ENERGOINVEST
Rasklopna Oprema a.d.

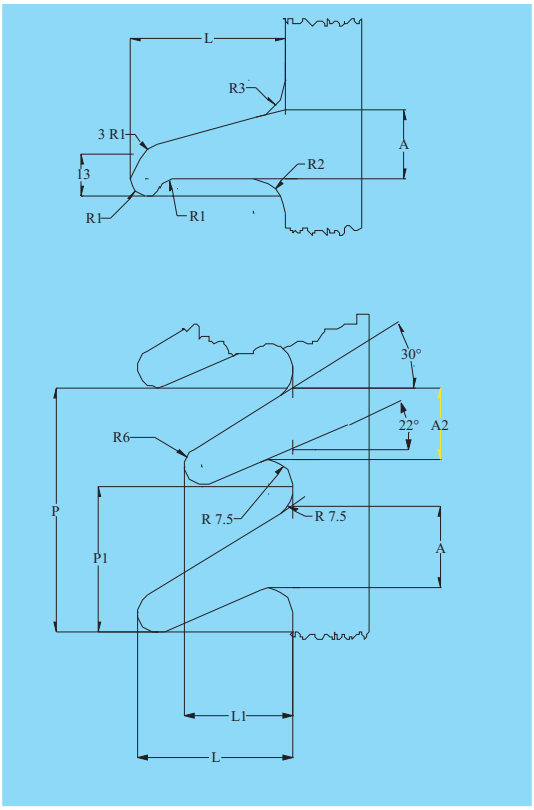
ELECTROTECHNICAL PORCELAIN INSULATOR

A product scope of the Factory includes high voltage and medium voltage apparatus insulators as a result of many years experience in electro technical porcelain production and Westinghouse' license technology.
According to their application, insulators are designed as follow:

- insulators for circuit breaker and switchgear, in general
- different bushing shells
- switch and bus supports
- other types

Upon Customer's request, mantling metal parts (reinforcement) can be delivered and glazed in brown, gray or white.
Insulators are marked with Energoinvest's trade mark and the year of manufacturing, but on Customer's request, other data can be marked on the insulator, too.
Tests are performed in accordance with IEC Regulations.

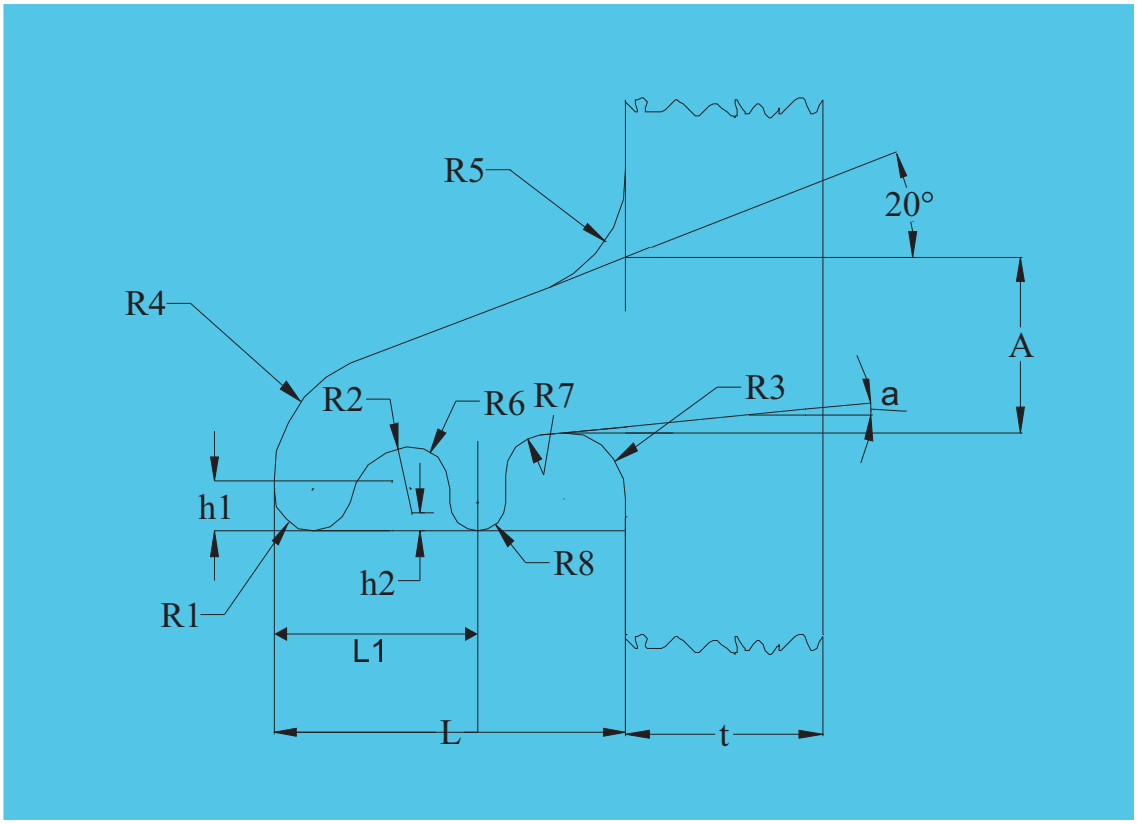
RECOMMENDED BASIC SHED FORMS (I-4)



Data	Symbol	Unit
Shed projection	L	inch 1,97 2,36
Interval	P_{min}	inch 1,58 1,90
Radius	R_1	inch 0,20 0,24
	R_2	inch 0,39 0,39
	R_3	inch 0,47 0,60
Thickness	A	inch 0,83 0,98
Leekage distance	Total	inch 4,84 5,75
Leekage distance	Protect at 90^{O}	inch 1,85 2,20

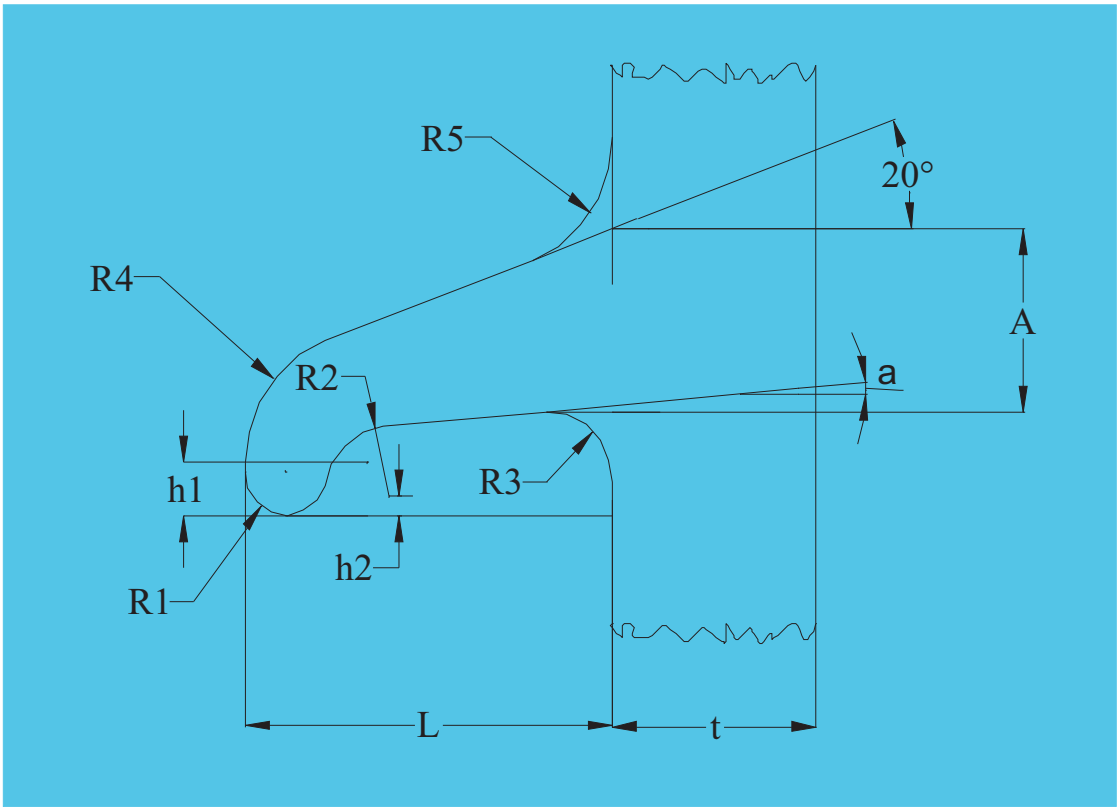
Data	Symbol	Unit		
Shed projection	L	inch 1,97	2,17	2,36
Projection	L_1	inch 1,38	1,58	1,77
Interval	P	inch 2,95	2,95	2,95
Interval	P_1	inch 1,77	1,77	1,77
Thickness	A_1	inch 0,98	1,00	1,02
Thickness	A_2	inch 0,89	0,91	0,93
Leekage distance	Total	inch 8,46	9,25	10,0
Leekage distance	Protect at 45^{O}	inch 5,91	6,89	7,68
Leekage distance	Protect at 90^{O}	inch 3,35	4,13	4,92

SHED CHARACHERISTICS (I-5)



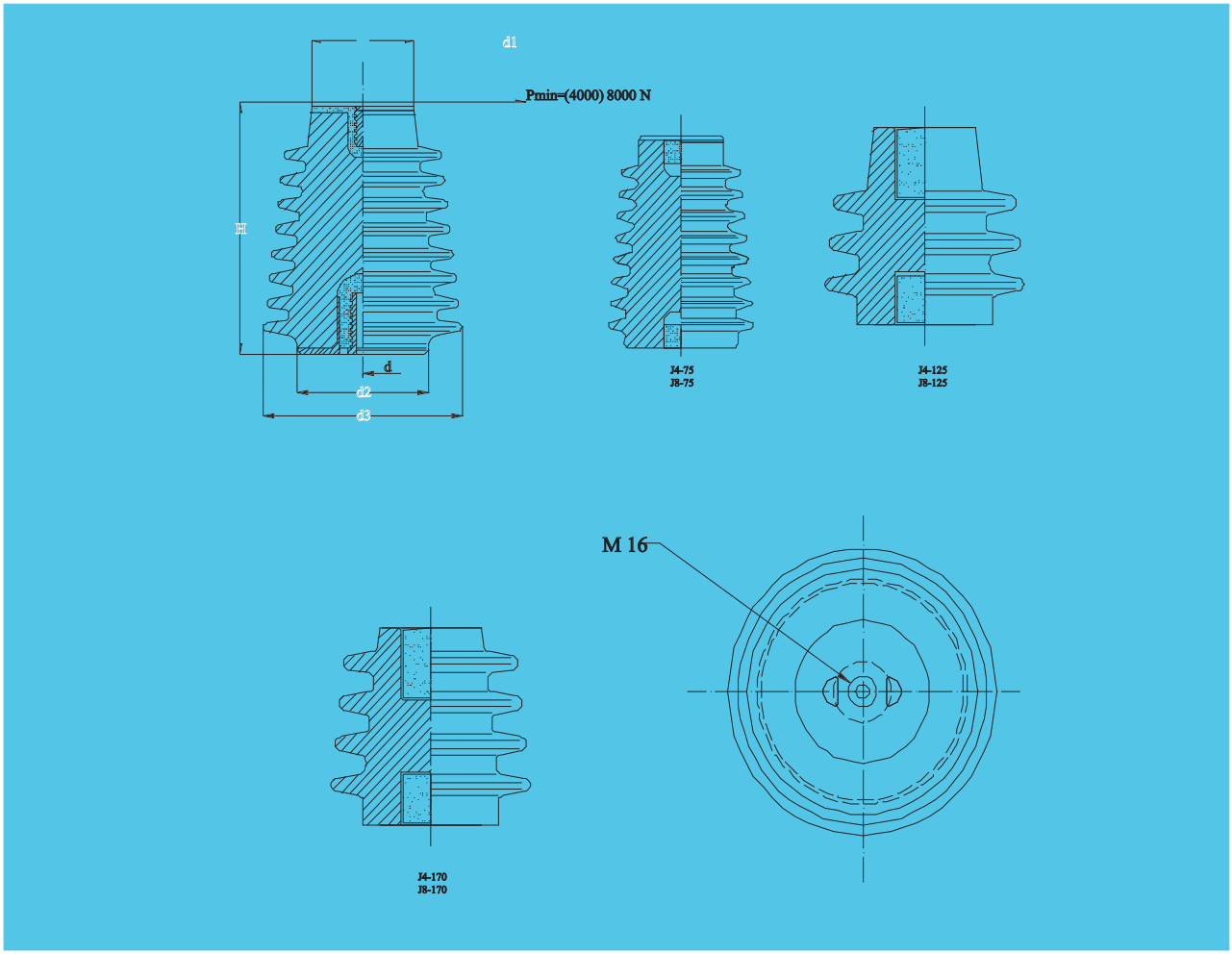
Data	Symbol	Unit	Measurements in inches				
Shed projection	L	inch	1,77	2,17	2,17	2,56	2,56
Interval	P_{min}	inch	1,69	1,97	1,97	2,28	2,28
Radius	R_1	inch	0,20	0,20	0,20	0,24	0,24
	R_2	inch	0,32	0,32	0,32	0,39	0,39
	R_3	inch	0,32	0,32	0,32	0,47	0,47
	R_4	inch	0,59	0,71	0,71	0,79	0,79
	R_5	inch	0,59	0,71	0,71	0,79	0,79
	R_6	inch	0,20	0,20	0,20	0,32	0,32
	R_7	inch	0,20	0,24	0,24	0,32	0,32
	R_8	inch	0,15	0,16	0,16	0,16	0,16
Shed height	h_1	inch	0,24	0,24	0,24	0,32	0,32
Shed height	h_2	inch	0,08	0,12	0,12	0,20	0,20
Projection	L_1	inch	1,02	1,18	1,18	1,50	1,50
Tilt	α/t	inch	5°/>0,71	8°/>0,71	12°/<0,71	8°/>0,87	12°/<0,87
Thickness	A	inch	0,83	0,91	0,83	1,02	0,95
Leakage distance	Total	inch	5,39	6,73	6,89	8,15	8,31
Leakage distance	Protected at 90°	inch	2,52	3,31	3,46	4,09	4,25

SHED CHARACTERISTICS (I-6)



Data	Symbol	Unit	Measurements in inches				
Shed projection	L	inch	1,77	2,17	2,17	2,58	2,56
Interval	P_{min}	inch	1,69	2,13	2,13	2,44	2,44
Radius	R_1	inch	0,20	0,20	0,24	0,28	0,28
	R_2	inch	0,32	0,32	0,32	0,32	0,32
	R_3	inch	0,32	0,39	0,39	0,47	0,47
	R_4	inch	0,59	0,71	0,71	0,79	0,79
	R_5	inch	0,59	0,79	0,79	0,87	0,87
Shed height	h_1	inch	0,24	0,32	0,32	0,32	0,32
Shed height	h_2	inch	0,08	0,16	0,16	0,16	0,16
Tilt	α/t	inch	5°/>0,71	5°/>0,78	10°/>0,87	5°/>0,98	10°/<0,98
Thickness	A	inch	0,83	1,02	0,95	1,22	1,10
Leakage distance	Total	inch	4,96	6,22	6,23	7,09	7,17
Leakage distance	Protected at 90°	inch	2,09	2,52	2,64	2,95	3,03

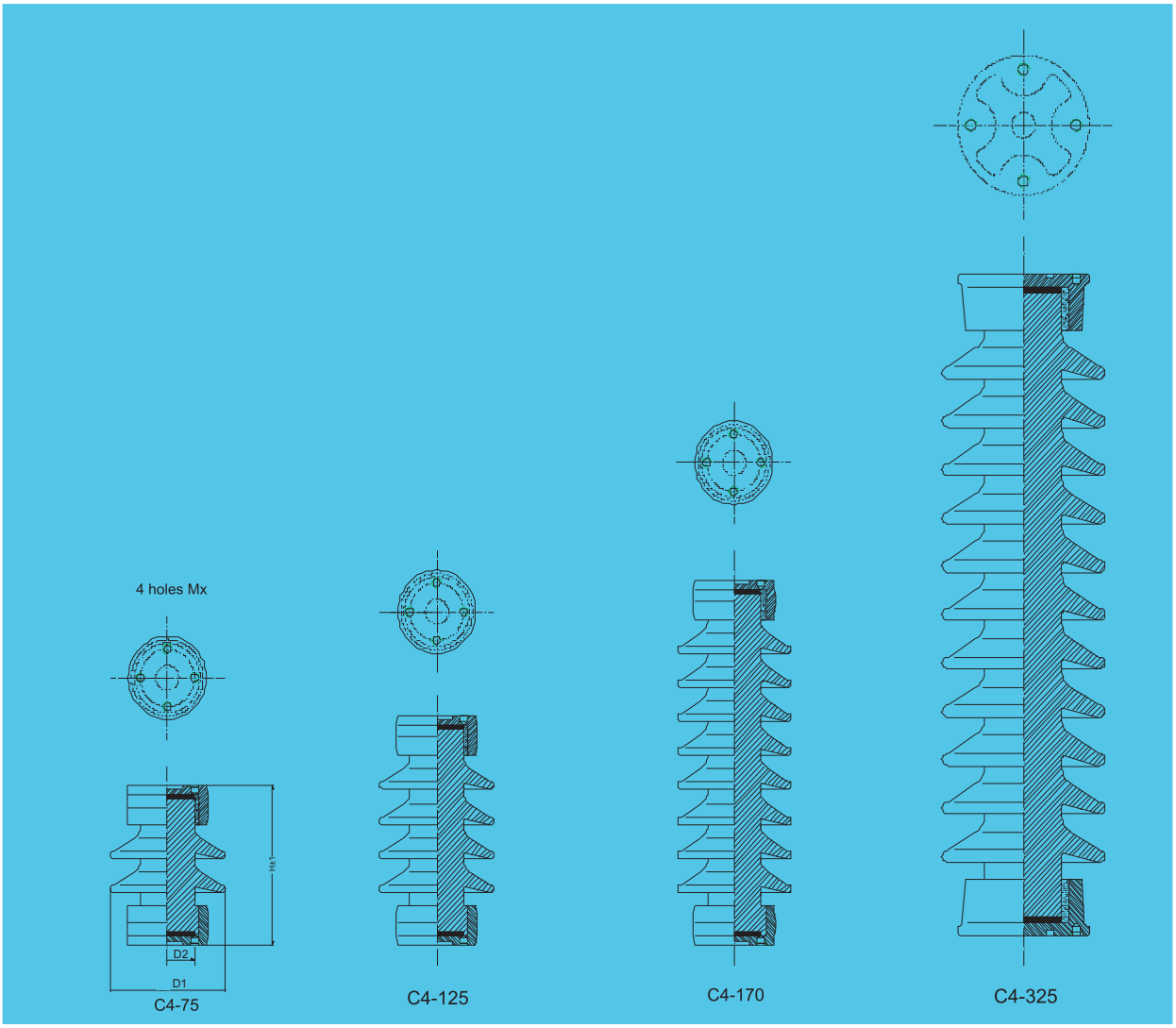
INDOOR POST INSULATOR (II-4)
rated voltage 12 kV; 24 kV; 36 kV
TYPE J4 and J8



Type	Measurements in mm					
	$H^{\pm 1}$	d	d_1	d_2	d_3	d_4
J4 – 75	136	M16	60	70	108	M12
J4 – 125	220	M16	60	80	130	M12
J4 - 170	333	M20	70	100	150	M16

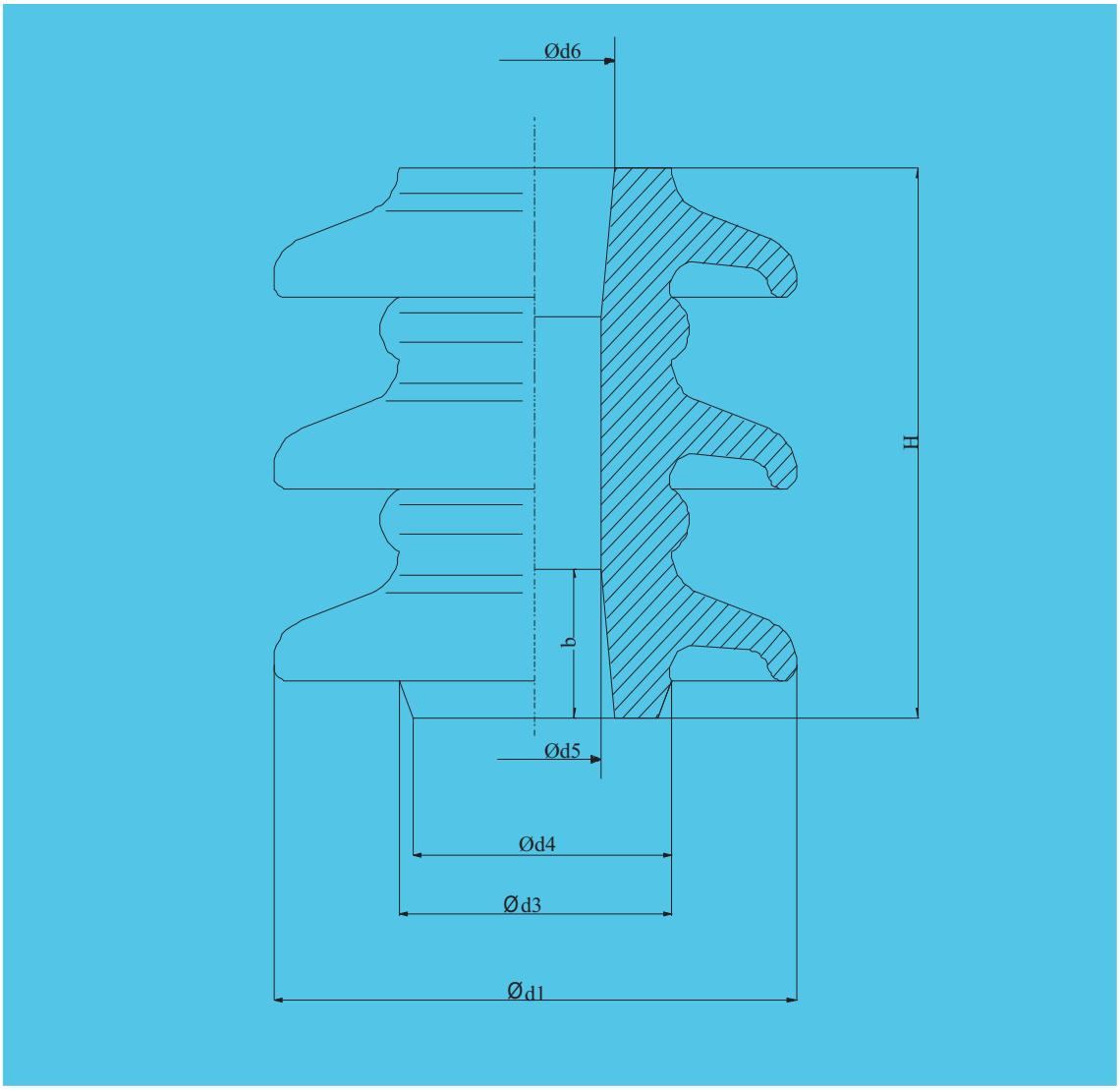
Type	Measurements in mm				
	$H^{\pm 1}$	d	d_1	d_2	d_3
J8 – 75	136	M20	75	95	145
J8 – 125	220	M24	75	115	165
J8 – 170	280	M24	75	115	115

OUTDOOR CYLINDRICAL POST INSULATORS (II-6)
rated voltage 12 kV; 24 kV; 36 kV; 72.5 kV
TYPE C4



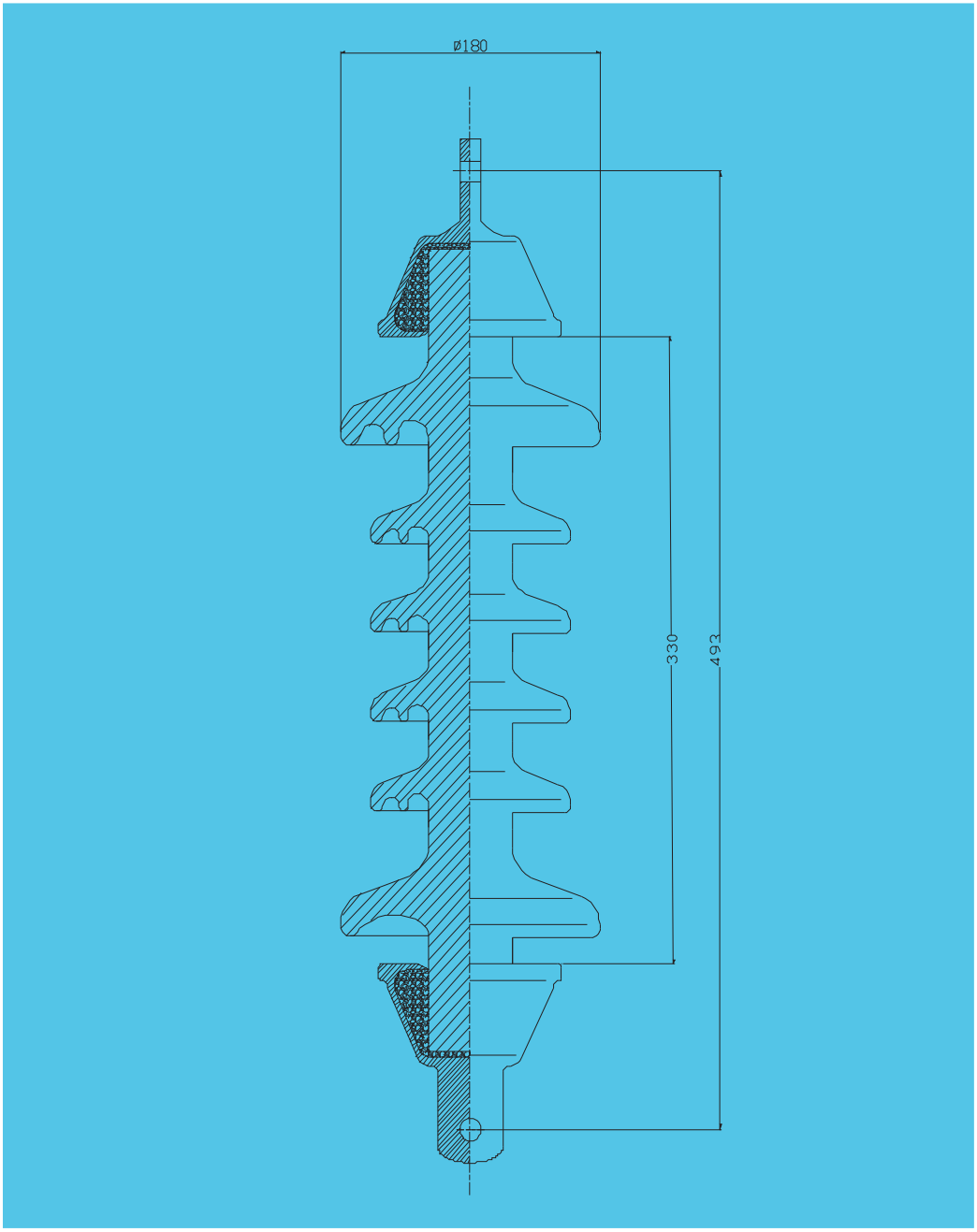
TYPE IEC 273	Rated voltage (kV)	Measurements in mm				Creepage distance (min)
		H±1	D_1 max	D_2	x	
C4- 75	12	215	180	76	12	190
C4-125	24	305	195	76	12	380
C4-170	36	445	205	76	12	580
C4-325	72.5	770	225	127	16	1160

SHACKLE INSULATORS (III-3)
TYPE Z (S)



TYPE	Measurements in mm						
DIN	H	b	d_1	d_3	d_4	d_5	d_6
S 80 S 115	80 115	19 25	80 115	50 72	45 65	22 32	26 38

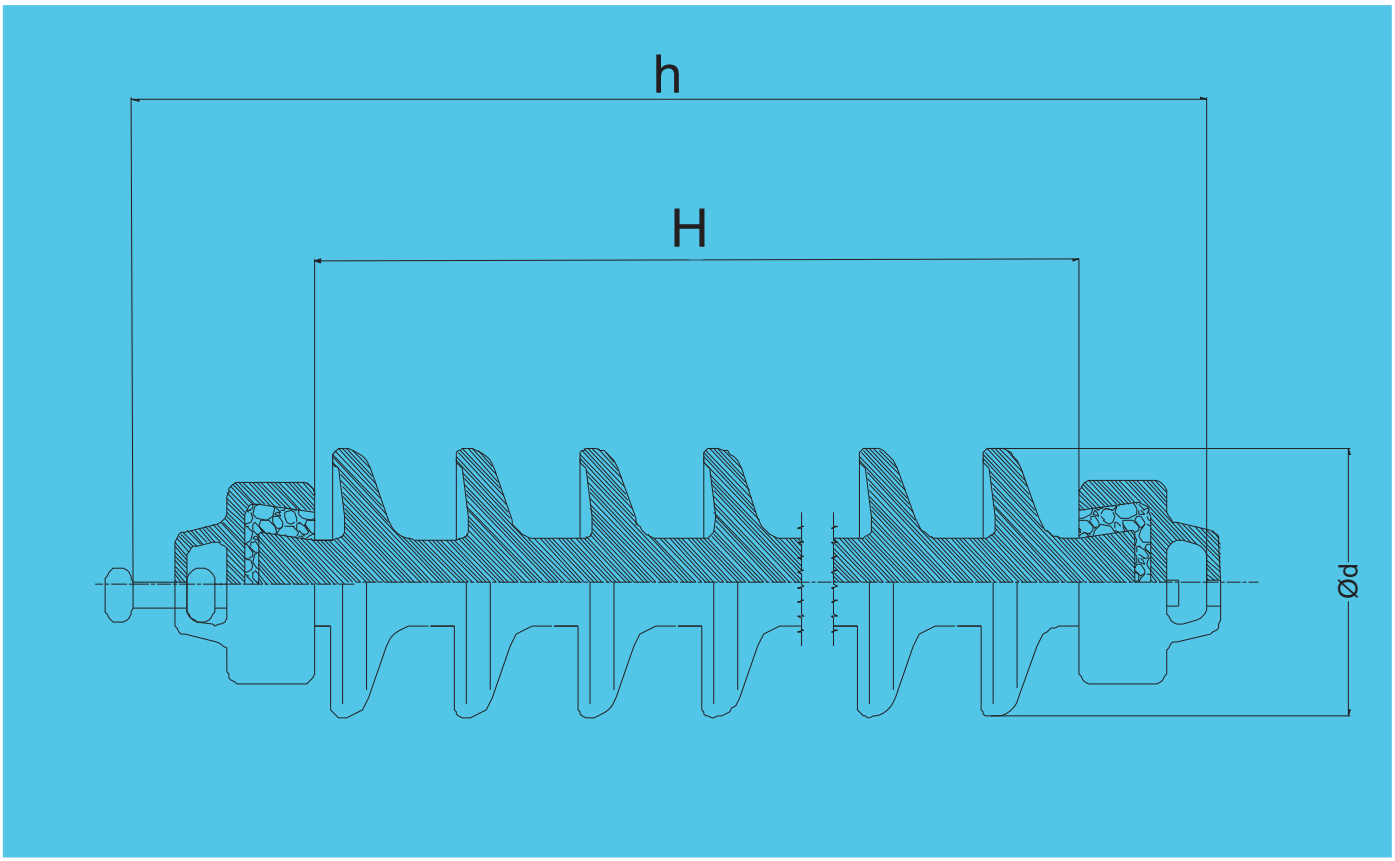
LONG ROD INSULATOR FOR OVERHEAD LINES (III-4)
TYPE L 50-330



Mechanical failing load min. 50 kN

Creepage distance min. 760 mm

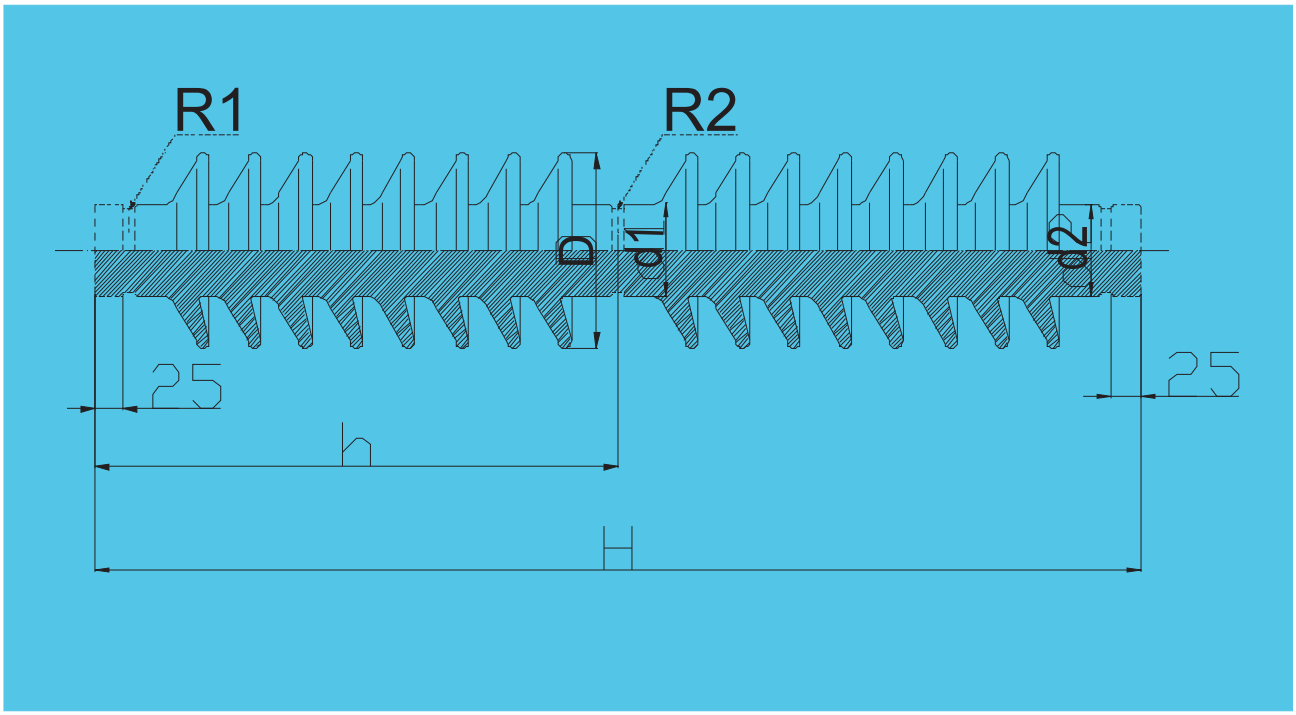
LONG ROD INSULATOR FOR OVERHEAD LINES (III-5)
TYPE L 40-250; L 40-400



No.	Creep. dist. (mm)	Measurements (mm)			Mechanical failing load min. (kN)
		h	d	H	
1.	550	370	170	250	40
2.	880	520	170	400	40

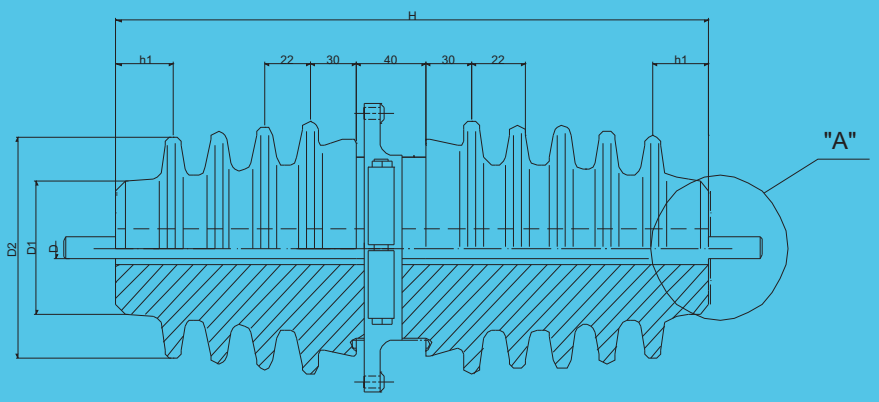
OUTDOOR INSULATORS FOR HIGH VOLTAGE BREAKER FUSES

III-6



TYPE	Rated voltage (kV)	Measurements in mm						
		H	D	h	d_1	d_2	R_1	R_2
FOA 12	12	360	115	179,5	80	65	5	6,5
FOA 17,5	17,5	431	115	215	80	65	5	6,5
FOA 24	24	522	115	257	80	65	5	6,5
FOA 36	36	640	115	315,5	80	65	5	5

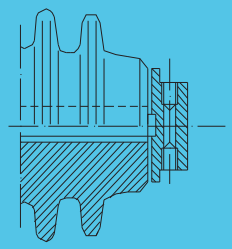
INDOOR BUSHINGS
maximum operating voltage 12 kV, 24 kV and 38 kV,rated current 400 A up to 2500 A
TYPE NB
IV-1



N1 number of ribs

N2 number of ribs

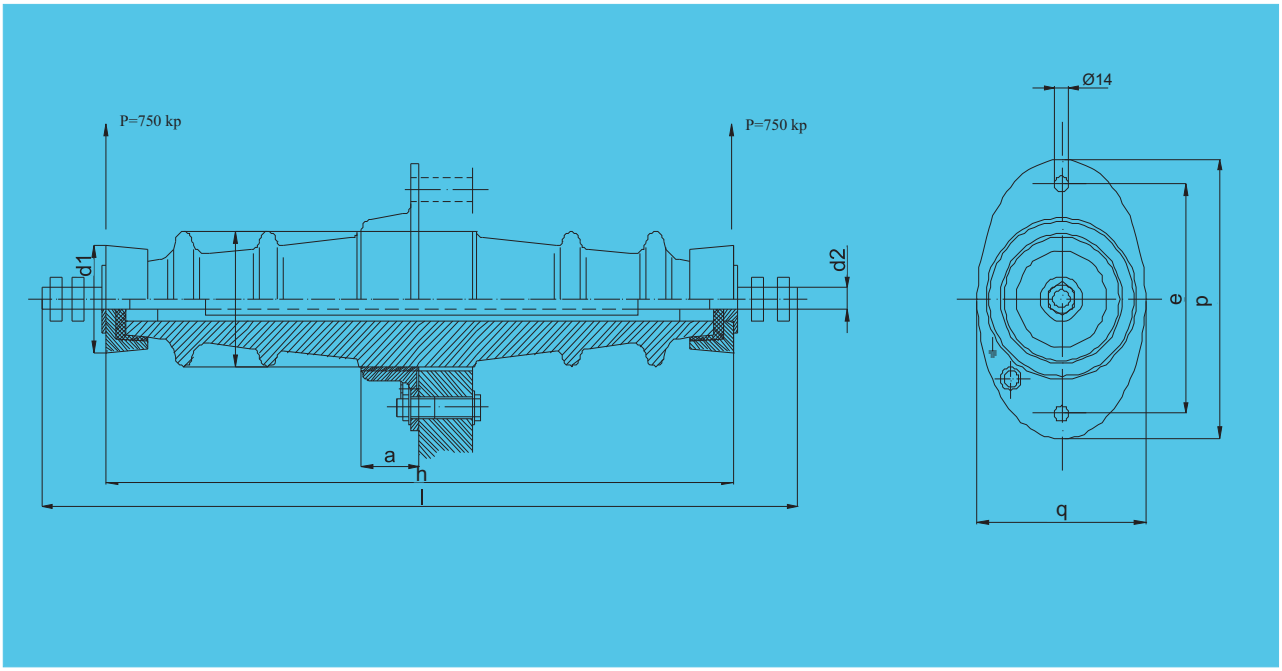
Detalj "A"



Such shape as well as other are possible

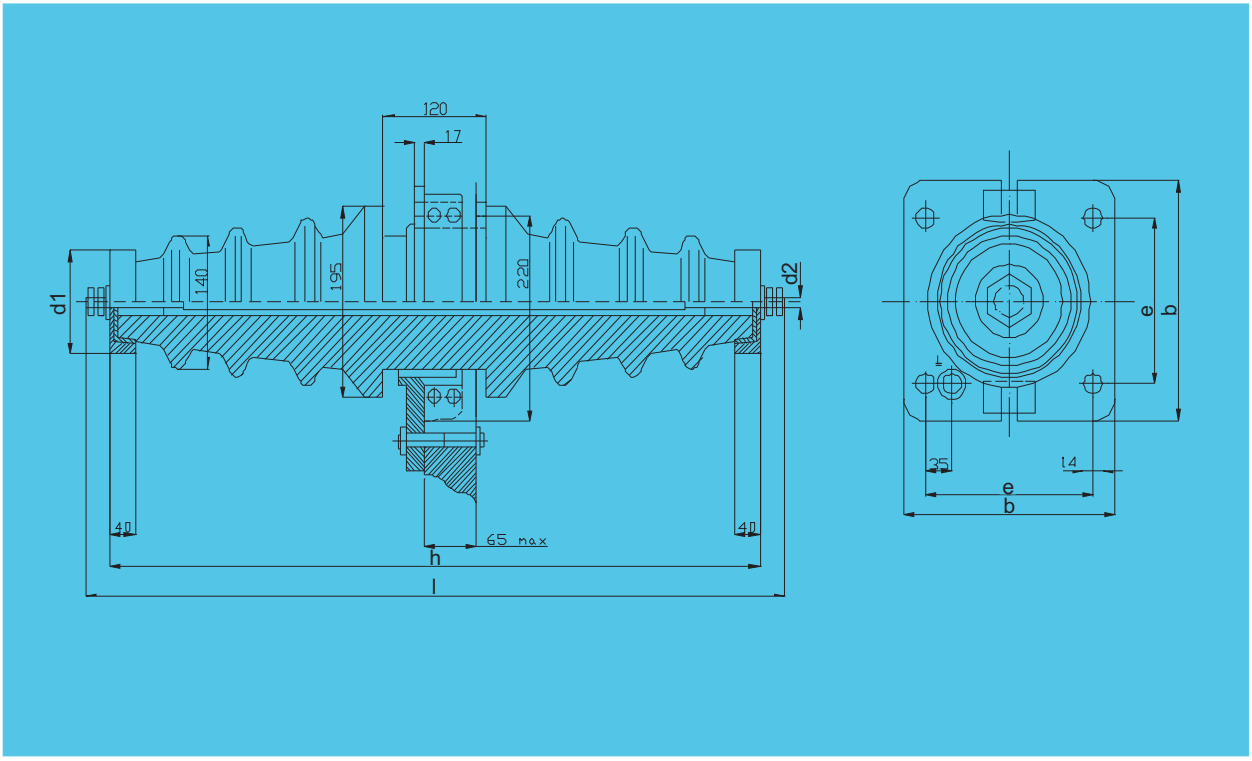
Measu-rements (mm)	NB 12 kV					NB 24 kV				NB 38 kV				
	400 A	630 A	1250 A	2000 A	2500 A	400 A	630 A	1250 A	2000 A	400 A	630 A	1250 A	2000 A	2500 A
H	329	329	329	329	329	538	538	538	538	729	729	729	729	729
D	21	30	37	50	55	21	30	37	50	21	30	37	50	55
D_1	70	70	70	70	80	80	80	80	80	90	90	90	90	145
D_2	100	100	100	100	110	110	110	110	110	120	120	120	120	175
h_1	35	35	35	35	35	29	29	29	29	35	35	35	35	35
N_1	3	3	3	3	3	8	8	8	8	12	12	12	12	12
N_2	4	4	4	4	4	9	9	9	9	13	13	13	13	13

INDOOR BUSHINGS
rated voltage 10 kV and 20 kV, rated current 400 A and 600 A
TYPE DB 10 i DB 20
IV-2



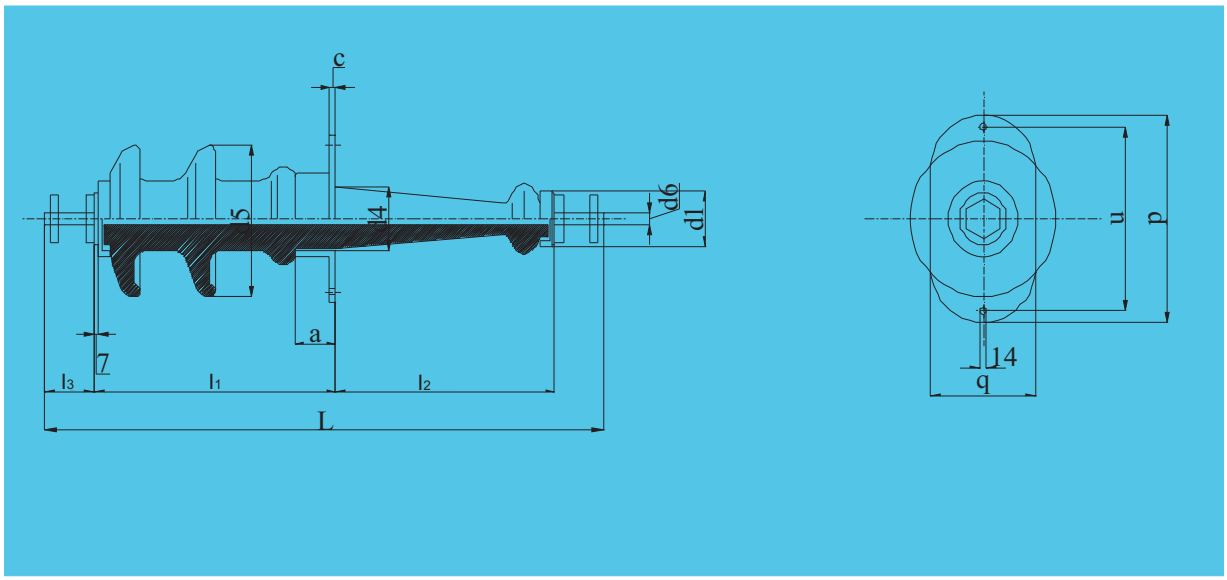
TYPE	Measurements in mm								
DIN	l	h	d	d_1	d_2	a	p	q	e
DB 10/400	565	471	105	80	M16	48	215	140	175
DB 10/630	585	471	105	80	M20	48	215	140	175
DB 20/400	700	606	120	95	M16	55	250	160	205
DB 20/630	720	606	120	95	M20	55	250	160	205

INDOOR BUSHINGS
rated voltage 30 kV, rated current 400 A, 630 A and 1000 A
TYPE DB 30
IV-3



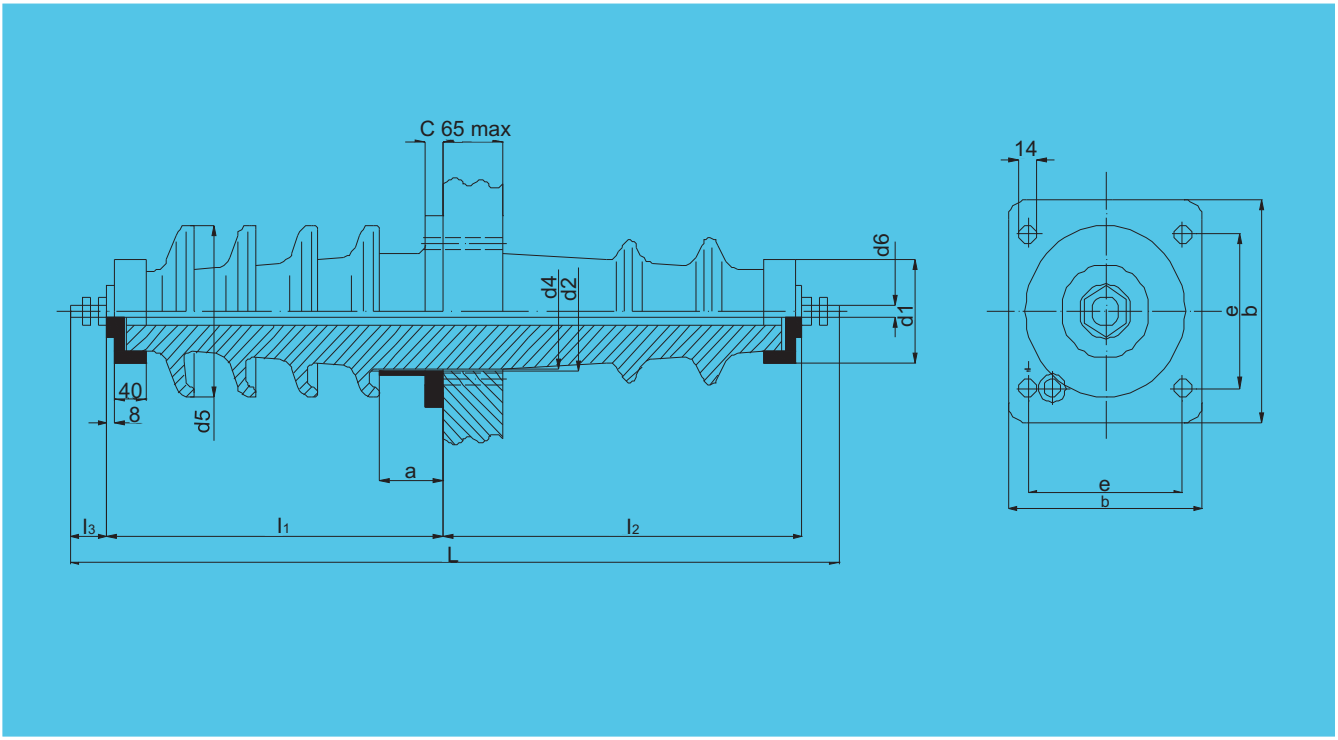
TYPE	Rated voltages	Rated curent	Measurements in mm					
DIN	(kV)	(A)	l	h	d_1	d_2	b	e
DB 30/400	30	400	870	760	100	M16	240	190
DB 30/630	30	630	890	760	100	M20	240	190
DB 30/1000	30	1000	920	760	100	M30x2	240	190

OUTDOOR-INDOOR BUSHINGS
rated voltage 10 kV, rated current 400 A and 630 A
TYPE DBF 10
IV-4



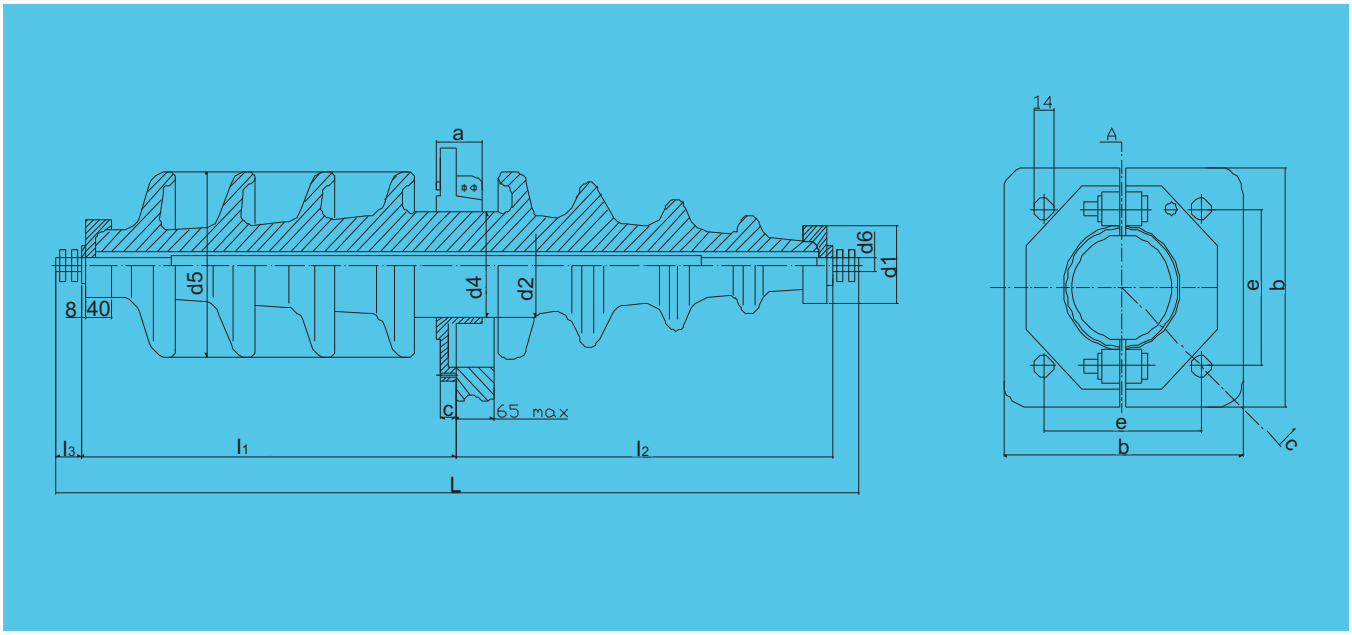
Type	Rated current (A)	Measurements in mm												
		a	c	d_1	d_4	d_5	d_6	p	q	u	l_1	l_2	l_3	L
DBF 10	400	45	12	72	95	150	M16	196	130	162	233	193	47	520
	630	45	12	72	95	150	M20	196	130	162	233	193	57	540

OUTDOOR-INDOOR WALL BUSHINGS
rated voltage 20 kV, rated current 400 A and 630 A
TYPE DBF 20
IV-5



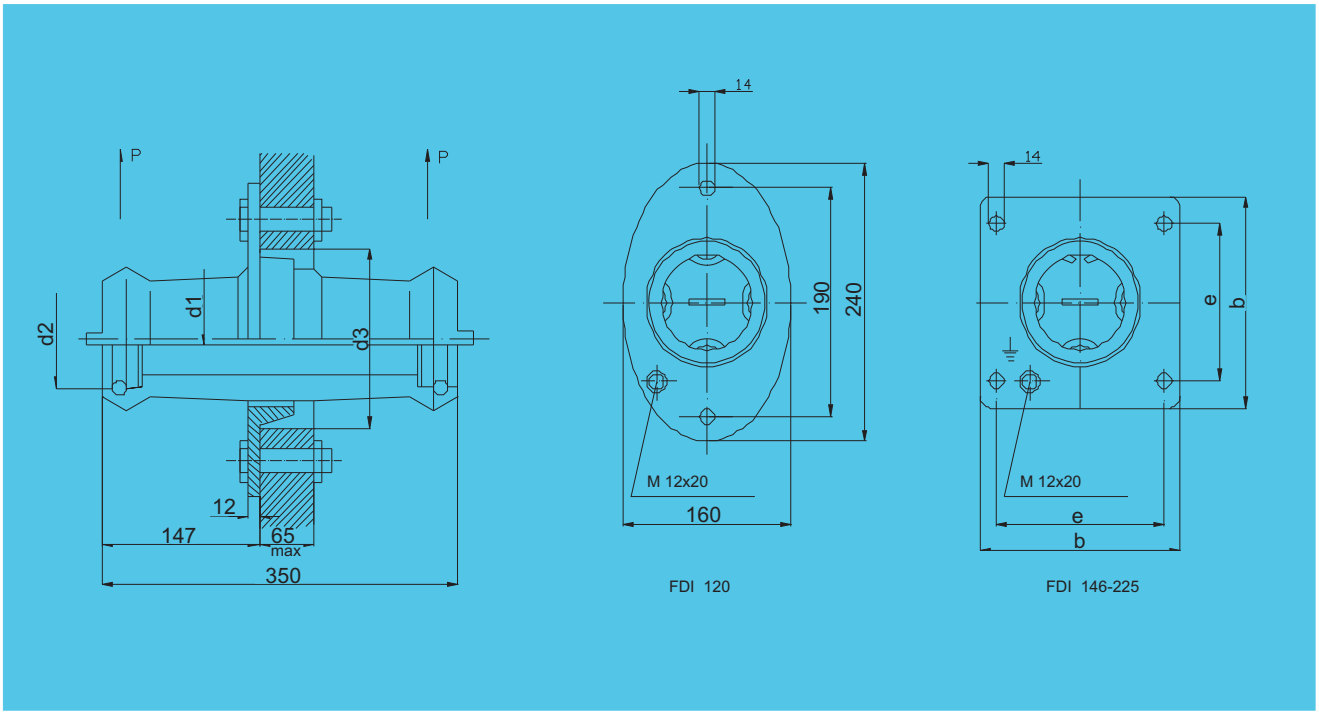
Type	Rated current (A)	Measurements in mm												
		a	b	c	e	d_1	d_2	d_4	d_5	d_6	l_1	l_2	l_3	L
DBF 20	400 630	50 50	210 210	12 12	160 160	95 95	130 130	120 120	180 180	M16 M20	322 322	352 352	53 63	780 800

OUTDOOR-INDOOR WALL BUSHINGS
rated voltage 30 kV,rated current 400 A and 630 A
TYPE DBF 30
IV-6



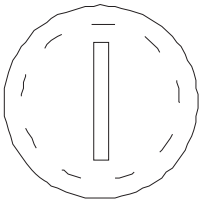
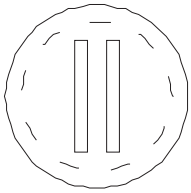
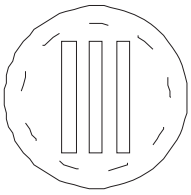
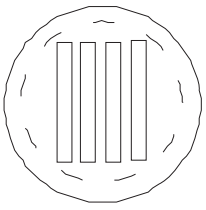
Type	Rated current (A)	Measurements in mm												
		a	b	c	e	d_1	d_2	d_4	d_5	d_6	l_1	l_2	l_3	L
DBF 30	400	65	240	12	190	100	145	135	195	M16	430	408	56	942
	630	65	240	12	190	100	145	135	195	M20	430	408	66	962

INDOOR BUSBAR BUSHINGS
rated voltage 10 kV
TYPE DI
IV-7

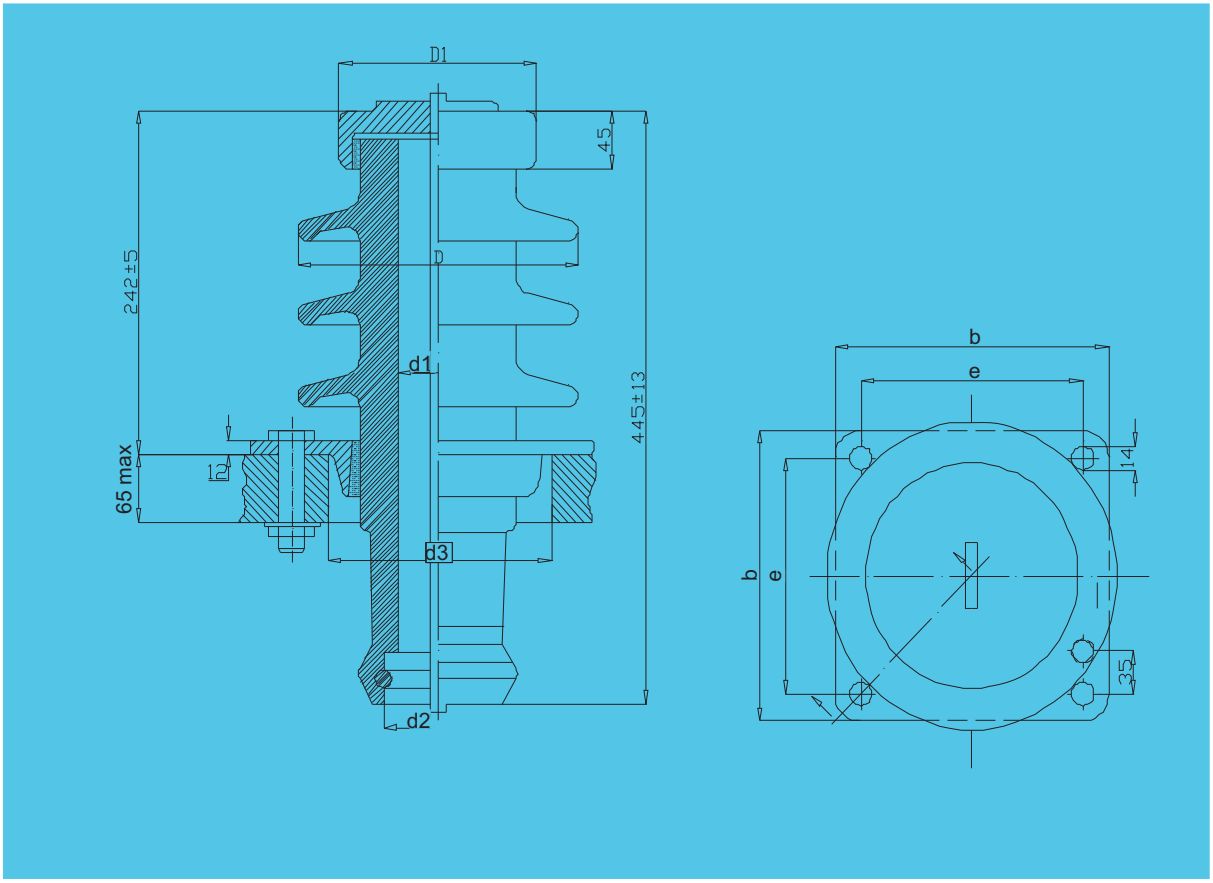


Type DIN	Measurements in mm					P_{min} kp	Flange
	d_1	d_2	d_3	b	e		
DI 10/55	55	70	150			750	FDI 120
DI 10/75	75	93	175	200	160	1000	FDI 146
DI 10/95	95	115	195	220	180	1000	FDI 166
DI 10/115	115	135	215	240	200	1000	FDI 183
DI 10/145	145	168	255	275	230	1000	FDI 225

TABLE FOR DI INSULATOR'S CONDUCTORS IV-10

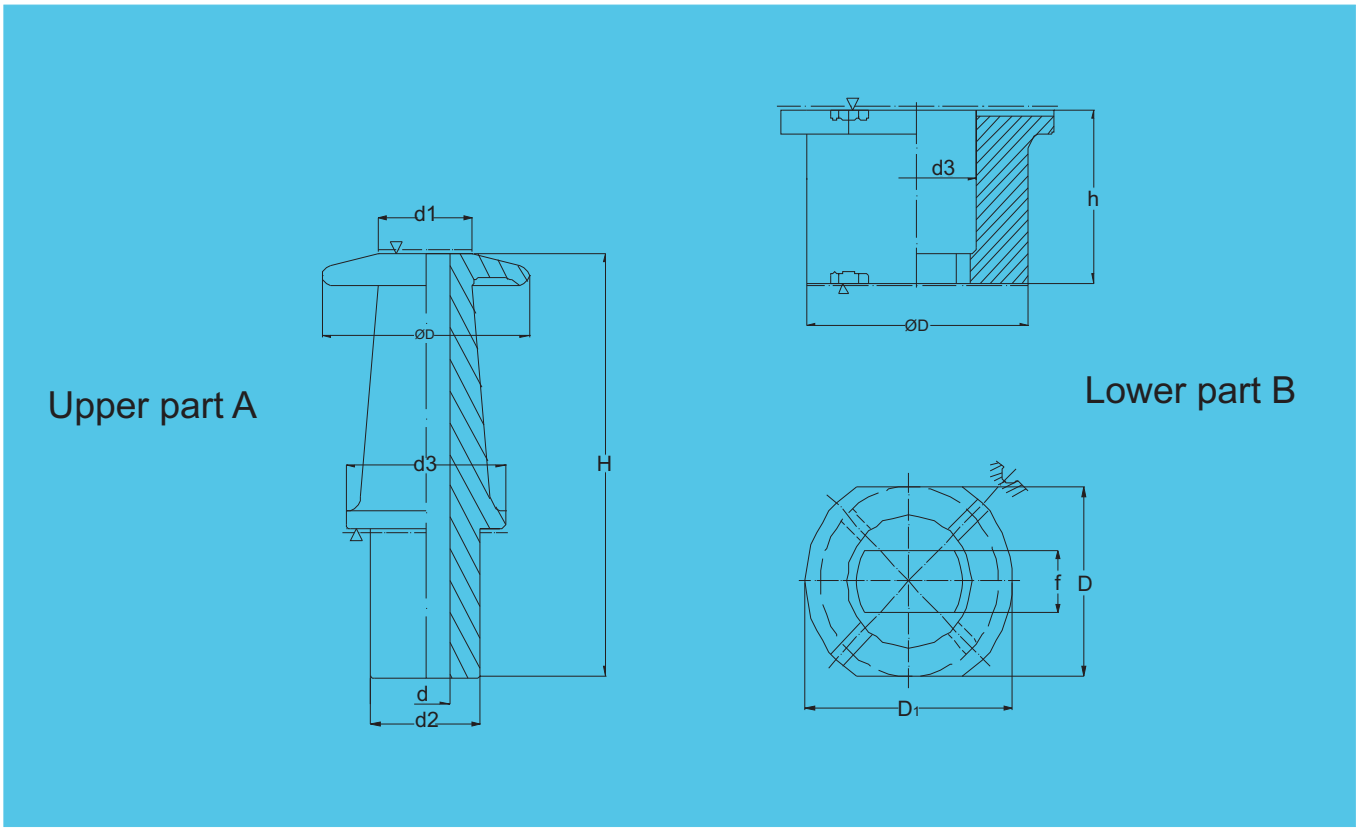
Protective cover with busbars	Insulator				
	DI 10/55 DI 20/55	DI 10/75 DI 20/75	DI 10/95 DI 20/95	DI 10/115 DI 20/115	DI 10/145 DI 20/145
	Dimension of busbar				
	1 X 30/ 5 1 X 40/ 3 1 X 40/ 5 1 X 40/10	1 X 50/ 5 1 X 50/10 1 X 60/ 5 1 X 60/10	1 X 80/ 5 1 X 80/10	1 X 100/ 5 1 X 100/10	1 X 120/10
	2 X 30/ 5 2 X 40/ 3 2 X 40/ 5	2 X 40/10 2 X 50/ 5 2 X 50/10 2 X 60/ 5 2 X 60/10	2 X 60/ 5 2 X 60/10 2 X 80/ 5 2 X 80/10	2 X 100/ 5 2 X 100/10	2 X120/10
		3 X 40/10 3 X 50/5	3 X 50/10 3 X 60/ 5 3 X 60/10 3 X 80/ 5	3 X 80/ 5 3 X 80/10 3 X 100/ 5	3 X 100/ 10 3 X 120/ 10
			4 X 50/ 5 4 X 50/10	4 X 60/10 4 X 80/ 5 4 X 80/10	4 X 100/ 5 4 X 100/10

INDOOR-OUTDOOR BUSBAR BUSHINGS
rated voltage 10 kV
TYPE DFI
IV-9



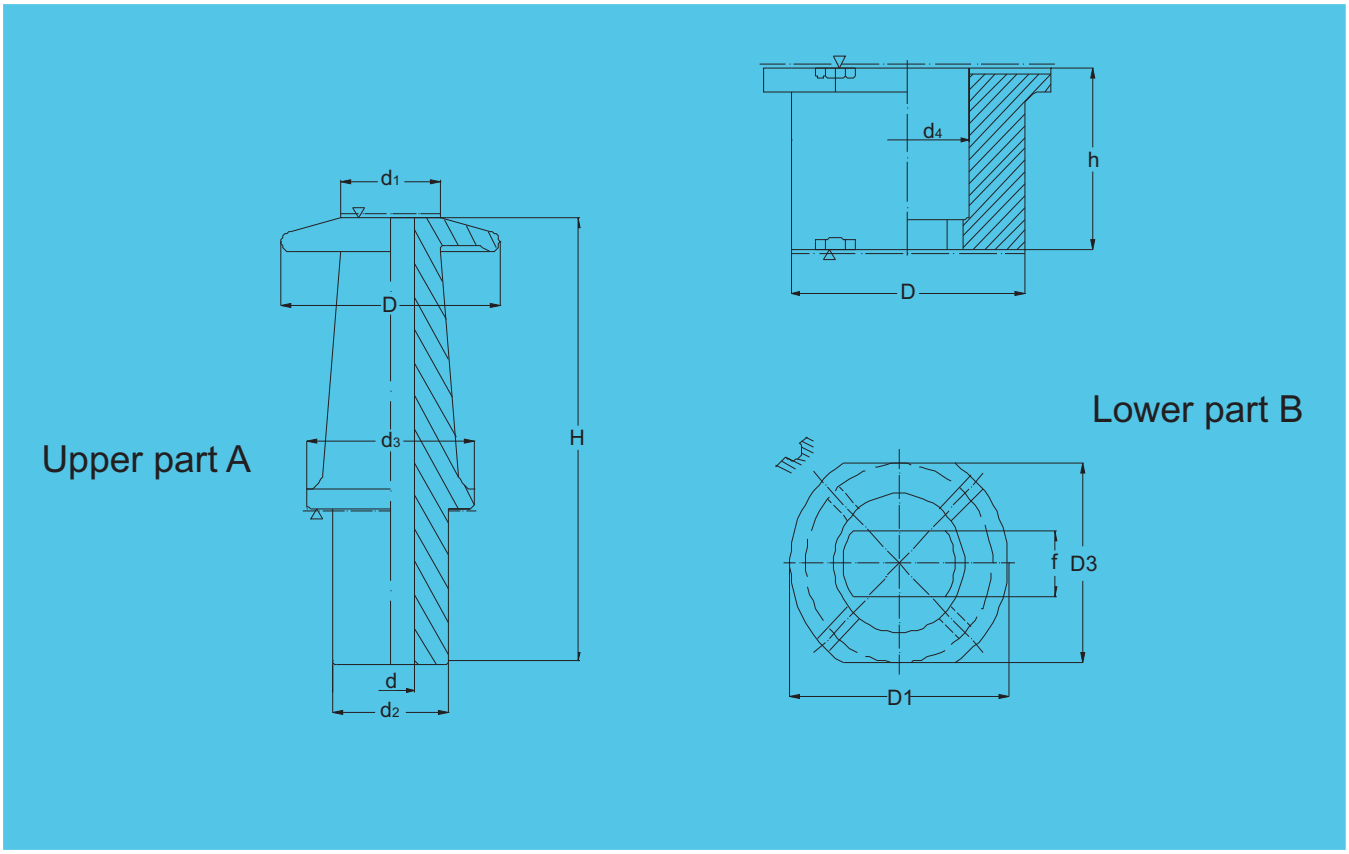
Type	Measurements in mm						
	d_1	d_2	d_3	D	D_1	b	e
DFI 10 / 75	75	93	175	215	153	200	160
DFI 10 / 95	95	115	195	235	173	220	180
DFI 10 / 115	115	135	215	255	194	240	200
DFI 10 /145	145	168	255	290	234	275	230

INDOOR AND OUTDOOR TRANSFORMER BUSHINGS
1N 100 A up to 3150 A
TYPE DT 1
V-1



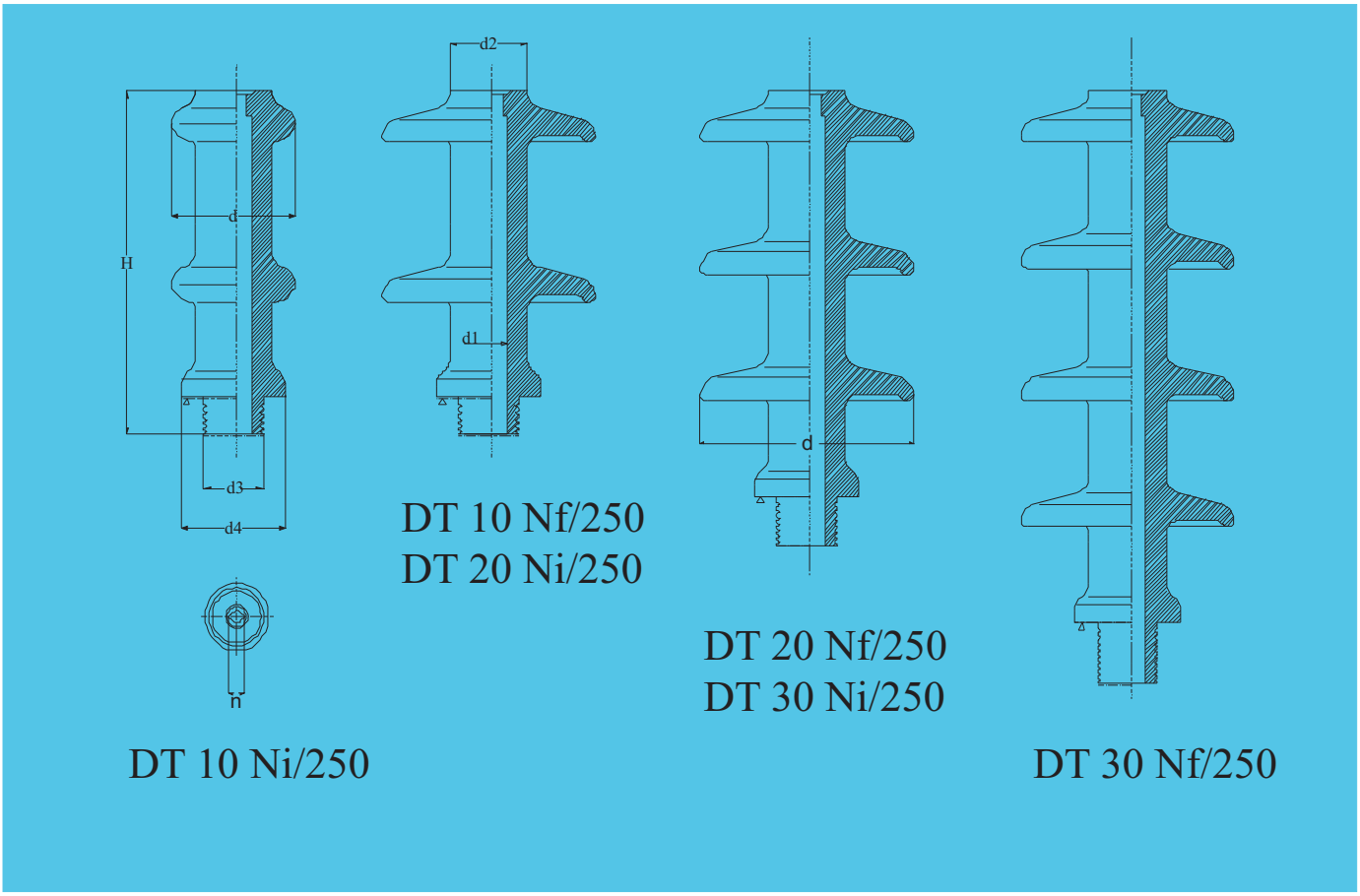
Type		Measurements in mm								
DIN		H	D	D_1	d	d_1	d_2	d_3	h	f
Upper part A	Lower part B									
DT 1/100-A		60	40		11	29	17			
	DT 1/100-B		40	50				20	25	
DT 1/250-A		70	50		14	32	27			
	DT 1/250-B		50	60				30	30	20
DT 1/630-A		80	70		22	47	43			
	DT 1/630-B		70	85				46	30	28
DT 1/1000-A		85	90		32	65	53			
	DT 1/1000-B		90	110				57	35	37
DT 1/2000-A		85	104		44	80	66			
	DT 1/2000-B		104	125				70	35	51
DT 1/3150-A		85	125		50	100	86			
	DT 1/3150-B		125	150				90	35	61

INDOOR AND OUTDOOR TRANSFORMER BUSHINGS
TYPE DT 3
V-2



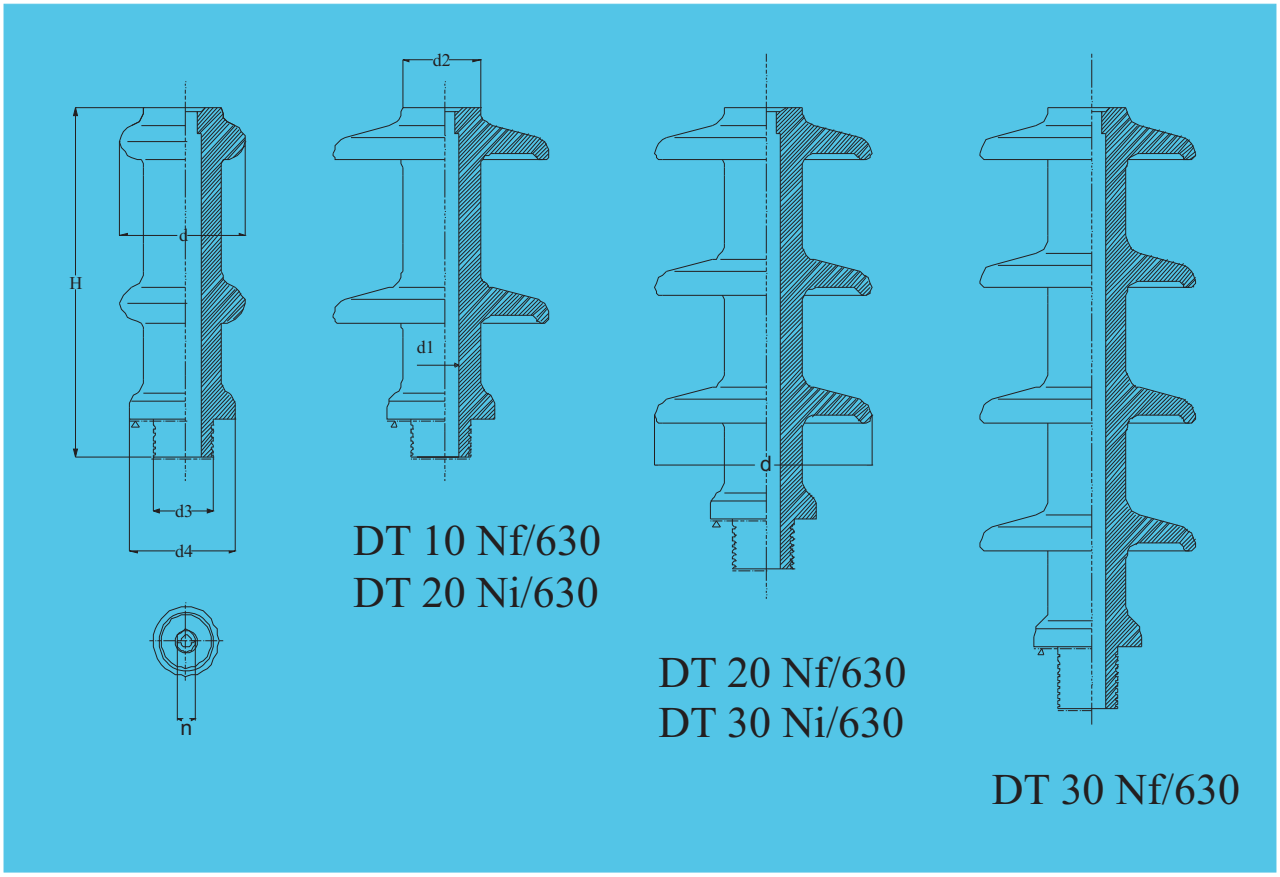
Type		Measurements in mm									
DIN		DIN	D	D_1	d	d_1	d_2	d_3	d_4	h	f
Upper part A	Upper part A										
DT 3/2500 A		135	75		14	32	37	60			
	DT 3/250 B			70					40	55	20
DT 3/630 A		135	90		22	47	43	70			
	DT 3/630 B			85					46	55	28
DT 3/1000 A		135	110		32	65	53	90			
	DT 3/1000 B			110					57	55	37
DT 3/2000 A		135	125		44	80	66	105			
	DT 3/2000 B			125					70	55	51
DT 3/3150 A		135	145		50	100	86	125			
	DT 3/3150 B			150					90	55	61

INDOOR AND OUTDOOR TRANSFORMER BUSHINGS
10N, 20N and 30N, 250A
TYPE DT 10N-30N / 250
V-3



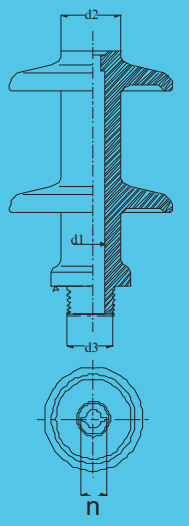
Type DIN	Rated voltage (kV)	Measurements in mm						
		H	d	d_1	d_2	d_3	d_4	n
DT 10 Ni / 250	10	245	100	33	42	74	111	22
DT 10Nf / 250	10	295	140	33	42	74	111	22
DT 20 Ni / 250	20							
DT 20 Nf / 250	20	385	155	33	42	74	111	22
DT 30 Ni /250	30							
DT 30 Nf / 250	30	485	155	33	42	74	111	22

INDOOR AND OUTDOOR TRANSFORMER BUSHINGS
10N, 20N and 30N, 630 A
TYPE DT 10N-30N / 630
V-4

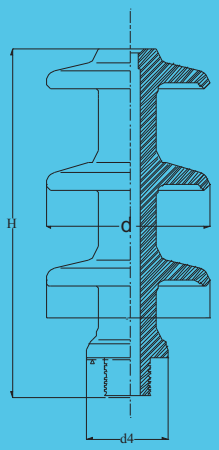


Type	Rated voltage (kV)	Measurements in mm						
DIN		H	d	d_1	d_2	d_3	d_4	n
DT 10 Ni 630	10	245	110	39	50	88	128	30,5
DT 10 Nf 630	10	295	150	39	50	88	128	30,5
DT 20 Ni 630	20							
DT 20 Nf 630	20	385	163	39	50	88	128	30,5
DT 30 Ni 630	30							
DT 30 Nf 630	30	510	180	39	50	88	128	30,5

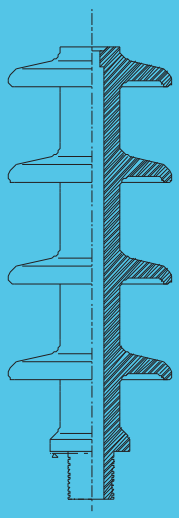
INDOOR AND OUTDOOR TRANSFORMER BUSHINGS
10N, 20N and 30N, 1000 A up to 3150 A
TYPE DT 10N-30N / 1000-3150
V-5



DT 10 Nf 1000, 2000, 3150
DT 20 Ni 1000, 2000, 3150



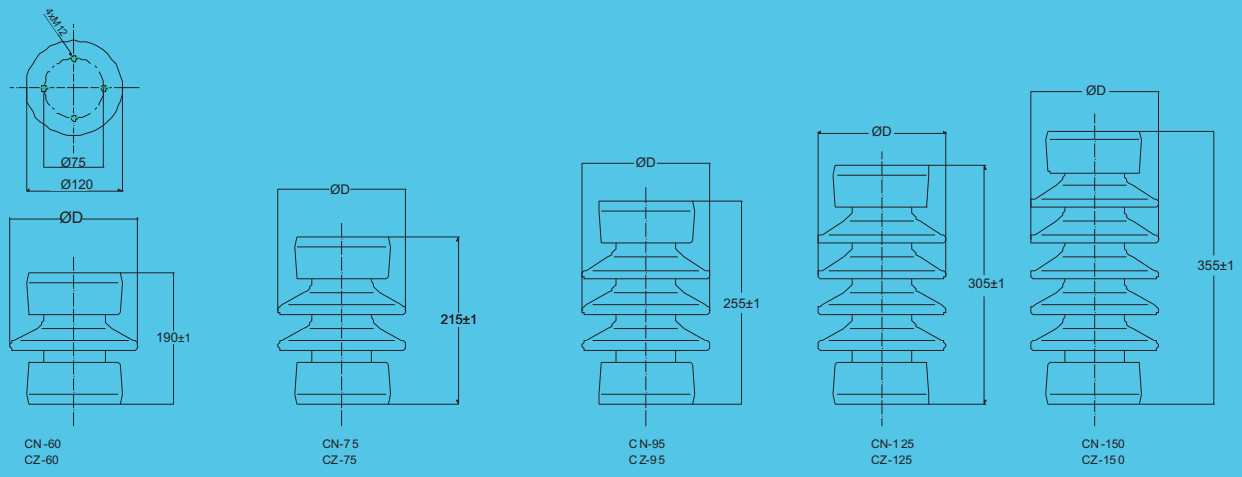
DT 20 Nf 1000, 2000, 3000
DT 30 Ni 1000, 2000, 3150



DT 30 Nf 1000, 2000, 3150

Type	Rated voltage (kV)	Measurements in mm						
DIN		H	d	d_1	d_2	d_3	d_4	n
DT 10 Nf 1000	10	325	170	58	80	108	163	46
DT 10 Nf 3150	10	325	190	74	100	131	183	62
DT 20 Nf 1000	20	410	185	58	80	108	163	46
DT 20 Nf 3150	20	410	210	74	100	131	183	62
DT 30 Nf 1000	30	540	200	58	80	108	163	46
DT 30 Nf 3150	30	540	230	74	100	131	183	62

OUTDOOR TYPE SUPPORT INSULATOR
for impulse whitstand voltage 60 kV - 150 kV
9828 13 0414



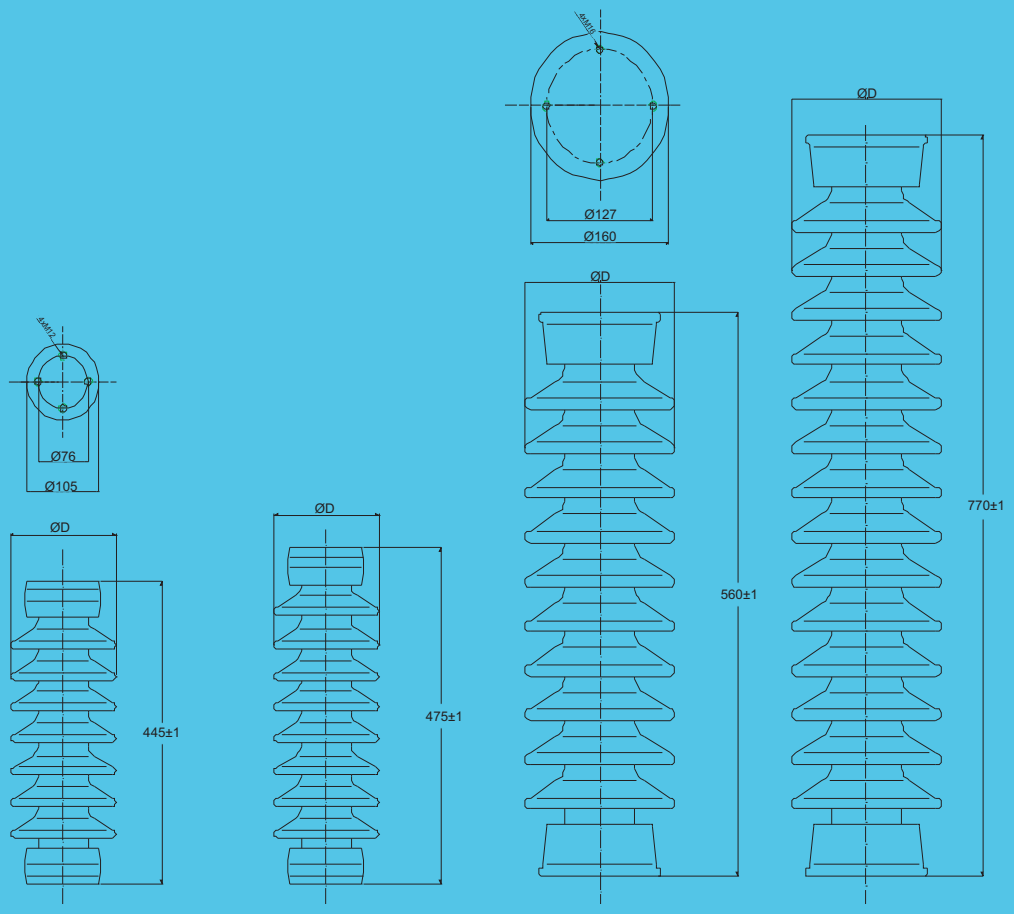
MOUNTING DIMENSIONS TOP AND BOTTOM ALL TYPES C 60 AND C 150 (N and Z)
MATERIAL: GRAY IRON DIN 1692 or 1691
PROTECTED : HOT DIP GALVANIZED
STANDARDS FOR CONSTRUCTION IEC 273
CN - NORMAL TYPE
CZ - POLLUTION TYPE

CN - NORMAL TYPE
STANDARD GLAZE COLORS ARE
BROWN AND LIGHT GRAY

CZ - PROFILE POLLUTION
STANDARD GLAZE COLORS ARE
BROWN AND LIGHT GRAY

Type	Withstand Voltages		Minimun failing loads		Minimum creepage	No. of Sheds	Shed diametre
	Lighting impulse 1,2/50 (kV)	One min 50 Hz Wet (kV)	Cantilever strength (N)	Torsion strength (Nm)	Minimum (mm)		D (mm)
C 4N-60	60	20	4000	600	120	1	175
C 4Z-60	60	20	4000	600	190	2	185
C 10N-60	60	20	10000	1000	120	1	175
C 10Z-60	60	20	10000	1000	190	2	185
C 4N-75	75	28	4000	600	190	2	180
C 4Z-75	75	28	4000	600	280	2	190
C 10N-75	75	28	10000	1000	190	2	180
C 10Z-75	75	28	10000	1000	280	2	190
C 4N-95	95	38	4000	800	280	3	190
C 4Z-95	95	38	4000	800	380	3	210
C 12N-95	95	38	12000	1800	280	3	190
C 12Z-95	95	38	12000	1800	380	3	210
C 4N-125	125	50	4000	800	380	4	195
C 4Z-125	125	50	4000	800	500	4	230
C 10N-125	125	50	10000	1200	380	4	195
C 10Z-125	125	50	10000	1200	500	4	230
C 4N-150	150	50	4000	1000	450	4	195
C 4N-150	150	50	4000	1000	660	5	235
C 8N-150	150	50	8000	1500	450	4	195
C 8N-150	150	50	8000	1500	660	5	235

OUTDOOR TYPE SUPPORT INSULATOR
for impulse whitstand voltages 170 kV - 325 kV
9828 13 0514



CN-170	CN-200	CN-250	CN-325
CZ-170	CZ-200	CZ-250	CZ-325

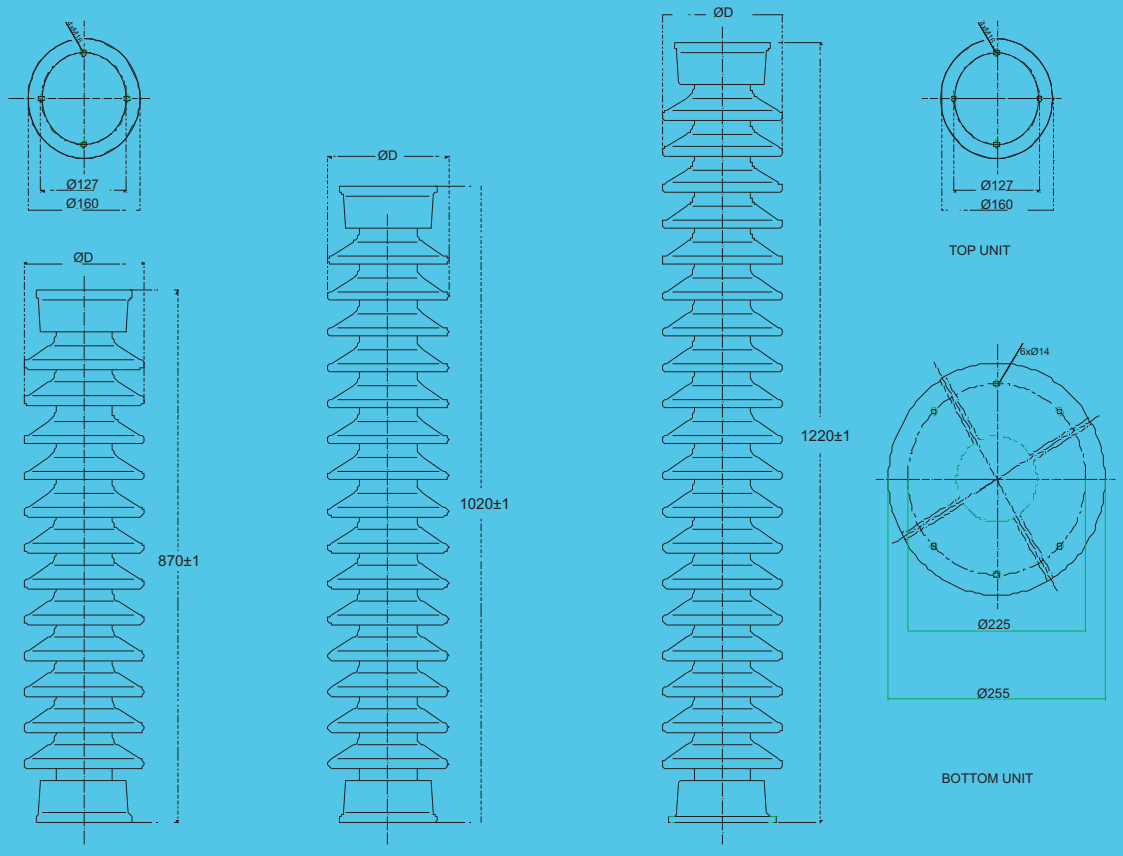
MOUNTING DIMENSIONS TOP AND BOTTOM ALL TYPES C 170 AND C 325 (N and Z)
MATERIAL: GRAY IRON DIN 1692 or 1691
PROTECTED : HOT DIP GALVANIZED
STANDARDS FOR CONSTRUCTION IEC 273
CN - NORMAL TYPE
CZ - POLLUTION TYPE

CN - NORMAL TYPE
STANDARD GLAZE COLORS ARE
BROWN AND LIGHT GRAY

CZ - PROFILE POLLUTION
STANDARD GLAZE COLORS ARE
BROWN AND LIGHT GRAY

Type	Withstand Voltages		Minimun failing loads		Minimum creepage	No. of Sheds	Shed diameter
	Lighting impulse 1,2/50 (kV)	One min 50 Hz Wet (kV)	Cantilever strength (N)	Torsion strength (Nm)	Minimum (mm)		D (mm)
C 4N-170	170	70	4000	1200	580	6	205
C 4Z-170	170	70	4000	1200	850	7	205
C 8N-170	170	70	8000	2000	580	6	205
C 8Z-170	170	70	8000	2000	850	7	205
C 4N-200	200	70	4000	1200	680	7	210
C 4Z-200	200	70	4000	1200	950	8	210
C 8N-200	200	70	8000	2000	680	7	210
C 8Z-200	200	70	8000	2000	950	8	210
C 4N-250	250	95	4000	1800	835	8	215
C 4Z-250	250	95	4000	1800	1300	10	215
C 8N-250	250	95	8000	2500	835	8	215
C 8Z-250	250	95	8000	2500	1300	10	215
C 4N-325	325	140	4000	1200	1160	11	225
C 4Z-325	325	140	4000	1200	2000	18	260
C 8N-325	325	140	8000	3000	1160	11	225
C 8Z-325	325	140	8000	3000	2000	18	260

OUTDOOR TYPE SUPPORT INSULATOR
for impulse whitstand voltages 380 kV - 550 kV
9828 13 0614



CN-380
CZ-380

CN-450
CZ-450

CN-550
CZ-550

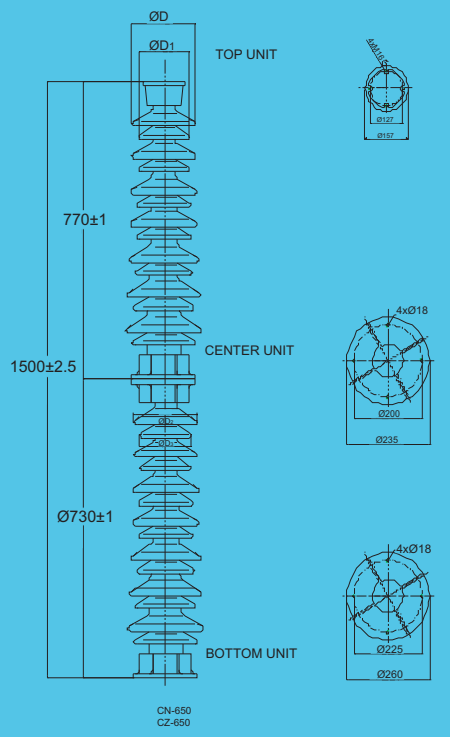
MOUNTING DIMENSIONS TOP AND BOTTOM ALL TYPES C 380 AND C 550 (N and Z)
MATERIAL: GRAY IRON DIN 1692 or 1691
PROTECTED : HOT DIP GALVANIZED
STANDARDS FOR CONSTRUCTION IEC 273
CN - NORMAL TYPE
CZ - POLLUTION TYPE

CN - NORMAL TYPE
STANDARD GLAZE COLORS ARE
BROWN AND LIGHT GRAY

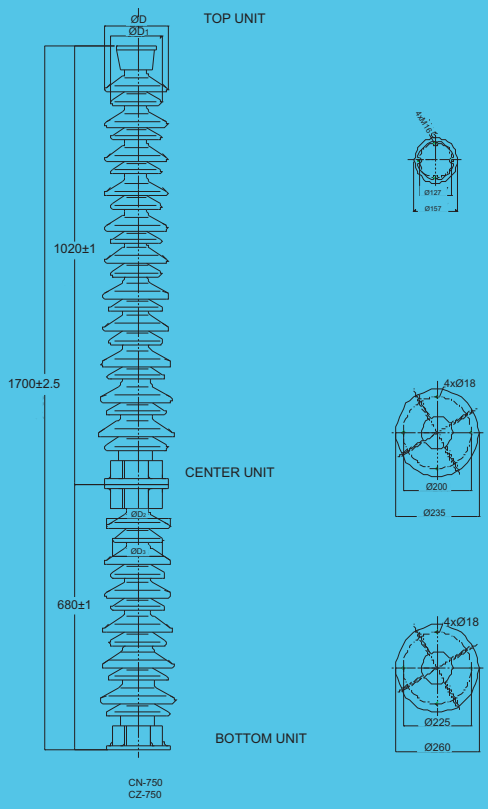
CZ - PROFILE POLLUTION
STANDARD GLAZE COLORS ARE
BROWN AND LIGHT GRAY

Technical data							
Type	Withstand Voltages		Minimum failing loads		Minimum creepage	No. of sheds	Shed diameter
	Lighting impulse 1,2/50 (kV)	One min 50 Hz wet (kV)	Centilever strength (N)	Torsion strength (Nm)	(mm)		D (mm)
C 4N-380	380	150	4000	2000	1500	12	210
C 4Z-380	380	150	4000	2000	2300	18	215
C 6N-380	380	150	6000	3000	1500	12	210
C 6Z-380	380	150	6000	3000	2300	18	215
C 4N-450	450	185	4000	2500	1600	15	235
C 4Z-450	450	185	4000	2500	2300	21	235
C 6N-450	450	185	6000	3500	1600	15	235
C 6Z-450	450	185	6000	3500	2300	21	235
C 4N-550	550	230	4000	3000	1970	17	300
C 4Z-550	550	230	4000	3000	2900	25	300
C 6N-550	550	230	6000	4000	1970	17	300
C 6Z-550	550	230	6000	4000	2900	25	300

OUTDOOR TYPE SUPPORT INSULATOR
for impulse whitstand voltages 650 kV - 750 kV
9828 13 0714



CN-650
CZ-650



CN-750
CZ-750

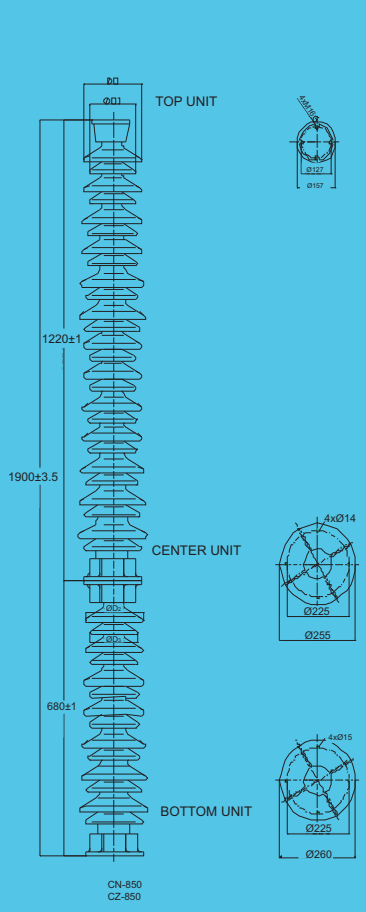
MOUNTING DIMENSIONS TOP AND BOTTOM ALL TYPES C 650 AND C 750 (N and Z)
MATERIAL: GRAY IRON DIN 1692 or 1691
PROTECTED : HOT DIP GALVANIZED
STANDARDS FOR CONSTRUCTION IEC 273
CN - NORMAL TYPE
CZ - POLLUTION TYPE

CN - NORMAL TYPE
STANDARD GLAZE COLORS ARE
BROWN AND LIGHT GRAY

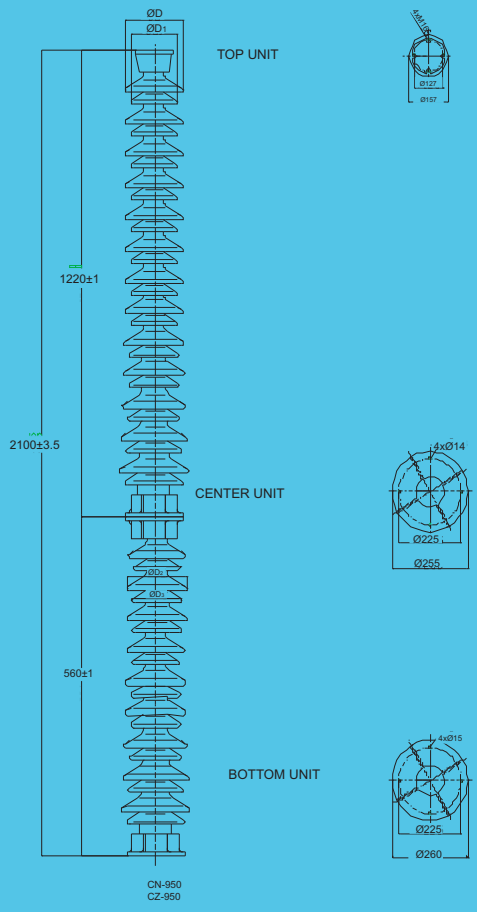
CZ - PROFILE POLLUTION
STANDARD GLAZE COLORS ARE
BROWN AND LIGHT GRAY

Technical data										
Type	Withstand Voltages		Minimum failing loads		Minimum creepage	No. of sheds	Shed diameter			
	Lighting impulse 1,2/50 (kV)	One min 50 Hz wet (kV)	Centilever strength (N)	Torsion strength (Nm)	(mm)		D	D_1	D_2	D_3
							(mm)			
C 4N-650	650	275	4000	3000	2300	20	200		220	
C 4Z-650	650	275	4000	3000	3350	29	220	190	230	200
C 6N-650	650	275	6000	3000	2300	20	200		220	
C 6Z-650	650	275	6000	3000	3350	29	220	190	230	200
C 4N-750	750	325	4000	3000	2700	24	200		220	
C 4Z-750	750	325	4000	3000	3900	33	220	190	230	200
C 6N-750	750	325	6000	4000	2700	24	200		220	
C 6Z-750	750	325	6000	4000	3900	33	220	190	230	200

OUTDOOR TYPE SUPPORT INSULATOR
for impulse whitstand voltages 850 kV - 950 kV
9828 13 0814



CN-850
CZ-850



CN-950
CZ-950

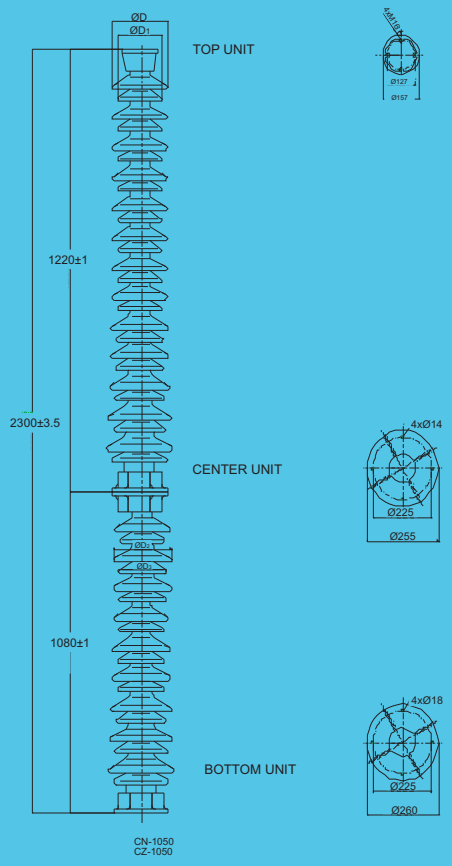
MOUNTING DIMENSIONS TOP AND BOTTOM ALL TYPES C 850 AND C 950 (N and Z)
MATERIAL: GRAY IRON DIN 1692 or 1691
PROTECTED : HOT DIP GALVANIZED
STANDARDS FOR CONSTRUCTION IEC 273
CN - NORMAL TYPE
CZ - POLLUTION TYPE

CN - NORMAL TYPE
STANDARD GLAZE COLORS ARE
BROWN AND LIGHT GRAY

CZ - PROFILE POLLUTION
STANDARD GLAZE COLORS ARE
BROWN AND LIGHT GRAY

Type	Withstand Voltages		Minimun failing load			Minimun creepage	No. of Sheds	Shed diametre (mm)			
	Lighting impulse 1,2/50 (kV)	Switching impulse wet kV	One min 50 Hz Wet (kV)	Cantilever strength (N)	Torsion strength (Nm)	Minimum (mm)		D	D_1	D_2	D_3
C 4N-850	850		360	4000	3000	3100	26	210		200	
C 4Z-850	850		360	4000	3000	4400	38	230	200	230	200
C 6N-850	850		360	6000	3000	3100	26	210		200	
C 6Z-850	850		360	6000	3000	4400	38	230	200	230	200
C4N-950	950	750	395	4000	3000	3400	28	210		200	
C 4Z-950	950	750	395	4000	3000	4900	44	230	200	230	200
C 6N-950	950	750	395	6000	3000	3400	28	210		200	
C 6Z-950	950	750	395	6000	3000	4900	44	230	200	230	200

OUTDOOR TYPE SUPPORT INSULATOR
for impulse whitstand voltages 1050 kV
9828 13 0914



MOUNTING DIMENSIONS TOP AND BOTTOM ALL TYPES C 1050 (N and Z)
MATERIAL: GRAY IRON DIN 1692 or 1691
PROTECTED : HOT DIP GALVANIZED
STANDARDS FOR CONSTRUCTION IEC 273
CN - NORMAL TYPE
CZ - POLLUTION TYPE

CN - NORMAL TYPE
STANDARD GLAZE COLORS ARE
BROWN AND LIGHT GRAY

CZ - PROFILE POLLUTION
STANDARD GLAZE COLORS ARE
BROWN AND LIGHT GRAY

Technical data

Type	Withstand Voltages			Minimum failing load		Minimum creepage	No. of Sheds	Shed diameter(mm)
	Lighting impulse 1.2/50 (kV)	Switching impulse wet (kV)	One min 50 Hz Wet (kV)	Cantilever strength (N)	Torsion strength (Nm)	(mm)		D D_1 D_2 D_3
C 4N 1050	1050	850	460	4000	3000	4500	33	210 230
C 4Z 1050	1050	850	460	4000	3000	5650	50	225 195 225 195
C 6N 1050	1050	850	460	6000	3000	4500	33	210 230
C 6Z 1050	1050	850	460	6000	3000	5650	50	225 195 225 195

Bosnia and Herzegovina - Republic of Srpska, 71123 East Sarajevo, Vuka Karadžića 17

Switchboard: +387 (0) 57 342 180, General Manager:+387 (0) 57 342 549, 343 354, Commercial Director: +387 (0) 57 340 353, 342 326

Telefax: +387 (0) 57 340 357, 340 356, e-mail: office@e-raop.com, www.e-raop.com