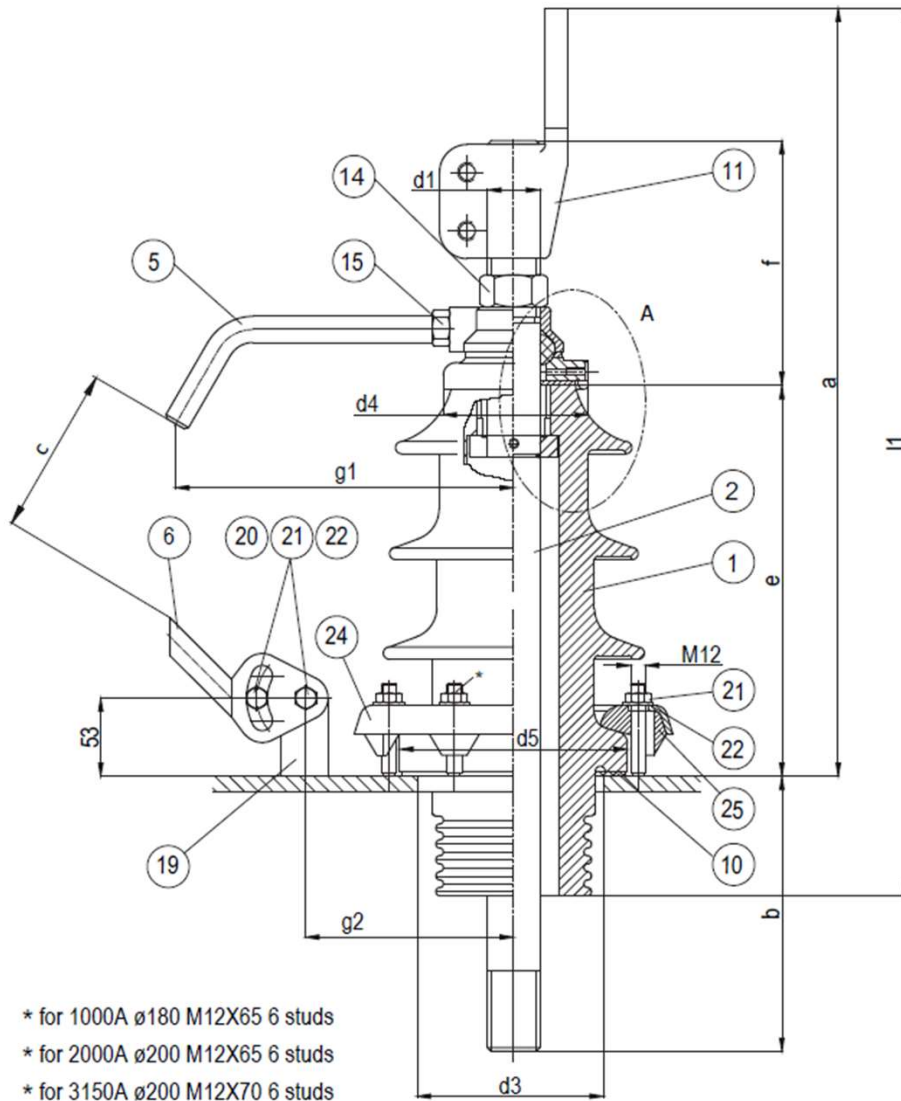


Pos.	Qty.	Description
8	7	Steel nut M8 ISO 4032
22	1	Steel "V" bracket
23	1	Bottom arcing horn
26	2	Rubber gasket
27	2	Half-collar
28	2	Spring washer DIN 127
29	1	Top arcing horn
30	2	Medium arcing horn
31	1	Bottom arcing horn

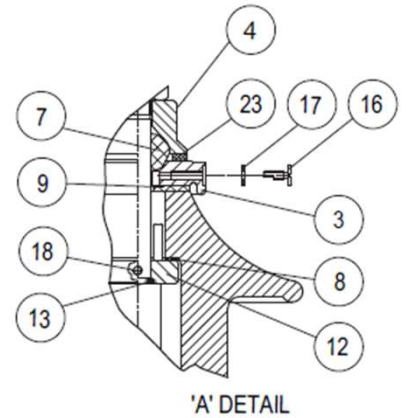
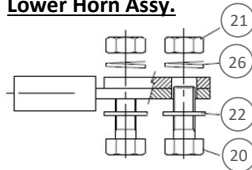
Type	Voltage	f	r
20/250	20NF	385	50
30/250-580-690	30NF	485	
40/250	30NF	485	
33/250-990	30NF	485	
33/250-1260-1320	30NF	485	
33/250-1650	30NF	485	

HV BUSHINGS DIN 42533

10NF-20NF-30NF/1000A-3150A DIN TYPE



Lower Horn Assy.



>> Detail on the next pages

HV BUSHINGS DIN 42533

10NF-20NF-30NF/1000A-3150A DIN TYPE

Specifications

Type	Current A	a	b	c	d1	d3	d4	d5	e	f	g1	g2	l1	Creepage Distance
10 Nf 1000	1000	455	158	85	M30 x2	110	100	163	239	148	225	138	541	295
20 Nf 1000		530	168	155	M30 x2	110	100	163	314	148	225	138	626	445
30 Nf 1000		635	198	220	M30 x2	110	100	163	419	148	285	138	756	635
10 Nf 2000	2000	530	158	85	M42 x3	135	120	183	239	178	230	148	616	295
20 Nf 2000		605	168	155	M42 x3	135	120	183	314	178	230	148	701	445
30 Nf 2000		710	198	220	M42 x3	135	120	183	419	178	290	148	831	635
10 Nf 3150	3150	560	158	85	M48 x3	135	120	183	239	183	235	148	646	295
20 Nf 3150		635	168	155	M48 x3	135	120	183	314	183	235	148	731	445
30 Nf 3150		740	198	220	M48 x3	135	120	183	419	183	295	148	861	635

HV BUSHINGS DIN 42533

10NF-20NF-30NF/1000A DIN TYPE

Pos.	Qty. for			Description	Standard
	Type 10Nf	Type 20Nf	Type 30Nf		
1	1			Porcelain	10 Nf 1000 DIN 42533
		1			
			1		
2	1	1	1	Connection bolt	"D" 1000 DIN 42533
3	1	1	1	Cap	"E" 1000 DIN 42533
4	1	1	1	Washer	"F" 1000 DIN 42533
5	1	1		Upper Horn	"G10" DIN 42533
			1		"G30" DIN 42533
6	1			Lower Horn	"H10" DIN 42533
		1			"H20 f" DIN 42533
			1		"H30" DIN 42533
7	1	1	1	Sealing ring gasket	"J" 1000 DIN 42533
8	1	1	1	Internal gasket	"O" 1000 DIN 42533
9	1	1	1	Plain gasket	"M" 1000 DIN 42533
10	1	1	1	Flange gasket	"N" 1000 DIN 42533
11	1	1	1	Flag	"BP 30" DIN 43675
12	1	1	1	Press ring	"P" 1000 DIN 42533
13	1	1	1	"S" ring	"S" 1000 DIN 42533
14	1	1	1	Brass Full nuts	M30x2 ISO 4032-MS
15	1	1	1	Steel nut	M20 ISO 4032-m5
16	1	1	1	"R" bolt	"R" DIN 42533
17	1	1	1	Washer	6.4 DIN 125-It
18	2	2	2	Setscrew	M8x15 DIN 553
19	1	1	1	"T" support	"T" DIN 42533
20	2	2	2	Bolt	M12x30 ISO 4017-m 5.8
21	8	8	8	Nut	M12 ISO 4032-m5
22	8	8	8	Plain washer	"B12" DIN 127
23	1	1	1	Contact washer	"U" 1000 DIN 42533
24	1	1	1	Fixing ring	"C" DIN 42538
25	6	6	6	Alu-clamping	"F" DIN 42538
26	2	2	2	Spring Washer	13 DIN127

HV BUSHINGS DIN 42533

10NF-20NF-30NF/2000A DIN TYPE

TRANSFORMER ACCESSORIES

Pos.	Qty. for			Description	Standard
	Type 10Nf	Type 20Nf	Type 30Nf		
1	1			Porcelain	10 Nf 3150 DIN 42533
		1			20 Nf 3150 DIN 42533
			1		30 Nf 3150 DIN 42533
2	1	1	1	Connecting bolt	"D" 2000 DIN 42533
3	1	1	1	Cap	"E" 2000 DIN 42533
4	1	1	1	Washer	"F" 2000 DIN 42533
5	1	1		Upper Horn	"G10" DIN 42533
			1		"G30" DIN 42533
6	1			Lower Horn	"H10" DIN 42533
		1			"H20 f" DIN 42533
			1		"H30" DIN 42533
7	1	1	1	Sealing ring gasket	"J" 2000 DIN 42533
8	1	1	1	Internal gasket	"O" 2000 DIN 42533
9	1	1	1	Plain gasket	"M" 3150 DIN 42533
10	1	1	1	Flange gasket	"N" 3150 DIN 42533
11	1	1	1	Flag (Brass)	"CP-M42x3" DIN 43675
12	1	1	1	Presring	"P" 2000 DIN 42533
13	1	1	1	"S" ring	"S" 2000 DIN 42533
14	1	1	1	Brass Full nuts	M42x3 ISO 4032-Ms
15	1	1	1	Steel nut	M20 ISO 4032-m5
16	1	1	1	"R" bolt	"R" DIN 42533
17	1	1	1	Washer	6.4 DIN 125-It
18	2	2	2	Setscrew	M8x15 DIN 553
19	1	1	1	"T" Support	"T" DIN 42533
20	2	2	2	Bolt	M12x30 ISO 4017-m 5.8
21	8	8	8	Nut	M12 ISO 4032-m5
22	8	8	8	Plain washer	"B12" DIN 127
23	1	1	1	Contact washer	"U" 2000 DIN 42533
24	1	1	1	Fixing ring	"D" DIN 42538
25	6	6	6	Alu-clamping	"F" DIN 42538
26	2	2	2	Spring Washer	13 DIN127

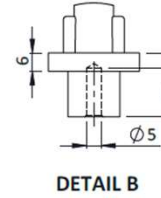
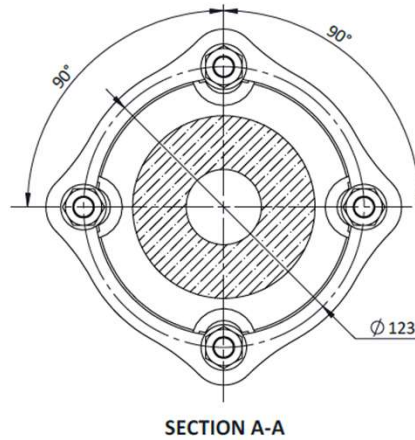
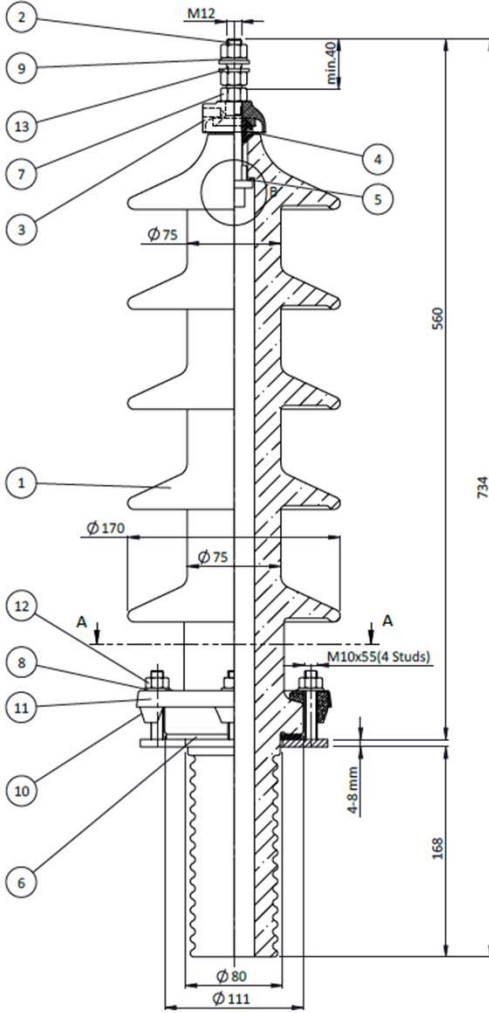
HV BUSHINGS DIN 42533

10NF-20NF-30NF/3150A DIN TYPE

Pos.	Qty. for			Description	Standard
	Type 10Nf	Type 20Nf	Type 30Nf		
1	1			Porcelain	10 Nf 3150 DIN 42533
		1			20 Nf 3150 DIN 42533
			1		30 Nf 3150 DIN 42533
2	1	1	1	Connecting bolt	"D" 3150 DIN 42533
3	1	1	1	Cap	"E" 3150 DIN 42533
4	1	1	1	Washer	"F" 3150 DIN 42533
5	1	1		Upper Horn	"G10" DIN 42533
			1		"G30" DIN 42533
6	1			Lower Horn	"H10" DIN 42533
		1			"H20 f" DIN 42533
			1		"H30" DIN 42533
7	1	1	1	Sealing ring gasket	"J" 3150 DIN 42533
8	1	1	1	Internal gasket	"O" 3150 DIN 42533
9	1	1	1	Plain gasket	"M" 3150 DIN 42533
10	1	1	1	Flange gasket	"N" 3150 DIN 42533
11	1	1	1	Flag (Brass)	"CP-M48x3" DIN 43675
12	1	1	1	Presring	"P" 3150 DIN 42533
13	1	1	1	"S" ring	"S" 3150 DIN 42533
14	1	1	1	Brass Full nuts	M48x3 ISO 4032-Ms
15	1	1	1	Steel nut	M20 ISO 4032-m5
16	1	1	1	"R" bolt	"R" DIN 42533
17	1	1	1	Washer	6.4 DIN 125-It
18	1	1	1	Setscrew	M8x15 DIN 553
19	1	1	1	"T" Support	"T" DIN 42533
20	2	2	2	Bolt	M12x30 ISO 4017-m 5.8
21	8	8	8	Nut	M12 ISO 4032-M5
22	8	8	8	Plain washer	"B12" DIN 127
23	1	1	1	Contact washer	"U" 2000 DIN 42533
24	1	1	1	Fixing ring	"D" DIN 42538
25	6	6	6	Alu-clamping	"F" DIN 42538
26	2	2	2	Spring Washer	13 DIN127

HV BUSHINGS DIN 42532

40NF/250A DIN TYPE

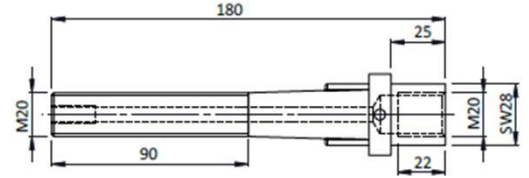
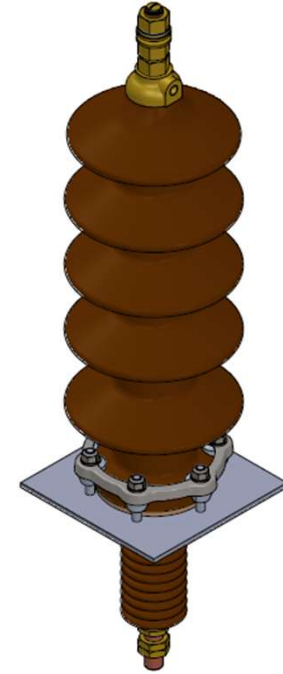
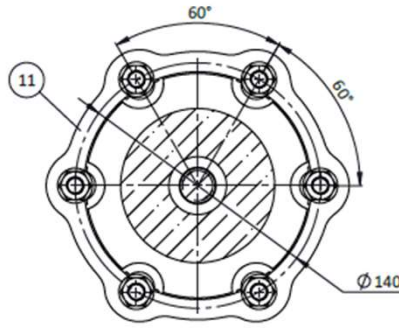
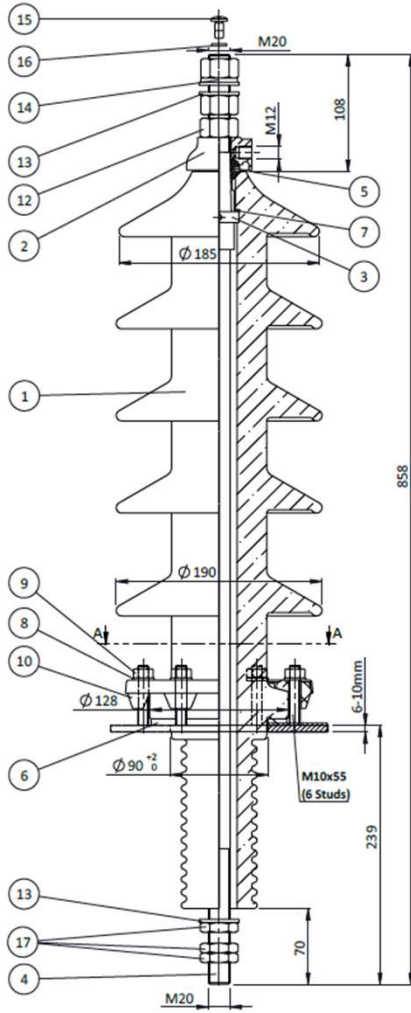


CREEPAGE DISTANCE = 810mm

13	BRASS WASHER M12 DIN 125	802PL120P3	2	Brass
12	STEEL NUT M10 ISO 4032	801SM10003	4	Steel
11	FIXING RING	AC-NI-NF-425383	1	Steel
10	ALU-CLAMPING DIN 42538	AL-NI-NF-42532	4	AL
9	SPRING WASHER M12 DIN 127	804YR12000	1	Stainless Steel
8	PLAIN WASHER M10 DIN 125	802PL10003	4	Steel
7	BRASS NUT M12 ISO 4032	801SM120P3	3	Brass
6	"N" GASKET 108x76x4	N-NI_NF-425311	1	Cork AMORIM TD1049
5	"O" GASKET 32x15x2	O-NI-NF-42531	1	Klingerit
4	"J" GASKET 30x12x18	J-NI_NF-42531	1	NBR
3	"E" CAP	E-Ni-NF-42531	1	Brass
2	"D" BOLT DIN 42531	D-NI-NF-425314	1	Brass
1	PORCELAIN	40NF250810	1	Ceramic Porcelain
ITEM NO.	DESCRIPTION	CODE NUMBER	QTY	MATERIAL

HV BUSHINGS DIN 42532

40NF/630A DIN TYPE

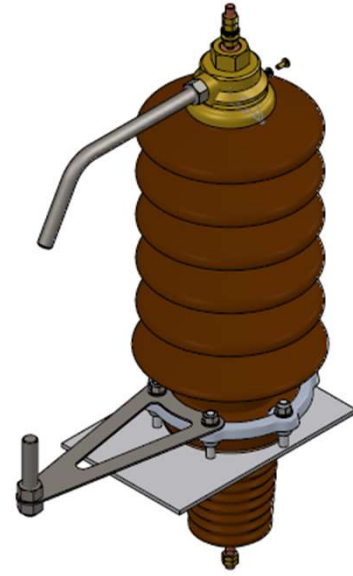
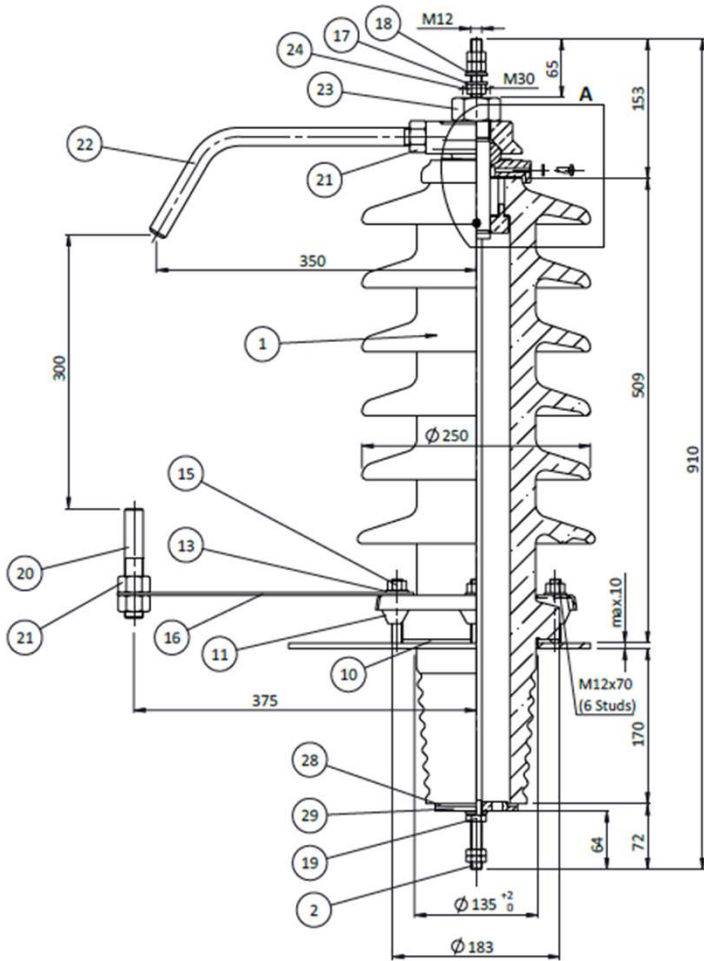


"D" BOLT DETAILS

CREEPAGE DISTANCE =830mm

17	HALF NUT M20 UNI 5589	801SM200P2-UNE	3	Brass
16	WASHER "M8"	F-NI-NF-42532	1	Polyamid
15	"R" BOLT M8x15	R-42533	1	Brass
14	SPRING WASHER M20 DIN 127	804YR20000	1	Stainless Steel
13	BRASS WASHER M20 DIN 125	802PL200P3	3	Brass
12	BRASS NUT M20 ISO 4032	801SM200P3	3	Brass
11	FIXING RING "B" DIN 42538	42538-B	1	Steel
10	ALU-CLAMPING DIN 42538	AL-NI-NF-42532	6	AL
9	STEEL NUT M10 ISO 4032	801SM10003	6	Steel
8	PLAIN WASHER M10 DIN 125	802PL10003	6	Steel
7	"O" GASKET 38x24X2	O-NI-NF-42532	1	Klingerit
6	"N" GASKET 125x90X6	N1-3150-425301	1	Cork AMORIM TD1049
5	"J" GASKET 38x20x18	J-NI-NF-42532	1	NBR
4	COPPER CONNECTOR	S-40NF-6301	1	Copper
3	"D" BOLT	D-NI-NF-42532	1	Copper
2	"E" CAP	E-NI-NF-42532	1	Brass
1	PORCELAIN	40NF630830	1	Ceramic Porcelain
ITEM NO.	DESCRIPTION	CODE NUMBER	QTY	MATERIAL

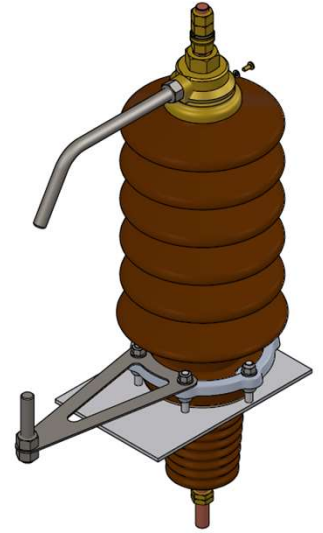
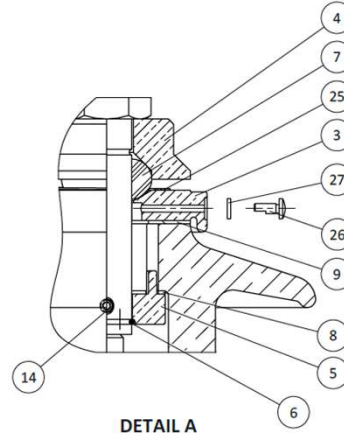
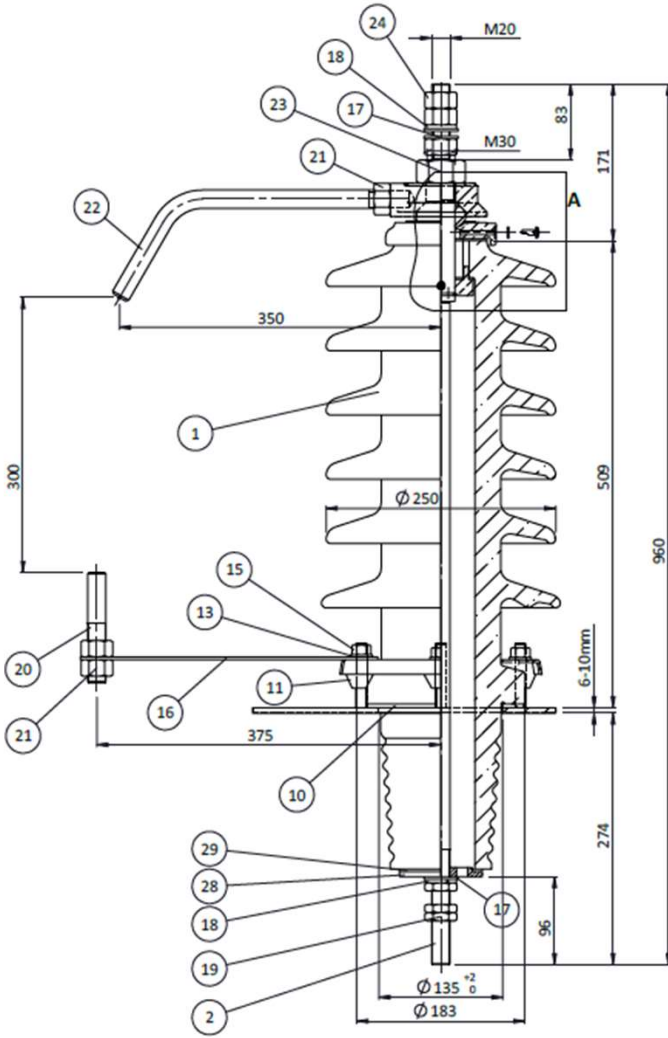
HV BUSHINGS DIN 42534 52NF/250A DIN TYPE



CREEPAGE DISTANCE=1080mm

29	PLAIN WASHER	PL52F250	1	Brass
28	"X" GASKET 90x69x3	X-52F-6301	1	Cork AMORIM TD1049
27	U -WASHER	U-1000-42533	1	Copper
26	"R" BOLT GASKET M6	CK-0014	1	Klingerit
25	"R" BOLT	R-42533-M6	1	Brass
24	BRASS NUT M12 ISO 4032	801SM120P3	3	Brass
23	BRASS NUT M30x2 ISO 4032	801SM300P3	1	Brass
22	ARCING HORN TOP	G-52F-42534	1	Steel
21	NUT M20 ISO 4032	801SM20003	3	Steel
20	BOTTOM ARCING HORN	G-10F-63003	1	Steel
19	HALF NUT M12 UNI 5589	801SM120P2-UNE	3	Brass
18	SPRING WASHER M12 DIN 127	804YR12003	2	Steel
17	BRASS WASHER M12 DIN 125	802PL120P3	3	Brass
16	"V" SUPPORT	UT425343	1	Steel
15	NUT M12	801SM12003	6	Steel
14	SET SCREW M8x15	800ST08X015-3	2	Steel
13	PLAIN WASHER M12 DIN 125	802PL12003	6	Steel
12	FIXING RING "D" DIN 42538	AB-NI-NF-425382	1	AL
11	AL-CLAMPING DIN 42538	AL-NI-NF-42533	6	AL
10	"N" GASKET 180x135x4	N-4500-425301	1	Cork AMORIM TD1049
9	"M" GASKET 100x50x2	M-3150-425331	1	Cork AMORIM TD1049
8	"O" GASKET 70x50x2	O-3150-425331	1	Cork AMORIM TD1049
7	"J" GASKET 52x30x24	J-1000-42533	1	NBR
19	"S" RING	S-1000-42533	1	Copper
5	PRESSING RING	P-52F-1000	1	Brass
4	"F" CAP	F-52F-1000	1	Brass
3	"E" CAP	E-52F-1000	1	Brass
2	COPPER CONNECTOR	Z-52F-250	1	Copper
1	PORCELAIN	52NF42534	1	Ceramic Porcelain
ITEM NO.	DESCRIPTION	CODE NUMBER	QTY	MATERIAL

HV BUSHINGS DIN 42534 52NF/630A DIN TYPE

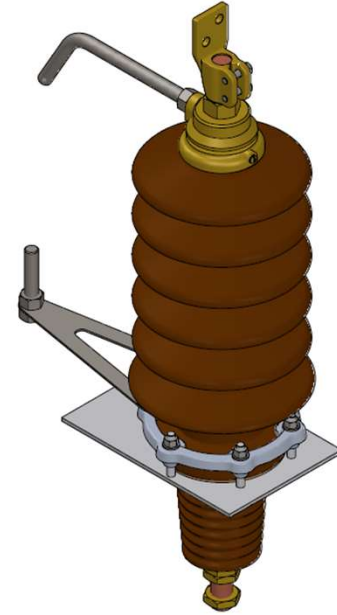
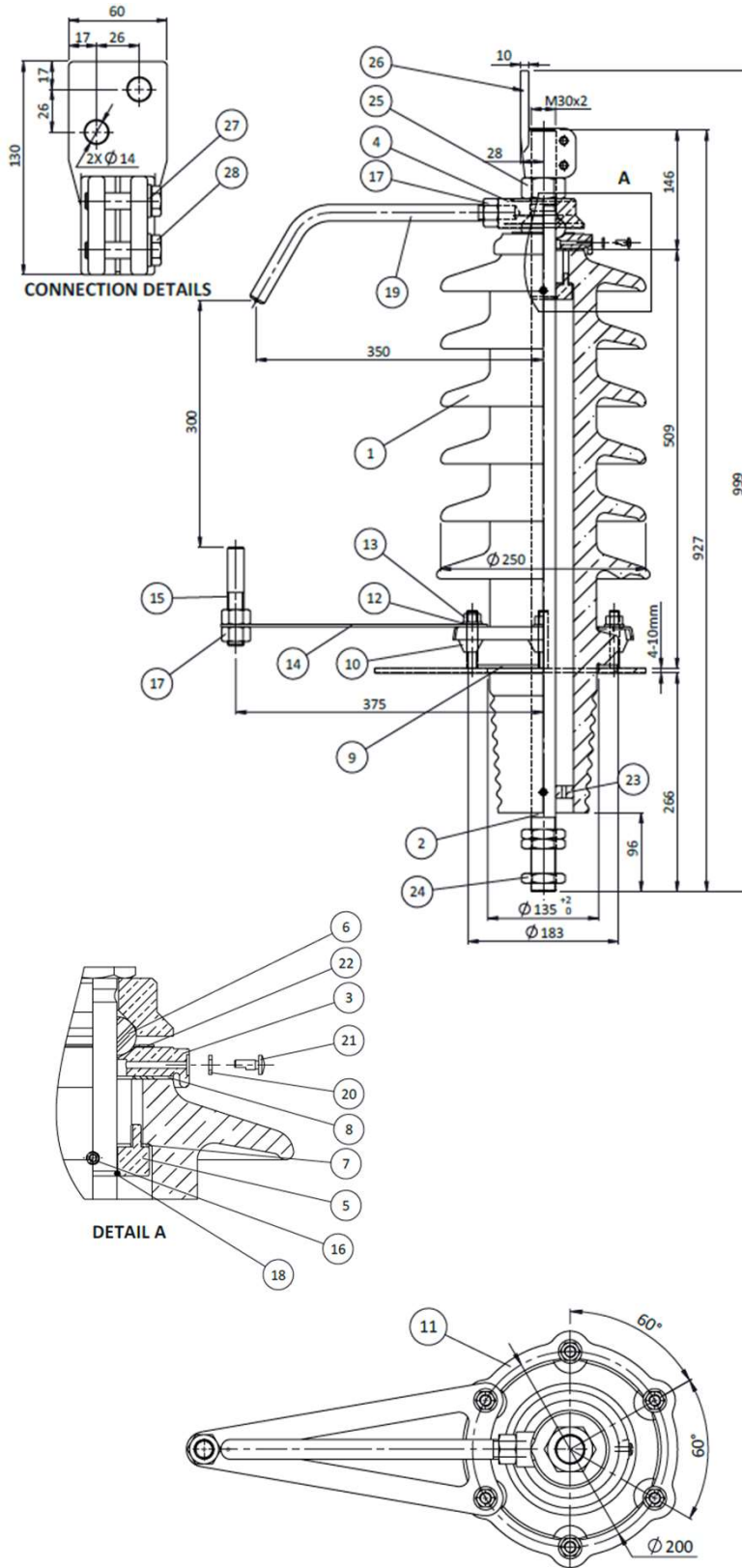


CREEPAGE DISTANCE=1080mm

29	"X" GASKET 90x69x3	X-52F-6301	1	Cork AMORIM TD1049
28	PLAIN WASHER	PL52F250	1	Brass
27	"R" BOLT GASKET M6	CK-0014	1	Klingerit
26	"R" BOLT	R-42533-M6	1	Brass
25	U -WASHER	U-1000-42533	1	Copper
24	BRASS NUT M20 ISO 4032	801SM200P3	3	Brass
23	BRASS NUT M30x2 ISO 4032	801SM300P3	1	Brass
22	ARCING HORN TOP	G-52F-42534	1	Steel
21	NUT M20 ISO 4032	801SM20003	3	Steel
20	BOTTOM ARCING HORN	G-10F-63003	1	Steel
19	HALF NUT M20 UNI 5589	801SM200P2-UNE	3	Brass
18	SPRING WASHER M20 DIN 127	804YR20003	2	Steel
17	BRASS WASHER M20 DIN 125	802PL200P3	3	Brass
16	"V" SUPPORT	UT425343	1	Steel
15	NUT M12	801SM12003	6	Steel
14	SET SCREW M8x15	800ST08X015-3	2	Steel
13	PLAIN WASHER M12 DIN 125	802PL12003	6	Steel
12	FIXING RING "D" DIN 42538	AB-NI-NF-425382	1	AL
11	AL-CLAMPING DIN 42538	AL-NI_NF-42533	6	AL
10	"N" GASKET 180x135x4	N-4500-425301	1	Cork AMORIM TD1049
9	"M" GASKET 100x50x2	M-3150-425331	1	Cork AMORIM TD1049
8	"O" GASKET 70x50x2	O-3150-425331	1	Cork AMORIM TD1049
7	"J" GASKET 52x30x24	J-1000-42533	1	NBR
6	"S" RING	S-1000-42533	1	Copper
5	PRESSING RING	P-52F-1000	1	Brass
4	"F" CAP	F-52F-1000	1	Brass
3	"E" CAP	E-52F-1000	1	Brass
2	CONNECTING BOLT	Z-52F-63013	1	Copper
1	PORCELAIN	52NF42534	1	Ceramic Porcelain
ITEM NO.	DESCRIPTION	CODE NUMBER	QTY	MATERIAL

HV BUSHINGS DIN 42534

52NF/1000A DIN TYPE

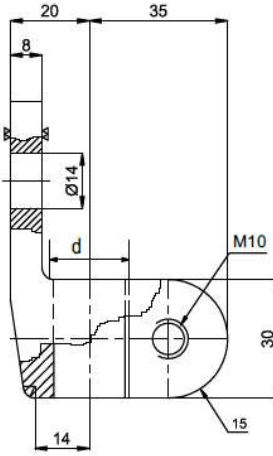
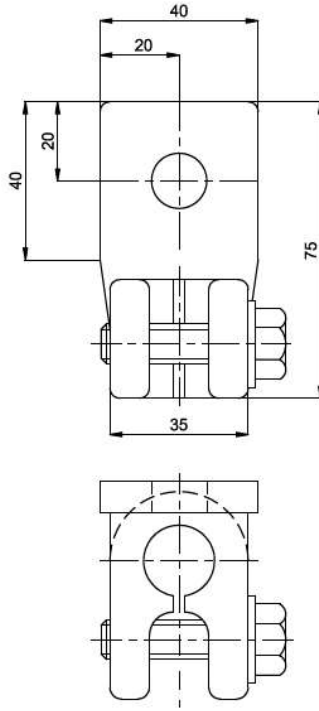


CREEPAGE DISTANCE = 1080mm

28	BOLT M10x40 ISO 24017	8000A10x040-3	2	Steel
27	PLAIN WASHER M10 DIN 125	802PL10003	2	Steel
26	CONNECTION FLAG	BP-1000-42530	1	Brass
25	BRASS NUT M30x2 ISO 4032	801SM300P3	1	Brass
24	HALF NUT M30 UNI 5589	801SM300P2-UNE	3	Brass
23	CENTERING RING	PB-52-1000	1	Brass
22	U - WASHER	U-1000-42533	1	Copper
21	"R" BOLT	R-42533-M6	1	Brass
20	"R" BOLT GASKET M6	CK-0014	1	Klingerit
19	ARCING HORN TOP	G-52F-42534	1	Steel
18	"S" RING	S-1000-42533	1	Copper
17	NUT M20 ISO 4032	801SM20003	3	Steel
16	SET SCREW M8x15	800ST08X015-3	4	Steel
15	BOTTOM ARCING HORN	G-10F-63003	1	Steel
14	"V" SUPPORT	UT425343	1	Steel
13	NUT M12	801SM12003	6	Steel
12	PLAIN WASHER M12 DIN 125	802PL12003	6	Steel
11	FIXING RING "D" DIN 42538	AB-NI-NF-425382	1	AL
10	AL-CLAMPING DIN 42538	AL-NI_NF-42533	6	AL
9	"N" GASKET 180x135x4	N-4500-425301	1	Cork AMORIM TD1049
8	"M" GASKET 100x50x2	M-3150-425331	1	Cork AMORIM TD1049
7	"O" GASKET 70x50x2	O-3150-425331	1	Cork AMORIM TD1049
6	"J" GASKET 52x30x24	J-1000-42533	1	NBR
5	PRESSING RING	P-52F-1000	1	Brass
4	"F" CAP	F-52F-1000	1	Brass
3	"E" CAP	E-52F-1000	1	Brass
2	CONNECTING BOLT	Z-52F-1000-4	1	Copper
1	PORCELAIN	52NF42534	1	Ceramic Porcelain
ITEM NO.	DESCRIPTION	CODE NUMBER	QTY	MATERIAL

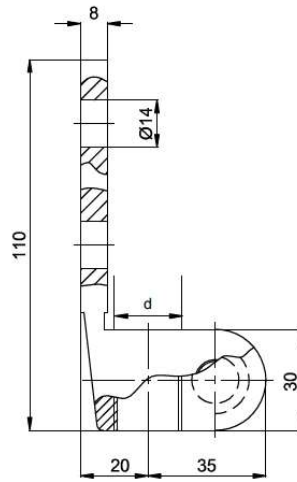
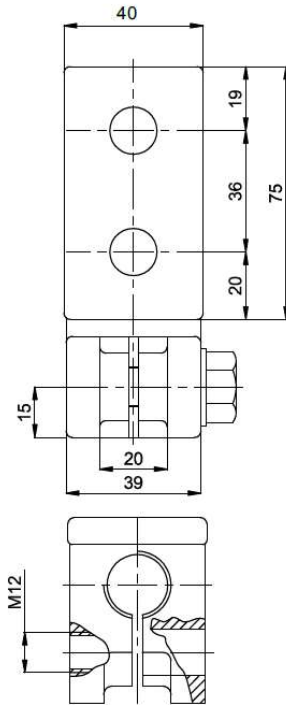
CONNECTION FLAG AND ANSI CLAMP

BUSHING CONNECTION FLAG DIN 43675 RATED 250A-630A



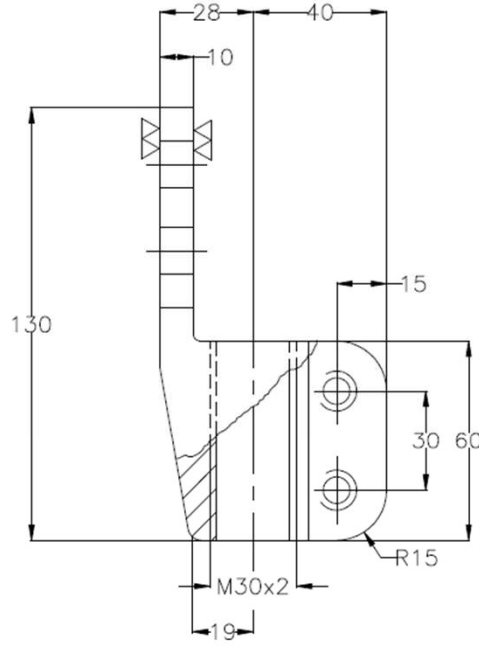
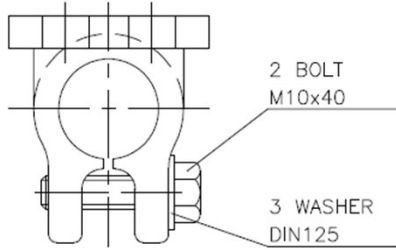
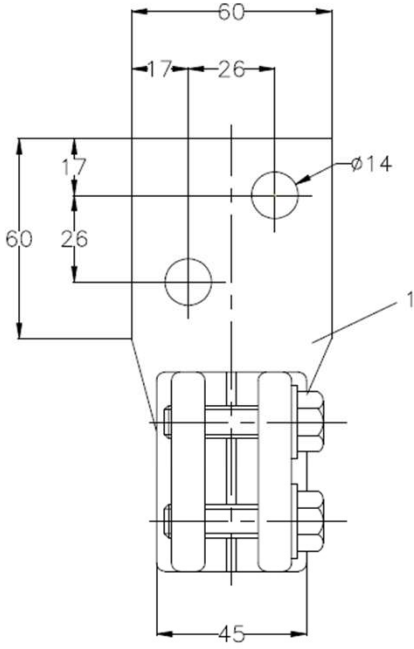
Type	d
DP 250	M12x1.75
DP 630	M20x2.5

Brass Flag DIN 43675 "DP"
Material: Brass (CuZn40Pb2)



Brass Flag (modified) "AP-EL"
Material: Brass (CuZn40Pb2)

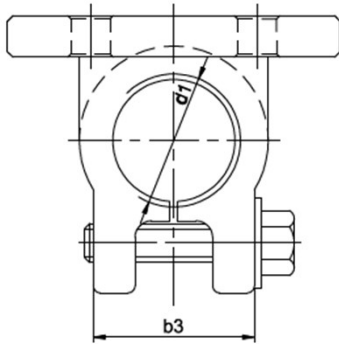
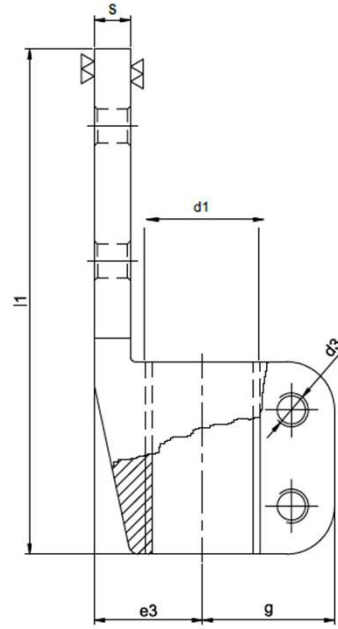
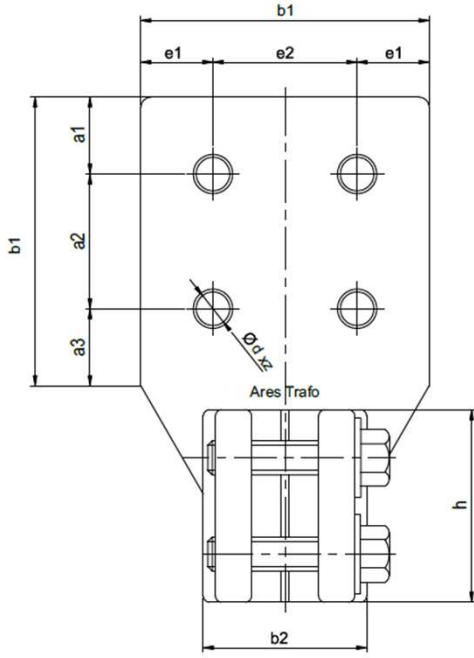
BUSHING CONNECTION FLAG DIN 43675 RATED 1000A



Pos.	Decription	Material	Qty
1	Washer M12	SS A2-70	2
2	Bolt M12x65	SS A2-70	2
3	Connection Flag	Brass	1

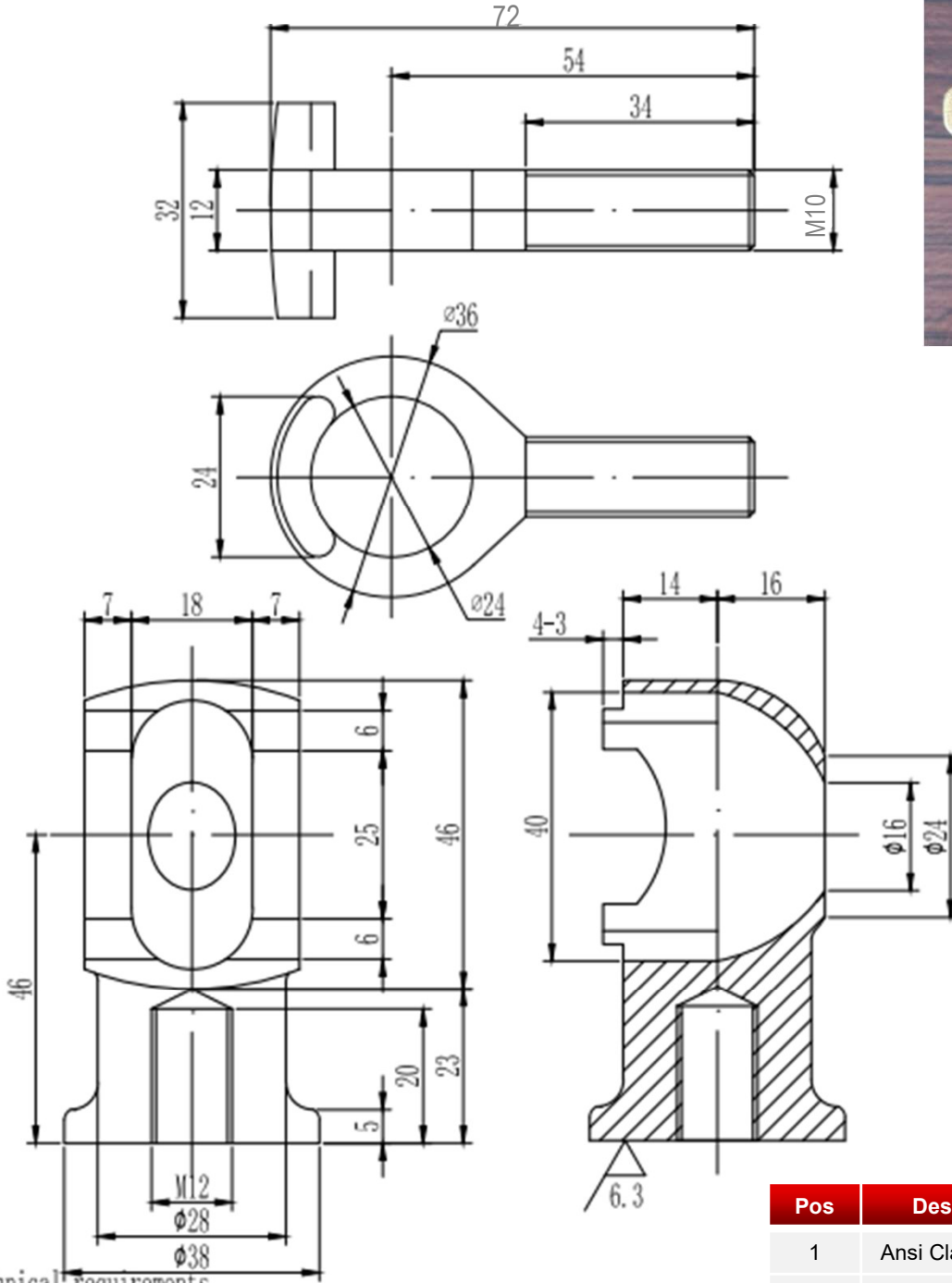
BUSHING CONNECTION FLAG DIN 43675

RATED 2000A-4500A



Type	d1	b1	e1	e2	b2	e3	h	a1	l1	a2	s	g	z	D	w(kg)
FP 2000	M42x3	10 0	25	50	58	40	80	20	190	40	15	55	4	14	3.20
FP 3150	M48x3	12 0	30	60	68	45	80	20	210	40	15	55	4	14	4.35
FP 4500	M55x3	15 0	40	75	85	30	90	40	250	70	20	75	4	18	7.55

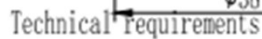
ANSI CLAMP M12 - WITH EYE BOLT RATED 250A



Technical Requirements

- 1, all holes should be chamfered and deburring treatment
- 2, surface does not allow pores, sand holes, cracks
- 3, conductive surface does not allow scratches, protrusions, pits;
4. The thickness of tin coating shall not be less than 12 μ m.

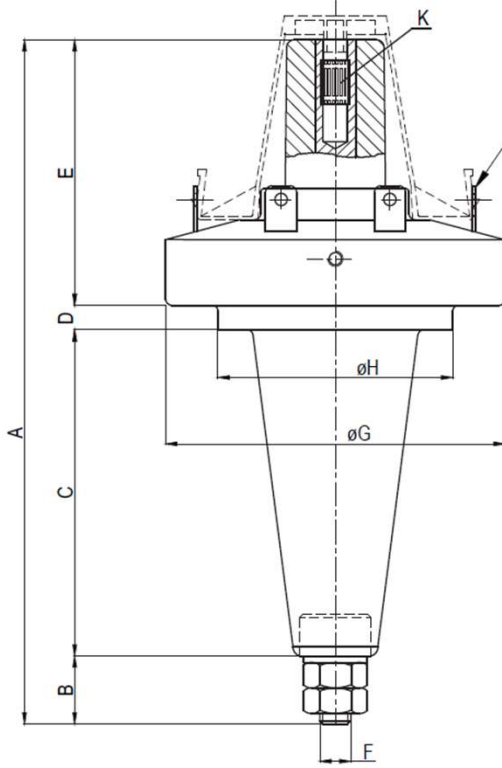
Pos	Description	Material	Qty
1	Ansi Clamp M12	Brass	1
2	Eye Bolt M10	Brass	1
3	Spring Washer	Stainless Steel	1
4	Nut M10	Brass	1



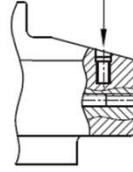
- | Pos | Description | Material | Qty |
|-----|----------------|-----------------|-----|
| 1 | Ansi Clamp M20 | Brass | 1 |
| 2 | Eye Bolt M12 | Brass | 1 |
| 3 | Spring Washer | Stainless Steel | 1 |
| 4 | Nut M12 | Brass | 1 |

HV PLUG IN BUSHING AND CONNECTOR

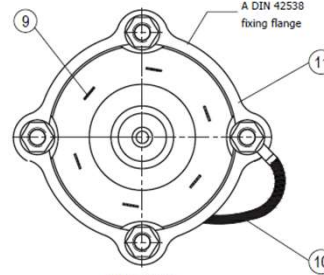
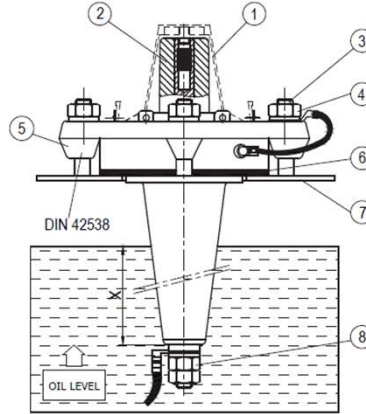
PLUG IN BUSHING 24kV ÷ 36kV/250A ÷ 630A INTERFACE A EN50180



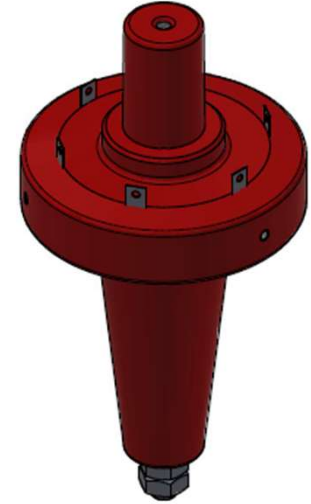
CONNECTION COUPLING



Assembly Condition



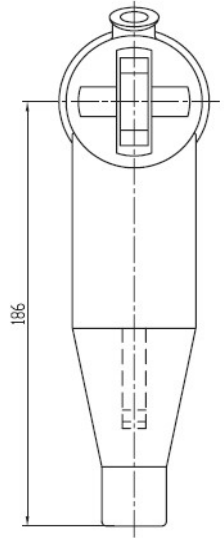
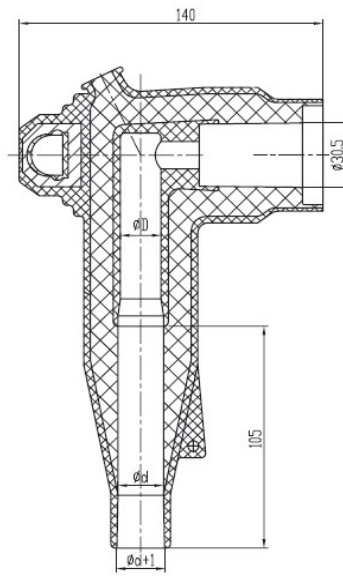
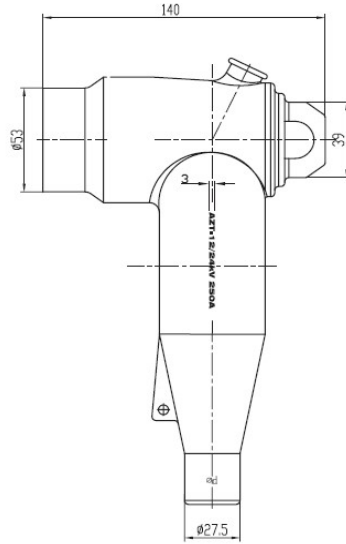
DIN 42538
GERMAN STANDARDS



Pos	Description	Qty
1	Protective Cover	1
2	Connection Interface	1
3	Stud Screw	4
4	Fixing Nuts	4
5	Alu Fixing Clamp - DIN 42538	4
6	Gasket	1
7	Transformer	
8	Connection Bolts	1
9	Fixing Shoe	6
10	Earth Jumper	1
11	Fixing Flange A DIN 42538	1

INSULATOR TYPE	DIMENSIONS								CONTACT TYPE	CONNECTION COUPLING	
	A	B	C	D	E	F	G	H		TYPE	Qty
MKP24/250U	224	22	108	8	86	M10	Ø111	Ø76	SLIDING CONTACT	TERMINAL	6
MKP24/250K	189	22	73	8	86	M10	Ø111	Ø76	SLIDING CONTACT	TERMINAL	6
MKP24/250KB WITH THREADED INSERTS	189	22	73	8	86	M10	Ø111	Ø76	M6	THREAD M6x12	2
MKP24/250U1	284	22	168	8	86	M10	Ø111	Ø76	SLIDING CONTACT	TERMINAL	6
MKP36/250	240	22	80	8	130	M10	Ø111	Ø75	SLIDING CONTACT	TERMINAL	4
MKP36/400	330,5	41,5	147	10	132	M16	Ø128	Ø87	SLIDING CONTACT	TERMINAL	4
MKP36/630	332	41,5	147	10	133,5	M16	Ø128	Ø87	M16	THREAD M16	/

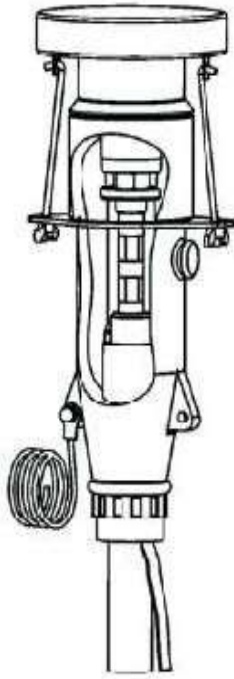
ELBOW CONNECTOR 250A



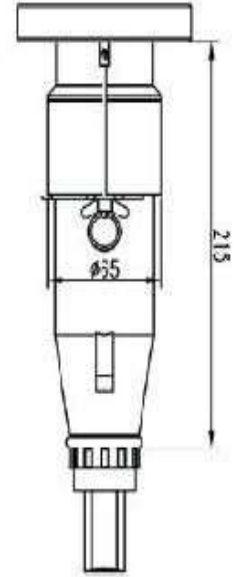
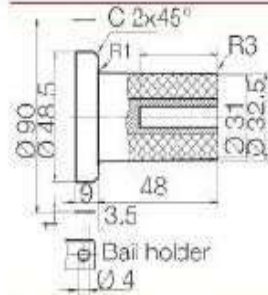
ELBOW CONNECTOR TYPE	VOLTAGE Um (kV)	CURRENT Ir (A)	CONDUCTOR SIZE (mm ²)	
			MIN	MAX
AZT-12/250	12	250	35	120
AZT-17.5/250	17.5	250	35	120
AZT-24/250	24	250	35	120

DIMENSION	CONDUCTOR SIZE (mm ²)				
	35	50	70	95	120
d	15	15	18	18	21
D	16,3	16,3	18,7	18,7	18,7

STRAIGHT CONNECTOR 250A



AZC-24/250A



Standard bushing EN 50181
200 series 250 A
Contact type: Plug-in $\phi 7.9 \text{ mm}$
Interface type: A

STRAIGHT CONNECTOR TYPE	VOLTAGE U_m (kV)	CURRENT I_r (A)	CONDUCTOR SIZE (mm ²)	
			MIN	MAX
AZC-12/250	12	250	35	120
AZC-17.5/250	17.5	250	35	120
AZC-24/250	24	250	35	120