



Limited Liability Company
GZHELSKY ELECTROIZOLYATOR



PRODUCT CATALOG

www.insulator.ru

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About Company

Gzhelsky Electroizolyator Limited Liability Company (GZE LTD), founded in 1818, specializes in the manufacture of low-voltage and high-voltage insulators and offers a wide range of products, from very small to large-sized insulators for voltages of 0.4 kV to 220 kV:

- Low-voltage insulators;
- Indoor and outdoor post insulators;
- Line suspension porcelain insulators;
- Rod porcelain insulators for railway overhead wiring;
- Bushing insulators;
- Pin-type post insulators;
- Covers;
- Bushings insulators for transformer bushings;

All products manufactured comply with applicable Russian and international standards and are available both on the Russian market and internationally.

The company continuously focuses on production upgrades with the introduction of innovative processes, equipment and materials.

All concepts behind our new technology and production methods for new insulators use the latest achievements and advanced engineering and process-related solutions in various fields of science and technology. This enables us to always offer high-quality products and exceed your highest expectations.

In the search for new technical ideas, we invited the leading Russian and foreign experts. The resulting solutions were implemented with the use of advanced equipment, specifically developed and acquired from the world's best companies.

Our latest developments include:

- S4-550 I, S4-550 II, S6-550 I, S6-550 II rod post insulators, properly developed, certified and manufactured on an industrial scale;
- S6-950 I, S6-950 II, S8-1050 II rod post insulators, developed, tested and ready to be released on an industrial scale;
- F 70/35-D-II, LF 70/35-D-IV, LF 70/110-D-II, LF 120/110-D-II, LF 120/150-D-IV, LF 120/220-D-IV suspension line rod insulators for voltages of 35, 110, 150 and 220 kV, duly manufactured and tested, with a batch of such insulators already in pilot operation;
- S-type insulators for voltages of 650, 1300 and 1800 kV (documentation developed, pilot batches being manufactured).

Our continuous efforts allowed us to develop products that combine the advantages of porcelain and polymer insulators. For our products, see this catalog, our website or contact us by phone: +7 (495) 995 23 45.



Outdoor Post Insulators

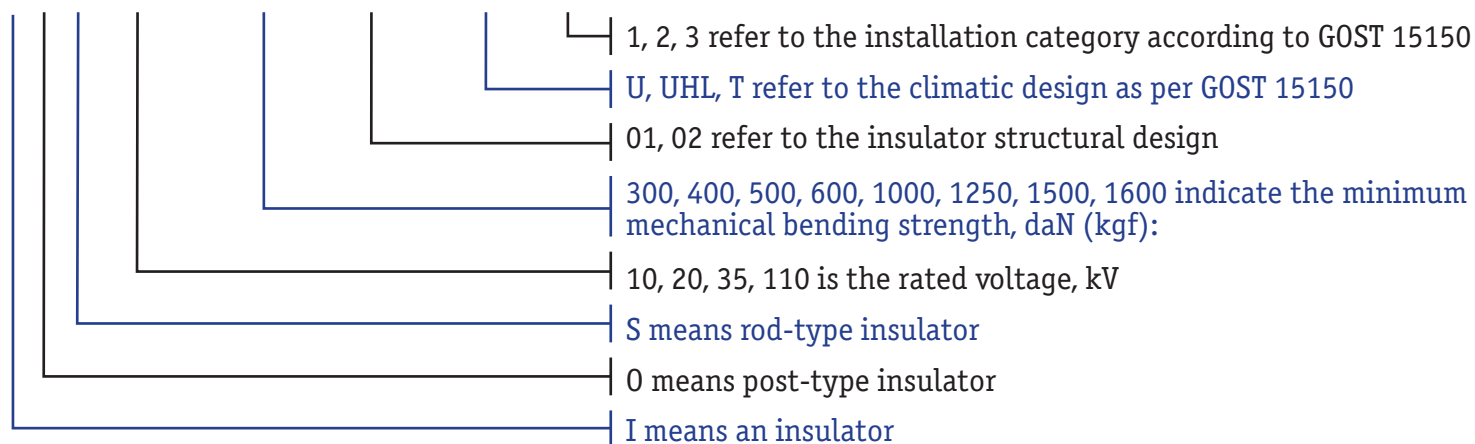
Insulator	Page	Insulator	Page	Insulator	Page
IOS-10-2000 UHL1	3	IOS-110-1250 M-01 UHL1	6	S4-450 I M UHL	9
IO-20-2000 UHL1	3	IOS-110-1250-01 M UHL1	6	S4-450 I M-01 UHL	9
IOS-35-500-01 UHL1	4	IOS-110-2000 M UHL1	6	S4-450 II M UHL	9
IOS-35-500-01 M UHL1	4	IOS-110-2000 M-01 UHL1	6	S4-450 II M-01 UHL	9
IOS-35-1000 UHL1	5	IOS-110-2000-01 M UHL1	6	S4-550 I M UHL	9
IOS-35-1000 M UHL1	5	IOS-110-2000 IM UHL1	6	S4-550 II M UHL	9
IOS-35-2000 M UHL1	5	IOS-110-2000-01 IM UHL1	6	S6-125 II UHL1	8
IOS-35-2000 M UHL1	5	S4-80 I T	7	S6-550 I M UHL	9
IOS-110-300 M UHL1	6	S4-80 I UHL	7	S6-550 I M-01 UHL	9
IOS-110-400 M UHL1	6	S4-80 II T	7	S6-550 II M UHL	9
IOS-110-400 M-01 UHL1	6	S4-80 II UHL	7	S6-550 II M-01 UHL	9
IOS-110-600 M UHL1	6	S4-195 I M UHL	8	S6-950 I-M UHL, T1	10
IOS-110-600 M-01 UHL1	6	S4-195 I M-01 UHL	8	S6-950 II-M UHL, T1	10
IOS-110-600-02 M UHL1	6	S4-195 II M UHL	8	S8-1050 II-M UHL, T1	10
IOS-110-1250 M UHL1	6	S4-195 II M-01 UHL	8		

Applications:

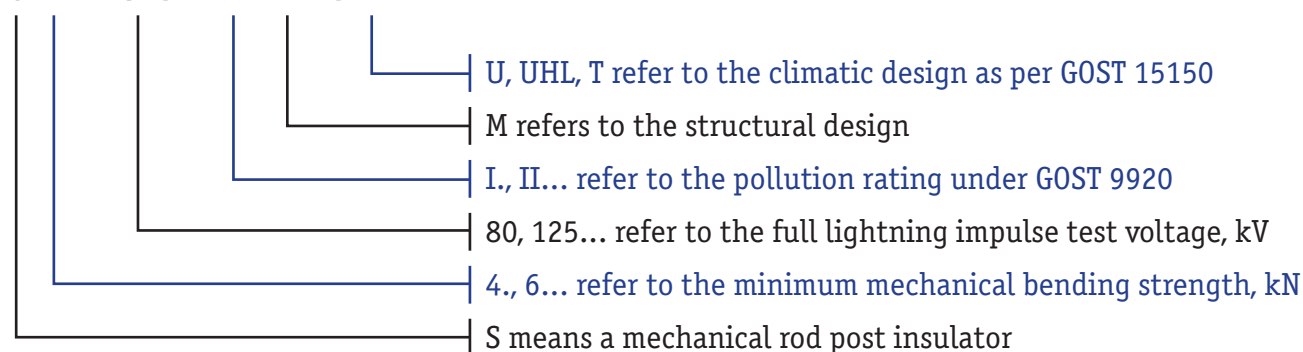
These insulators are designed for insulation and fastening of live parts in electrical equipment (circuit breakers) and open distribution devices, and AC wiring of 1000 V and up to 100 Hz, installed at elevations of 1000 m above the sea level.

Insulator Designation Legend:

IOS 35 1000 01 UHL 1



C4-195- I M UHL



IOS-10-2000 UHL1

IOS-20-2000 M UHL1

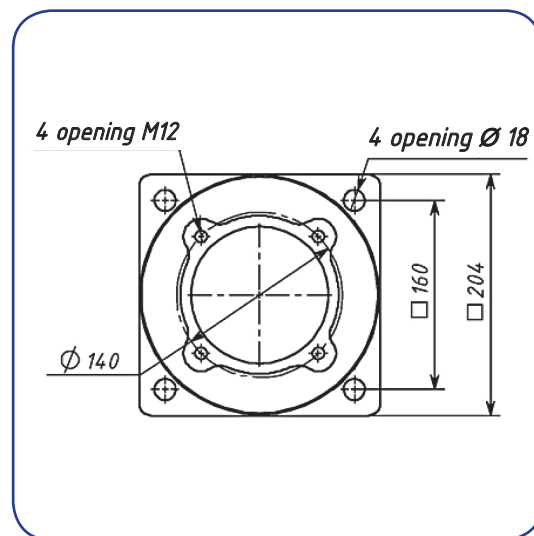
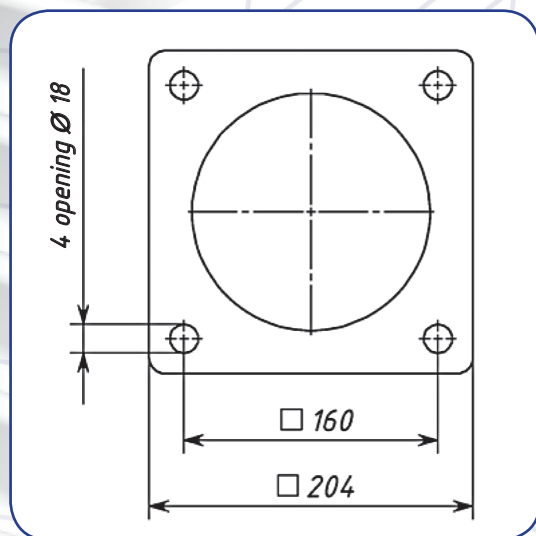
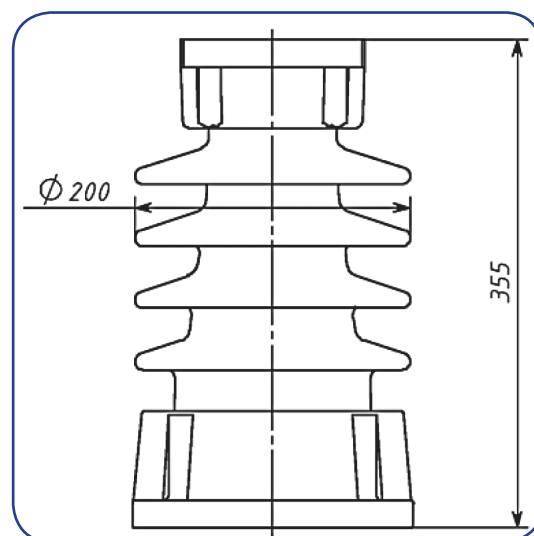
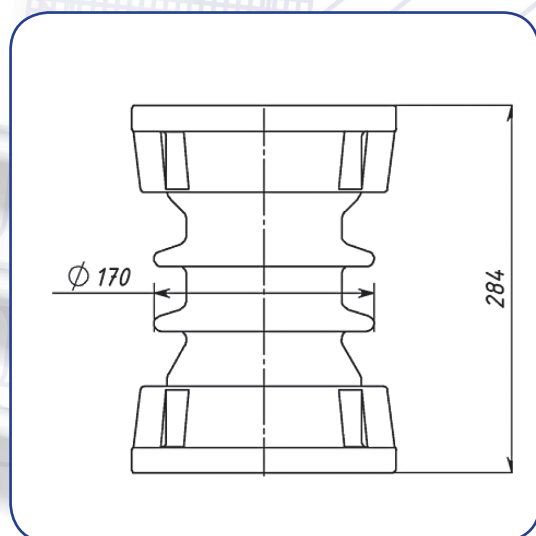


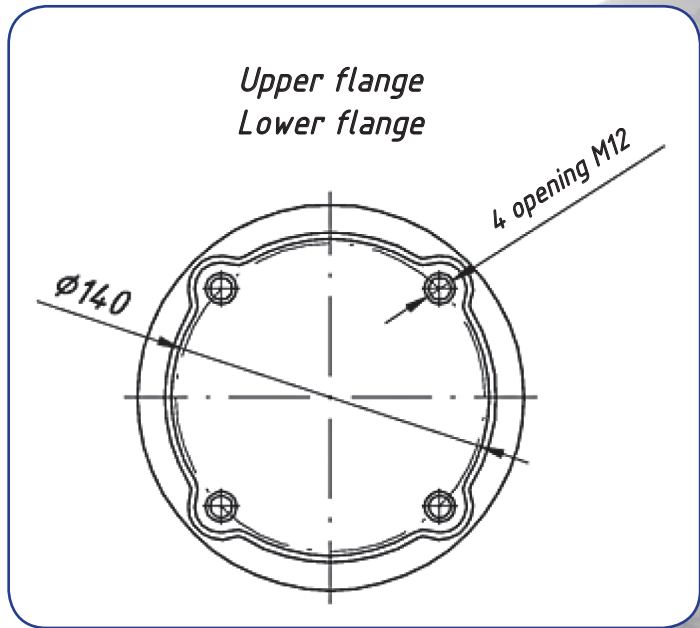
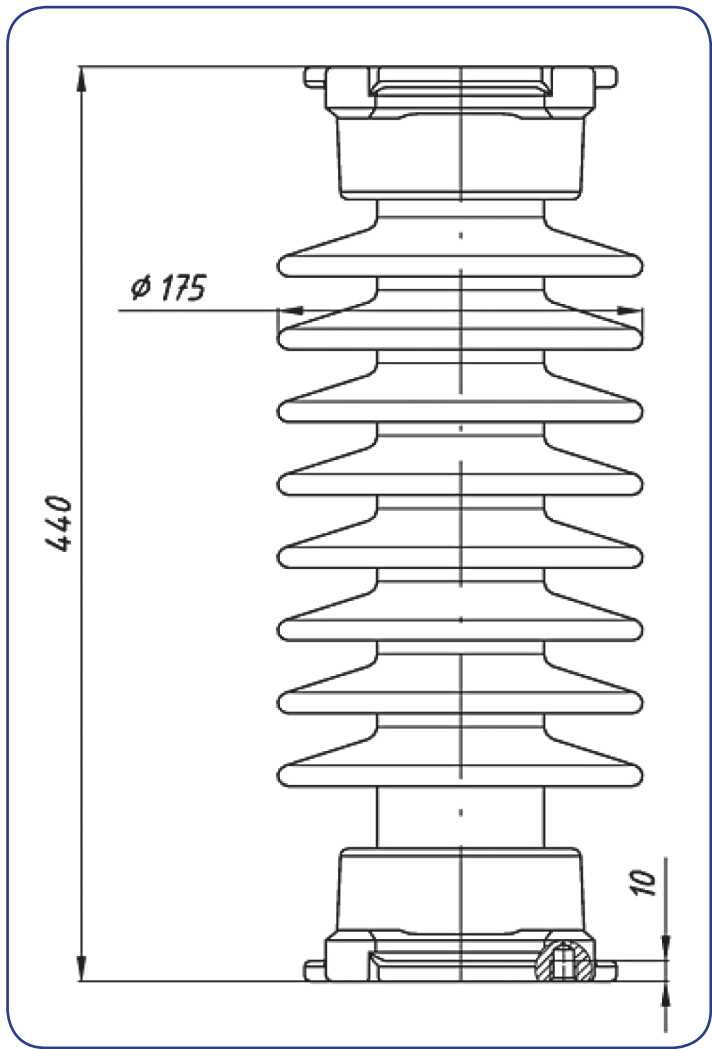
Fig. 1

Fig. 2

Indicator	IOS-10-2000 UHL1	IOS-20-2000 UHL1	IOS-10-2000 MUHL1	IOS-20-2000 MUHL1
Rated voltage, kV	10	20	10	20
Minimum bending strength, kN	20	20	20	20
Construction height H, mm	284	355	284	355
Creepage distance, min, cm	20	40	42	84
Specific creepage distance, cm/kV	1,6	1,6	3,1	3,1
Weight, max, kg	24,1	22,5	24,1	22,5
Insulating part diameter D, mm	170	200	170	200
Upper flange, A	160	140	160	140
Lower flange, A	160	160	160	160
Test voltage of (full) lightning impulse, kV	125	195	125	195
$n \times d_u$, where n is the number of openings in flanges, d_u is the upper flange opening diameter	4x18	4x12	4x18	4x12
$n \times d_v$, where n is the number of openings in flanges, d_v is the lower flange opening diameter	4x18	4x18	4x18	4x18
Fig.	1	2	1	2



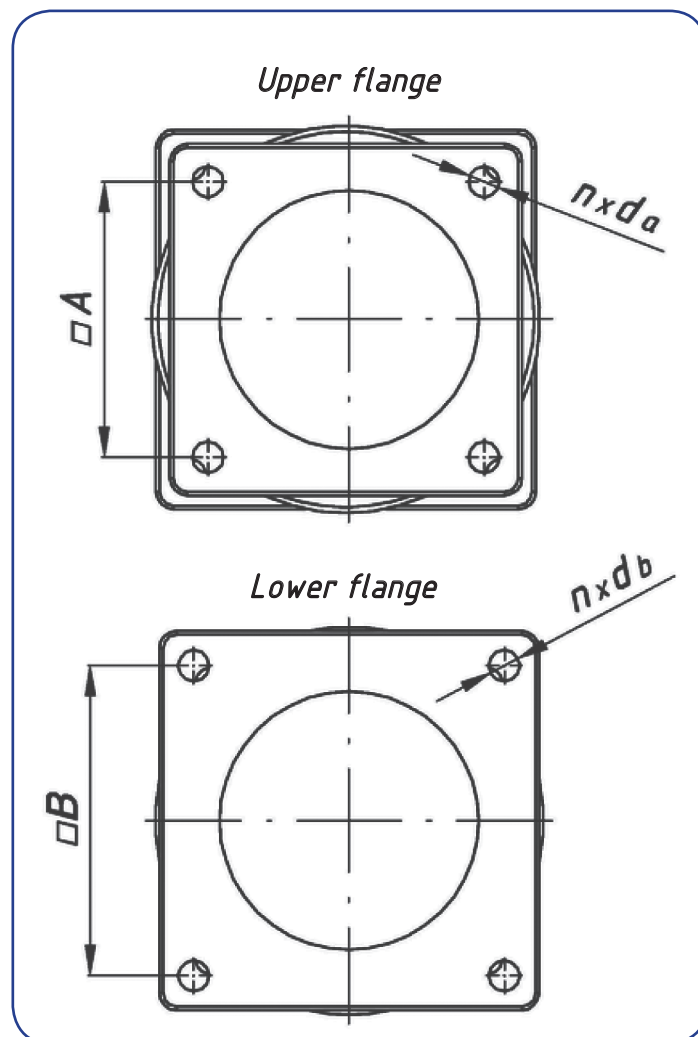
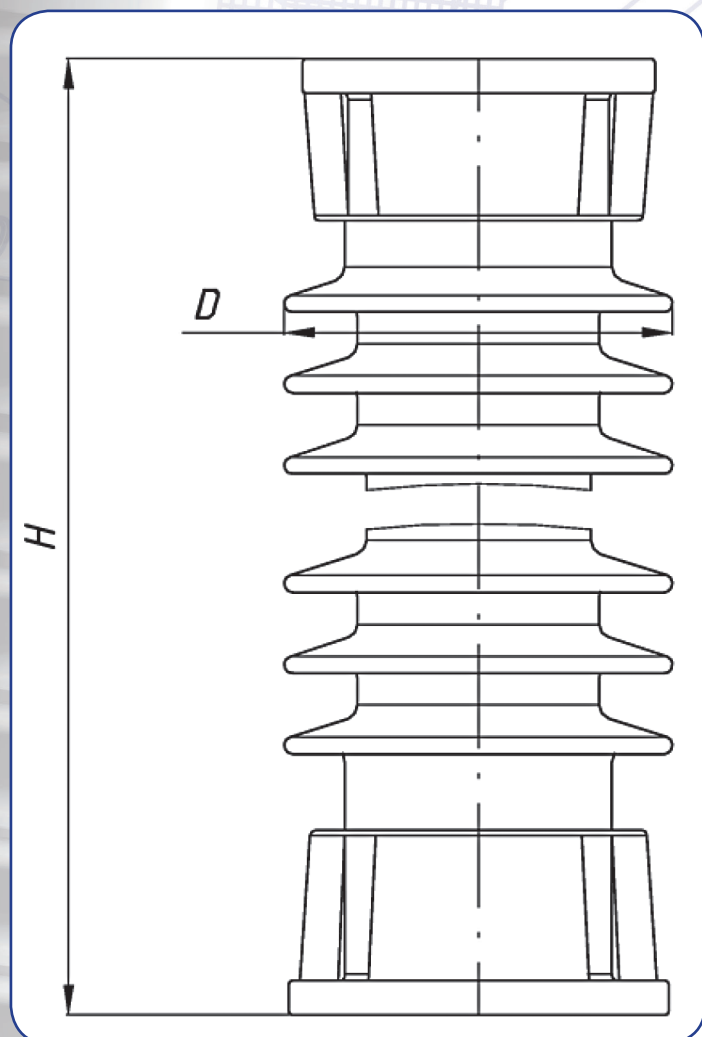
IOS-35-500-01 UHL1
IOS-35-500-01 M UHL1



Indicator	IOS -35-500-01 UHL1	IOS -35-500-01 M UHL1
Rated voltage, kV	35	35
Minimum bending strength, kN	5	5
Construction height H, mm	440	440
Creepage distance, min, cm	70	70
Specific creepage distance, cm/kV	1,7	1,7
Weight, max, kg	16	16
Insulating part diameter D, mm	175	175
Upper flange, A	140	140
Lower flange, A	140	140
Test voltage of (full) lightning impulse, kV	195	195
$n \times d_u$, where n is the number of openings in flanges, d_u is the upper flange opening diameter	4x12	4x12
$n \times d_l$, where n is the number of openings in flanges, d_l is the lower flange opening diameter	4x12	4x12

IOS-35-1000 UHL1 IOS-35-2000 UHL1

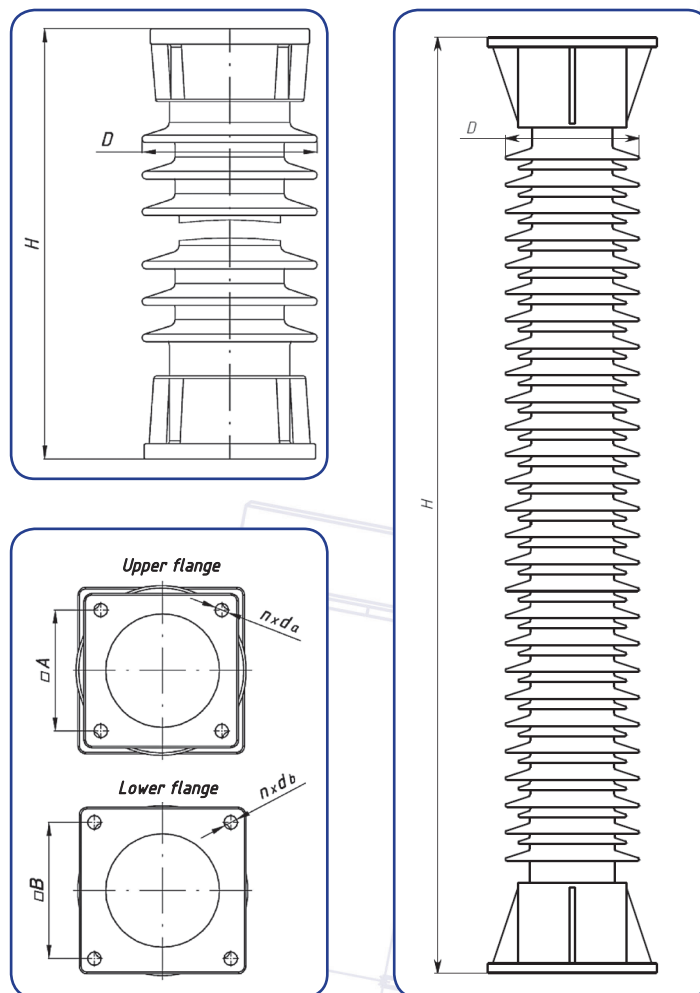
IOS-35-1000 M UHL1 IOS-35-2000 M UHL1



Indicator	IOS-35-1000 UHL1	IOS-35-2000 UHL1	IOS-35-1000 M UHL1	IOS-35-2000 M UHL1
Rated voltage, kV	35	35	35	35
Minimum bending strength, kN	10	20	10	20
Construction height H, mm	500	500	500	500
Creepage distance, min, cm	90	70	140	140
Specific creepage distance, cm/kV	2	1,6	3,1	3,1
Weight, max, kg	42,5	40	42,5	40
Insulating part diameter D, mm	230	230	230	230
Upper flange, A	160	160	160	160
Lower flange, A	160	180	160	180
Test voltage of (full) lightning impulse, kV	195	195	195	195
$n \times d_a$, where n is the number of openings in flanges, d_a is the upper flange opening diameter	4x18	4x18	4x18	4x18
$n \times d_b$, where n is the number of openings in flanges, d_b is the lower flange opening diameter	4x18	4x18	4x18	4x18



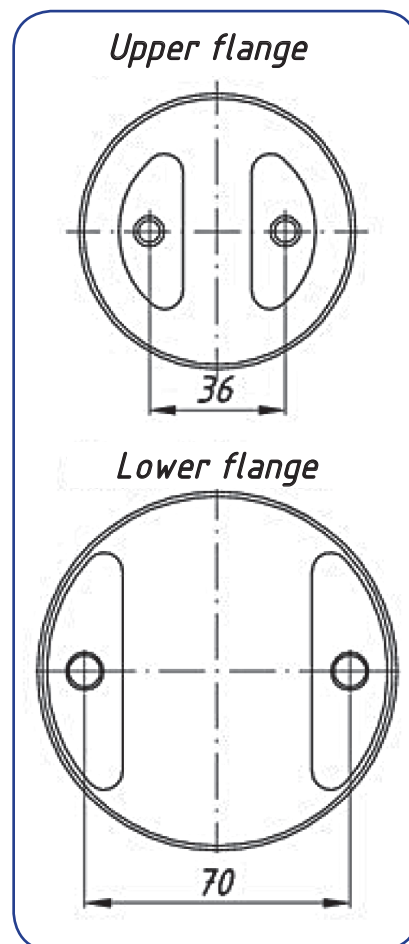
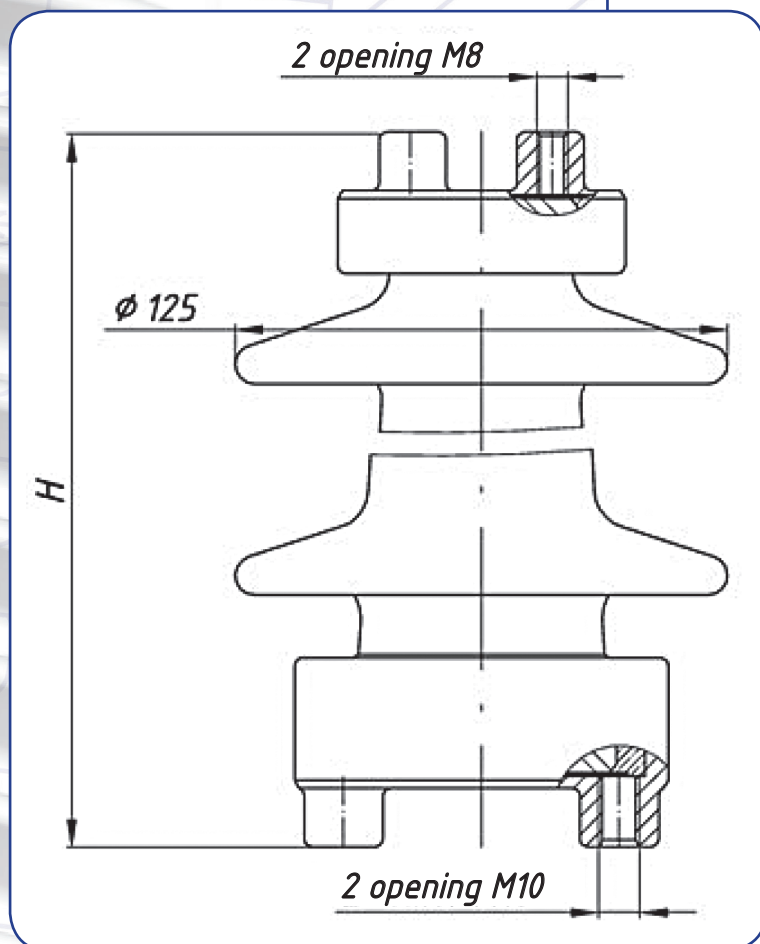
IOS-110-300 M UHL1
 IOS-110-400 M UHL1
 IOS-110-400 M-01 UHL1
 IOS-110-600 M UHL1
 IOS-110-600 M-01 UHL1
 IOS-110-600-02 M UHL1
 IOS-110-1250 M UHL1
 IOS-110-1250 M-01 UHL1
 IOS-110-1250-01 M UHL1
 IOS-110-2000 M UHL1
 IOS-110-2000 IM UHL1
 IOS-110-2000 M-01 UHL1
 IOS-110-2000-01 M UHL1
 IOS-110-2000-01 IM UHL1



Indicator	IOS-110-400 M UHL1	IOS-110-600 M UHL1	IOS-110-1250 M UHL1	IOS-110-2000 M UHL1	IOS-110-400 M-01 UHL1	IOS-110-600 M-01 UHL1	IOS-110-1250 M-01 UHL1	IOS-110-2000 M-01 UHL1	IOS-110-300 M UHL1	IOS-110-2000 M-01 UHL1	IOS-110-600-02 M UHL1	IOS-110-1250-01 M UHL1	IOS-110-2000 IM UHL1	IOS-110-2000-01 IM UHL1
Indicator	110	110	110	110	110	110	110	110	110	110	110	110	110	110
Rated voltage, kV	4	6	12.5	20	4	6	12.5	20	3	20	6	12.5	20	20
Minimum bending strength, kN	1050	1100	1100	1100					1020	1100	1100	1100	1100	1100
Construction height H, mm	190	223	210	200	390	390	390	390	245	210	280	205	210	210
Creepage distance, min, cm	1.5	1.6	1.6	1.5	3.1	3.1	3.1	3.1	1.6	1.6	2.2	1.6	1.7	1.7
Specific creepage distance, cm/kV	63	73	79	91	63	73	79	91	46	100	37	46	62	65
Weight, max, kg	1	1	1	1	1	1	1	1	1	1	2	1	1	1
Insulating part diameter D, mm	220	225	230	230	220	225	230	230	214	245	158	190	207	207
Upper flange, A	120	160	160	180	120	160	160	180	178	194	160	160	180	194
Lower flange, A	160	160	180	180	160	160	180	180	178	194	160	180	194	194
Test voltage of (full) lightning impulse, kV	480	480	480	480	480	480	480	480	480	480	480	480	480	480
$n \times d_a$, where n is the number of openings in flanges, d_a is the upper flange opening diameter	4x12	4x18	4x18	4x18	4x12	4x18	4x18	4x18	4x18	4x20	4x18	4x18	4x18.5	4x20
$n \times d_b$, where n is the number of openings in flanges, d_b is the lower flange opening diameter	4x18	4x18	4x18	4x20	4x18	4x18	4x18	4x20	4x18	4x20	4x18	4x18.5	4x20	4x20

C4-80 II UHL
C4-80 II T

C4-80 I UHL
C4-80 I T



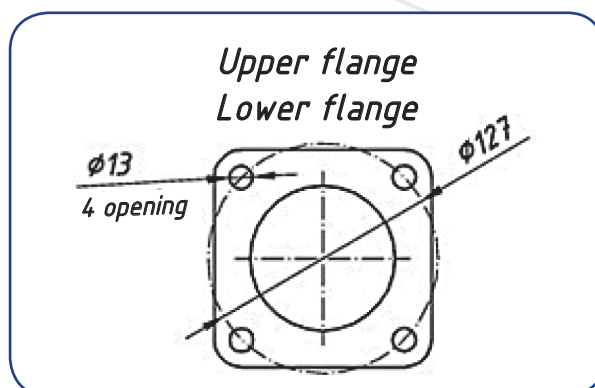
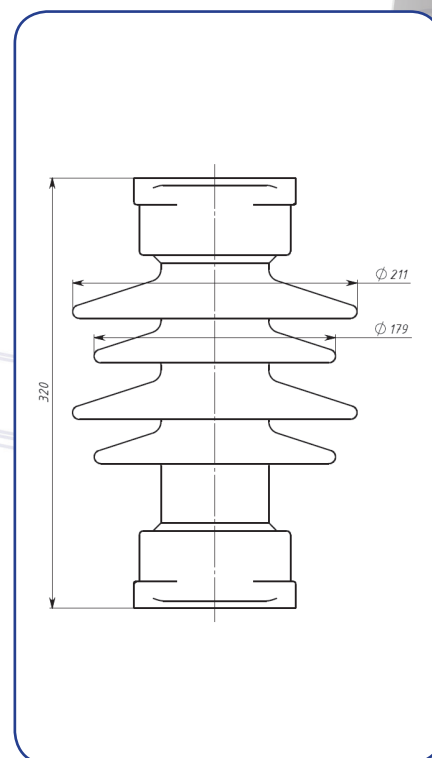
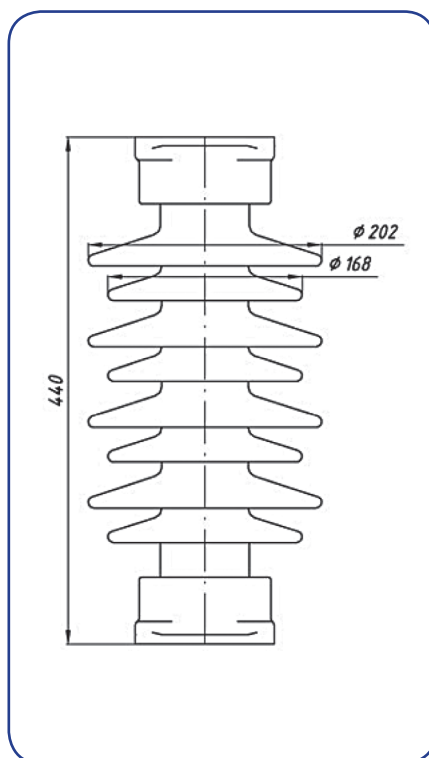
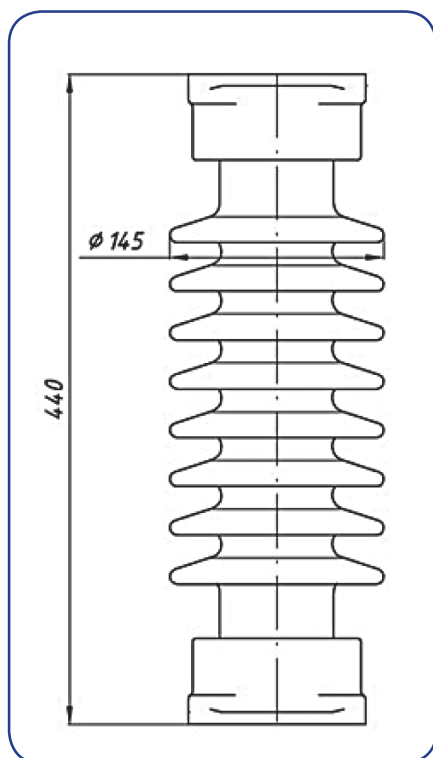
Indicator	C4-80 II UHL	C4-80 II T	C4-80 I UHL	C4-80 I T
Rated voltage, kV	10	10	10	10
Minimum bending strength, kN	4	4	4	4
Construction height H, mm	215	215	190	190
Creepage distance, min, cm	30	30	20	20
Weight, max, kg	2,6	2,6	2,1	2,1
Insulating part diameter D, mm	125	125	125	125
Upper flange, D 1, mm	36	36	36	36
Lower flange, D 2, mm	70	70	70	70
Test voltage of (full) lightning impulse, kV	80	80	80	80



S4-195 I M UHL
S4-195 II M UHL

S4-195 I M-01 UHL
S4-195 II M-01 UHL

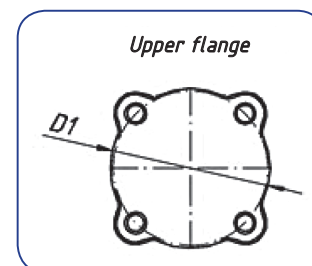
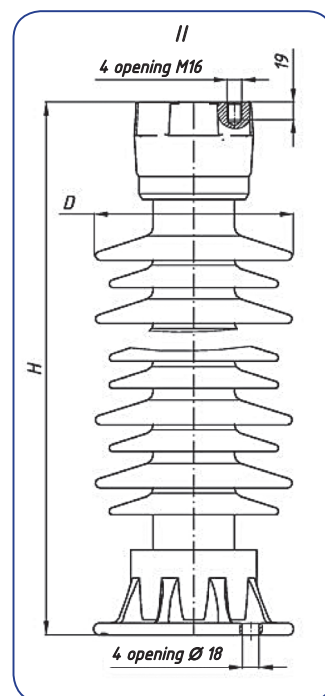
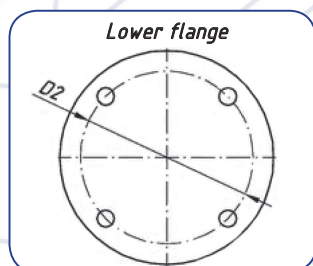
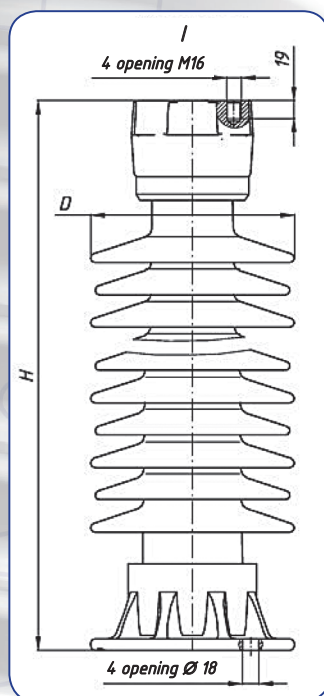
S6-125 II UHL1



Indicator	C4-195 I MUHL	C4-195 II MUHL	C4-195 I M-01UHL	C4-195 II M-01UHL	C6-125 II UHL1
Rated voltage, kV	35	35	35	35	20
Minimum bending strength, kN	4	4	4	4	6
Construction height H, mm	440	440	440	440	320
Creepage distance, min, cm	70	105	140	140	55
Specific creepage distance, cm/kV	1,6	2,5	3,1	3,1	2.3
Weight, max, kg	10,5	13,5	10,5	13,5	9.7
Insulating part diameter D, mm	145	202	145	202	211
Upper flange D 1,mm	127	127	127	127	127
Lower flange D 2, mm	127	127	127	127	127
Test voltage of (full) lightning impulse, kV	195	195	195	195	125
Fig.	1	2	1	2	3

S4-450 I M UHL
S4-450 I M-01 UHL
S4-550 I M UHL
S6-550 I M UHL
S6-550 I M-01 UHL

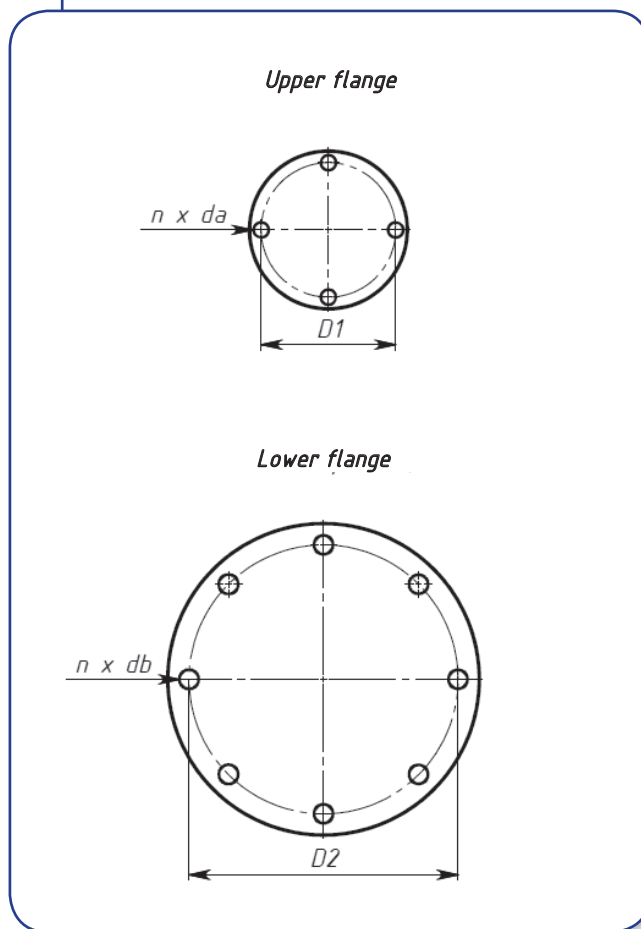
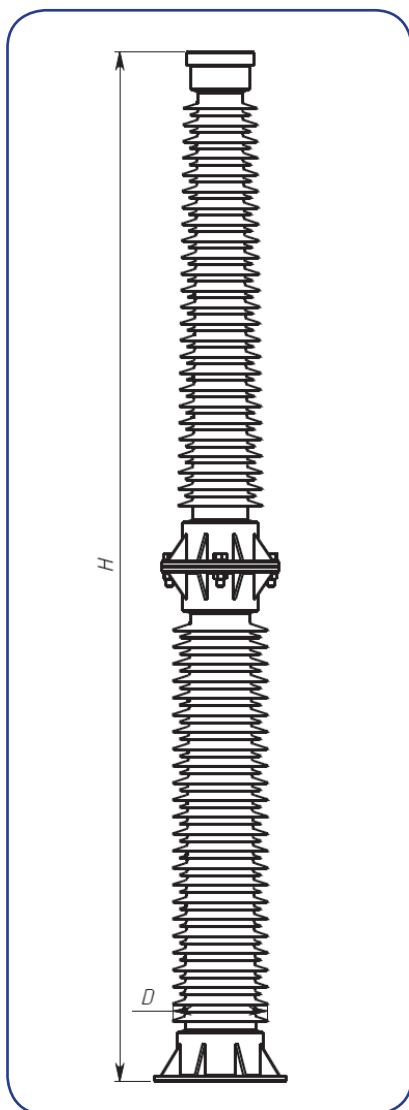
S4-450 II M UHL
S4-450 II M-01 UHL
S4-550 II M UHL
S6-550 II M UHL
S6-550 II M-01 UHL



Indicator	C4-450 I M UHL	C4-450 II M UHL	C6-550 I -M UHL	C6-550 II -M UHL	C4-450 I -M-01UHL	C4-450 II -M-01 UHL	C6-550 I -M-01 UHL	C6-550 II -M-01 UHL	C4-550 I M UHL	C4-550 II M UHL
Rated voltage, kV	110	110	110	110	110	110	110	110	110	110
Minimum bending strength, kN	4	4	6	6	4	4	6	6	4	4
Construction height H, mm	1050	1050	1220	1220	1050	1050	1220	1220	1220	1220
Creepage distance, min, cm	190	280	217	330	390	390	390	390	217	330
Specific creepage distance, cm/kV	1,5	2	1,6	2,5	3,1	3,1	3,1	3,1	1.6	2.5
Weight, max, kg	39	44	52,5	64	39	44	52,5	64	50	60
Insulating part diameter D, mm	180	217	180	225	180	217	180	225	180	218
Upper flange D 1,mm	127	127	127	127	127	127	127	127	127	127
Lower flange D 2, mm	178	178	200	200	178	178	200	200	200	200
Test voltage of (full) lightning impulse, kV	450	450	550	550	450	450	550	550	550	550



S6-950 I-M UHL, T1
S6-950 II-M UHL, T1
S8-1050 II-M UHL, T1



Indicator	S6-950 I-M UHL,T1	S6-950 II-M UHL,T1	S8-1050 II-M UHL,T1
Rated voltage, kV	220	220	220
Minimum bending strength, kN	6	6	8
Construction height H, mm	2100	2100	2300
Creepage distance, min, cm	410	570	570
Specific creepage distance, cm/kV	1.6	2.3	2.3
Weight, max, kg	88	92	129
Insulating part diameter D, mm	200	205	209
Upper flange D1, mm	127	127	127
Lower flange D2, mm	225	225	254
Test voltage of (full) lightning impulse, kV	950	950	1050
$n \times d_a$, where n is the number of openings in flanges, d_a is the upper flange opening diameter	4xM16	4xM16	4xM16
$n \times d_b$, where n is the number of openings in flanges, d_b is the lower flange opening diameter	4x18	4x18	8x18

Reinforced Bushing Insulators

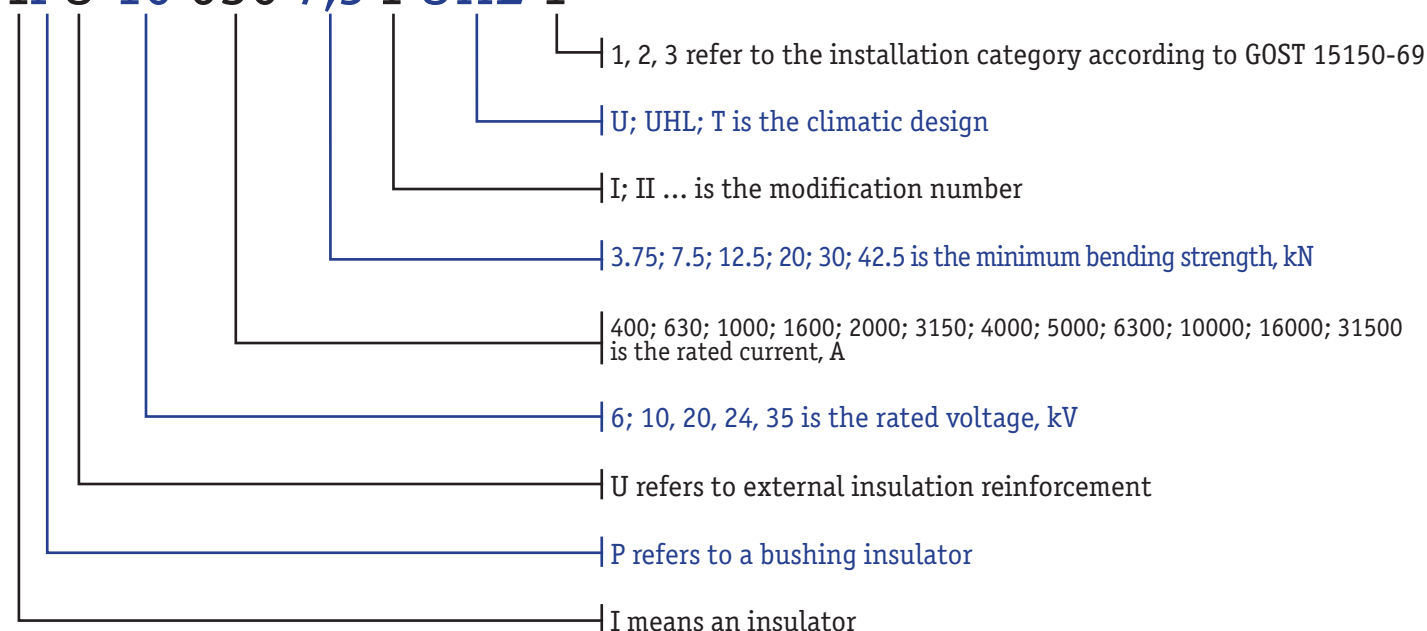
Insulator	Page	Insulator	Page
<i>Insulators with wiring designed for indoor operation and indoor-outdoor installations</i>		<i>Insulators without wiring designed for indoor operation and indoor-outdoor installations</i>	
IP – 10/630-7.5 UHL2	14	IP 20/6300-20 UHL2	23
IP – 10/1000-7.5 UHL2	15	IP 20/6300-20 T2	23
IPU-10/630-7.5 UHL1	16	IP-24/31500-30 UHL2	24
IPU-10/630-7.5 T1	16	IP-24/31500-30 T2	24
IPU-10/630-7.5 I UHL1	17	IP-27/31500-30 UHL2	24
IPU-10/630-7.5 I T1	17	IP-27/31500-30 T2	24
IPU-10/1000-7.5 UHL1	18	IP-24/3150-30 UHL2	25
IPU-10/2000-12.5 UHL1	19	IP-24/3150-30 T2	25
IPU-10/3150-12.5 UHL1	19	IP-27/5000-30 UHL2	26
IP-20/2000-12.5 UHL1	20	IP-27/5000-30 T2	26
IP-20/2000-12.5 T1	20	IP-20/16000 UHL2	27
IP-20/3150-12.5 UHL1	21	IP-20/16000 T2	27
IP-20/3150-12.5 T1	21	IP-10/4000-42.5 U2	27
IP-35/1000-7.5 UHL1	22	IP-20/5000-12.5 UHL1	28
		IP-20/5000-12.5 T1	28
		IP-20/5000-15 UHL1	29
		IP-20/5000-15 T1	29
		IP-35/10000-42.5 UHL1	30

Applications

These insulators are used for wiring and connection of current-carrying elements in electrical equipment and distribution devices of electric power stations and AC substations with voltage up to 1000 V and frequency up to 100 Hz, as well as for closed conductors.

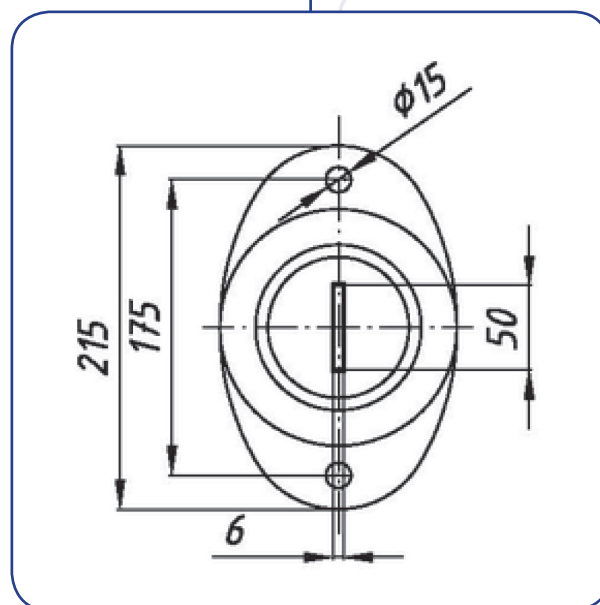
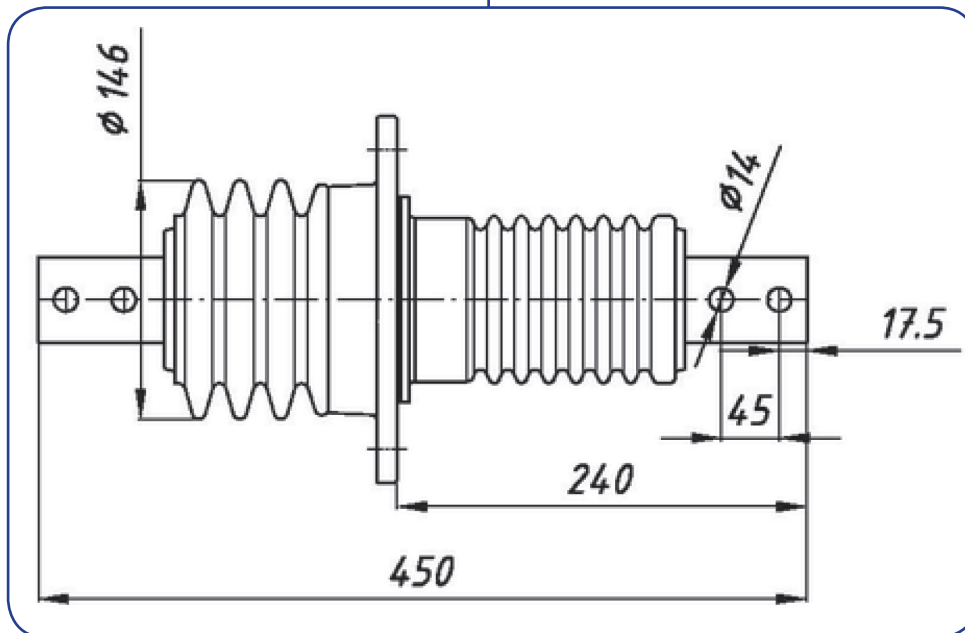
Insulator Designation Legend:

IPU 10 630 7,5 I UHL 1



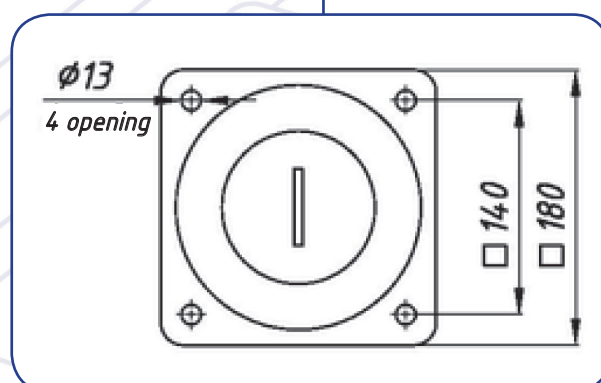
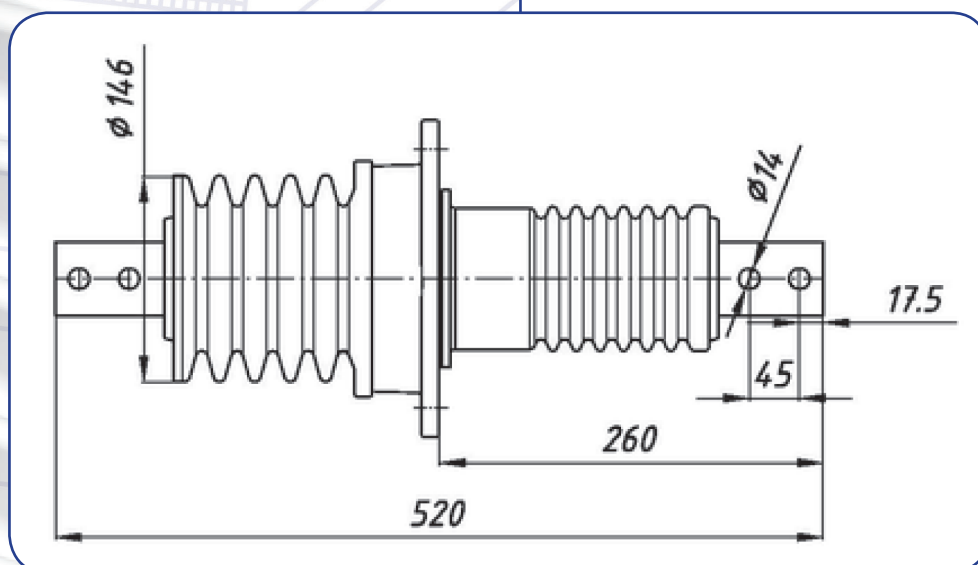
Insulators with wiring designed for indoor operation.

IP-10/630-7,5 UHL2



Indicator	IP-10/630-7,5 UHL2
Rated voltage, kV	10
Rated current, A	630
Minimum bending strength, kN	7,5
Construction height L, mm	450
Creepage distance, min, cm	200
Insulating part diameter, mm	146
Weight, max, kg	5
Lightning impulse test voltage, kV	80

IP-10/1000-7,5 UHL2



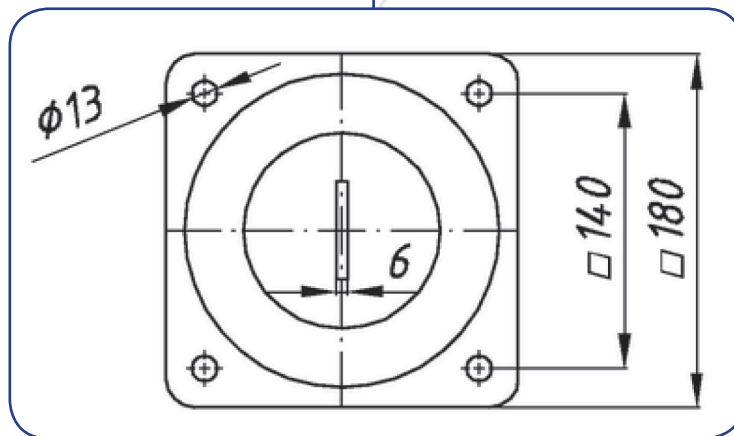
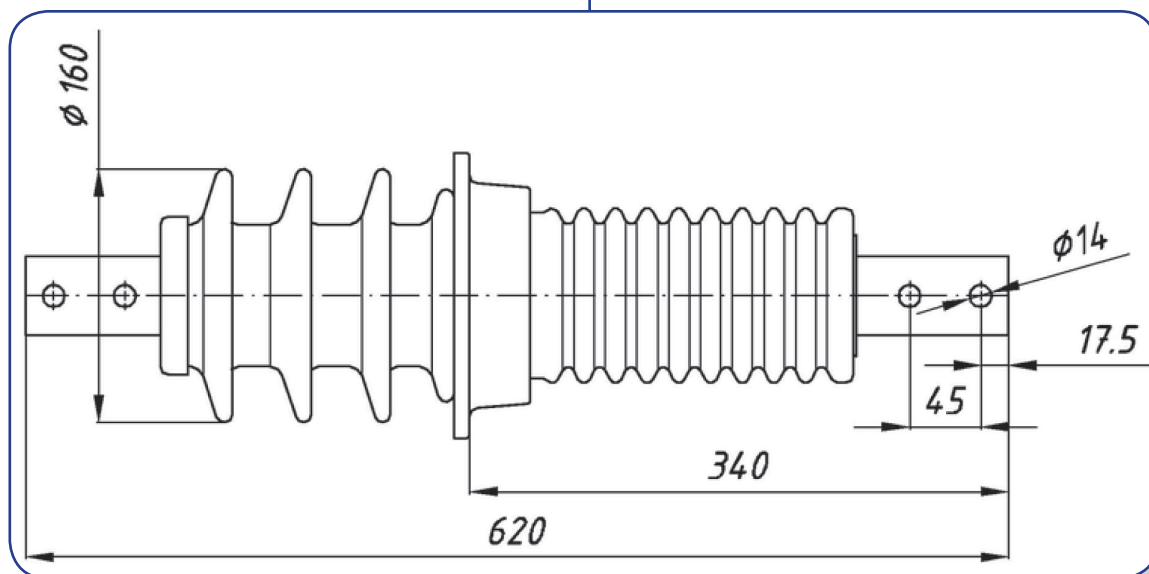
Indicator	IP-10/1000-7,5 UHL2
Specific creepage distance, cm/kV	3,1
Rated voltage, kV	10
Rated current, A	1000
Minimum bending strength, kN	7,5
Construction height L, mm	520
Insulating part diameter, mm	166
Weight, max, kg	7,8
Lightning impulse test voltage, kV	80



Insulators with wiring designed for indoor-outdoor installations.

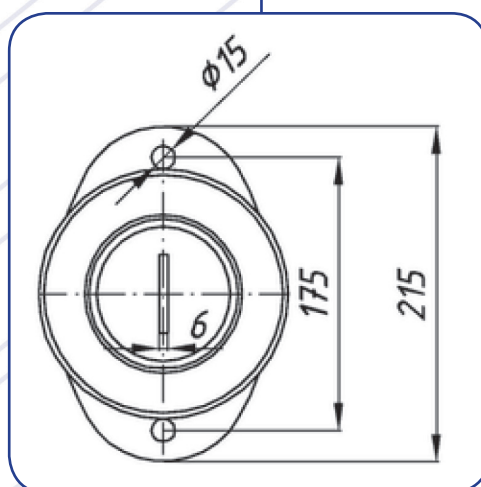
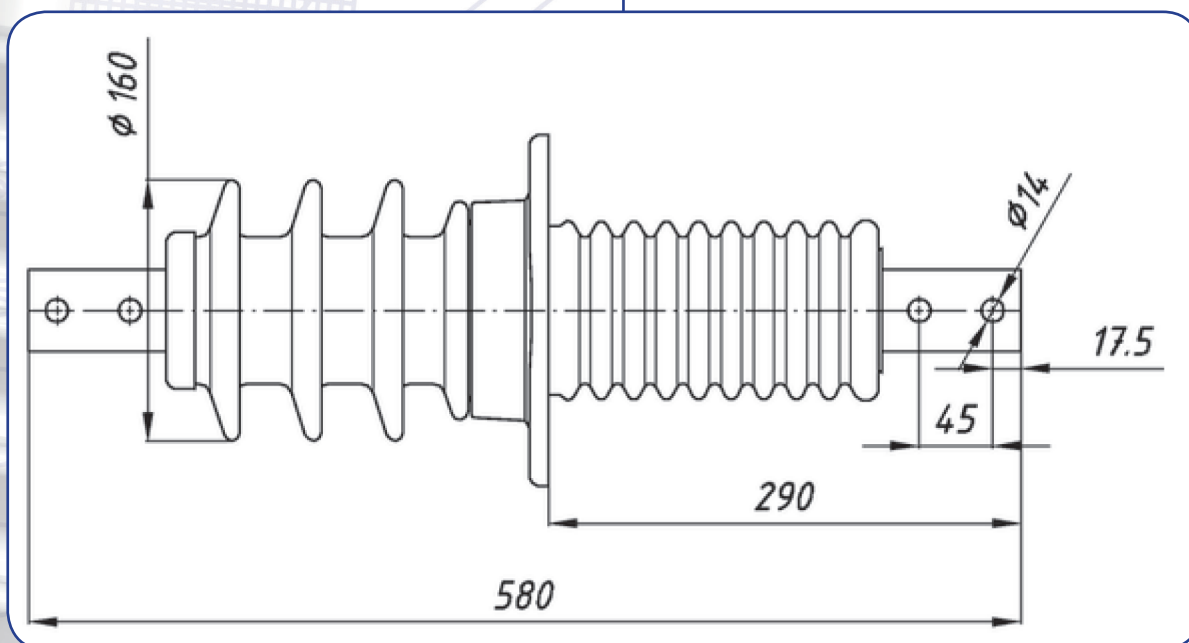
IPU-10/630-7,5 UHL1

IPU-10/630-7,5 T1



Indicator	IPU-10/630-7,5 UHL1	IPU-10/630-7,5 T1
Rated voltage, kV	10	10
Rated current, A	630	630
Minimum bending strength, kN	7,5	7,5
Construction height L, mm	620	620
Creepage distance, min, cm	300	300
Insulating part diameter, mm	160	160
Weight, max, kg	8,0/9,0	8,0/9,0
Lightning impulse test voltage, kV	80	80

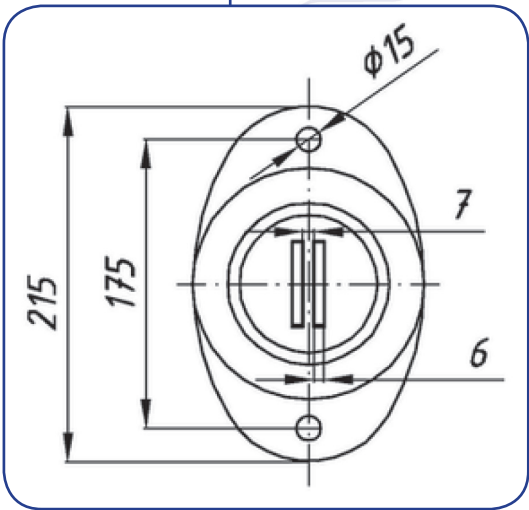
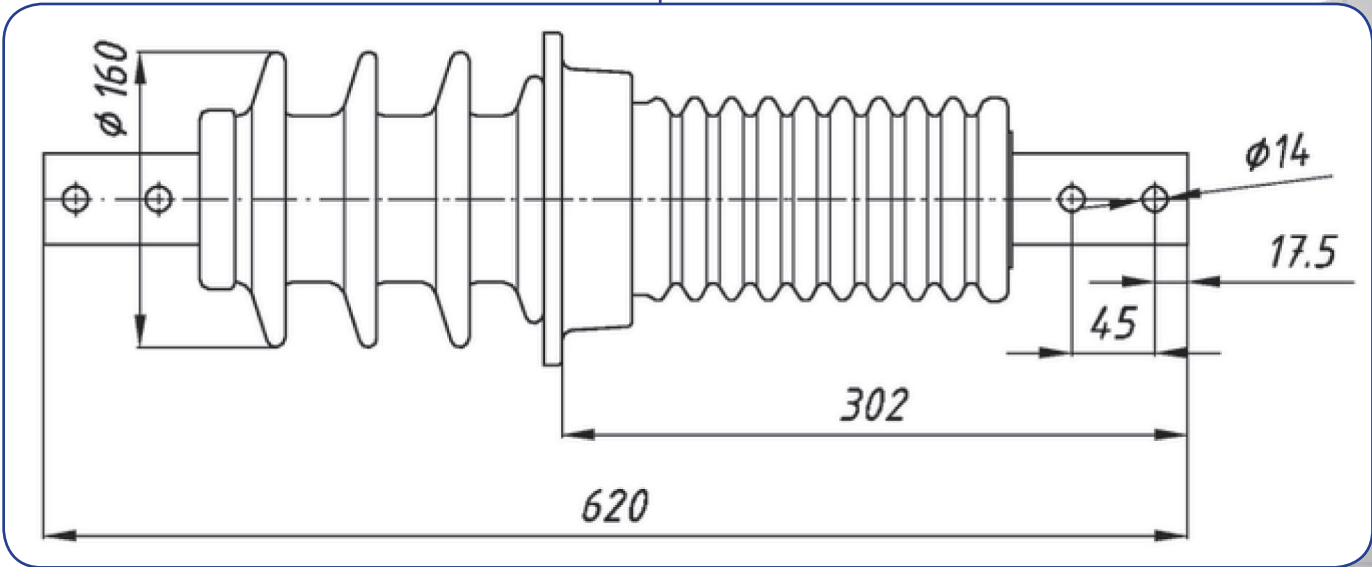
IPU-10/630-7,5 I UHL1 IPU-10/630-7,5 I T1



Indicator	IPY-10/630-7,5 I UHL1	IPY-10/630-7,5 I T1
Rated voltage, kV	10	10
Rated current, A	630	630
Minimum bending strength, kN	7,5	7,5
Construction height L, mm	580	580
Creepage distance, min, cm	300	300
Insulating part diameter, mm	160	160
Weight, max, kg	7,0/7,6	7,0/7,6
Lightning impulse test voltage, kV	80	80



IPY-10/1000-7,5 UHL1



Indicator	IPU-10/1000-7,5 UHL1
Rated voltage, kV	10
Rated current, A	1000
Minimum bending strength, kN	7,5
Construction height L, mm	620
Creepage distance, at least, cm	300
Insulating part diameter, mm	160
Weight, max, kg	8
Lightning impulse test voltage, kV	80

IPU-10/2000-12,5 UHL1 IPU-10/3150-12,5 UHL1

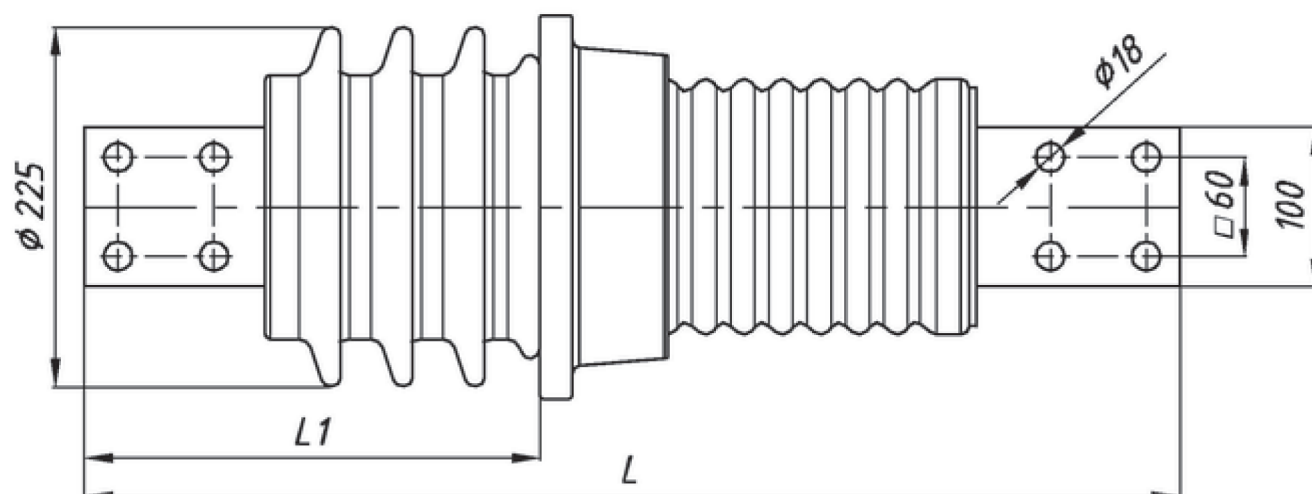


Fig. 1

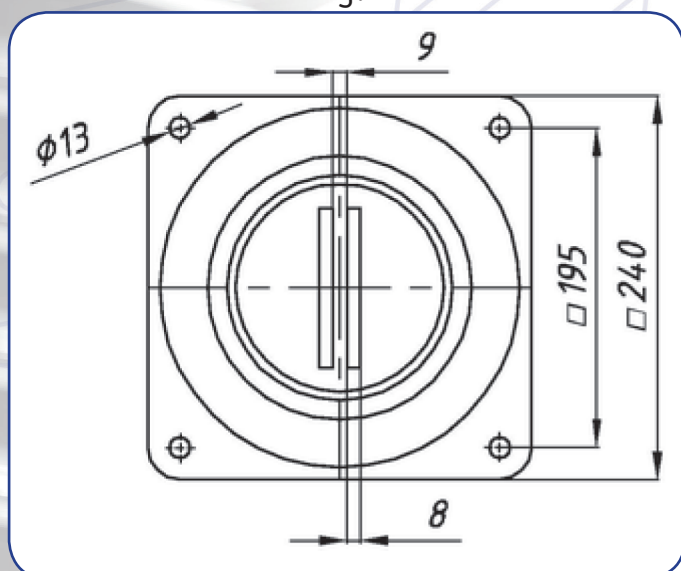
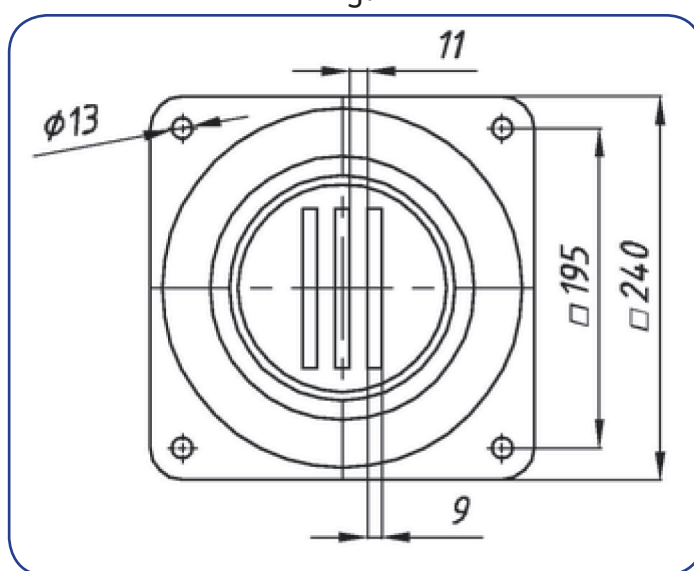


Fig. 2



Indicator	IPU-10/2000-12,5 UHL1	IPU-10/3150-12,5 UHL1
Rated voltage, kV	10	10
Rated current, A	2000	3150
Minimum bending strength, kN	12,5	12,5
Construction height L, mm	685	705
Distance to flange L1, mm		
Creepage distance, min, cm	300	300
Insulating part diameter, mm	225	225
Weight, max, kg	27.0	31.0
Lightning impulse test voltage, kV	80	80
Fig.	1	2



IP-20/2000-12,5 UHL1
IP-20/2000-12,5 T1

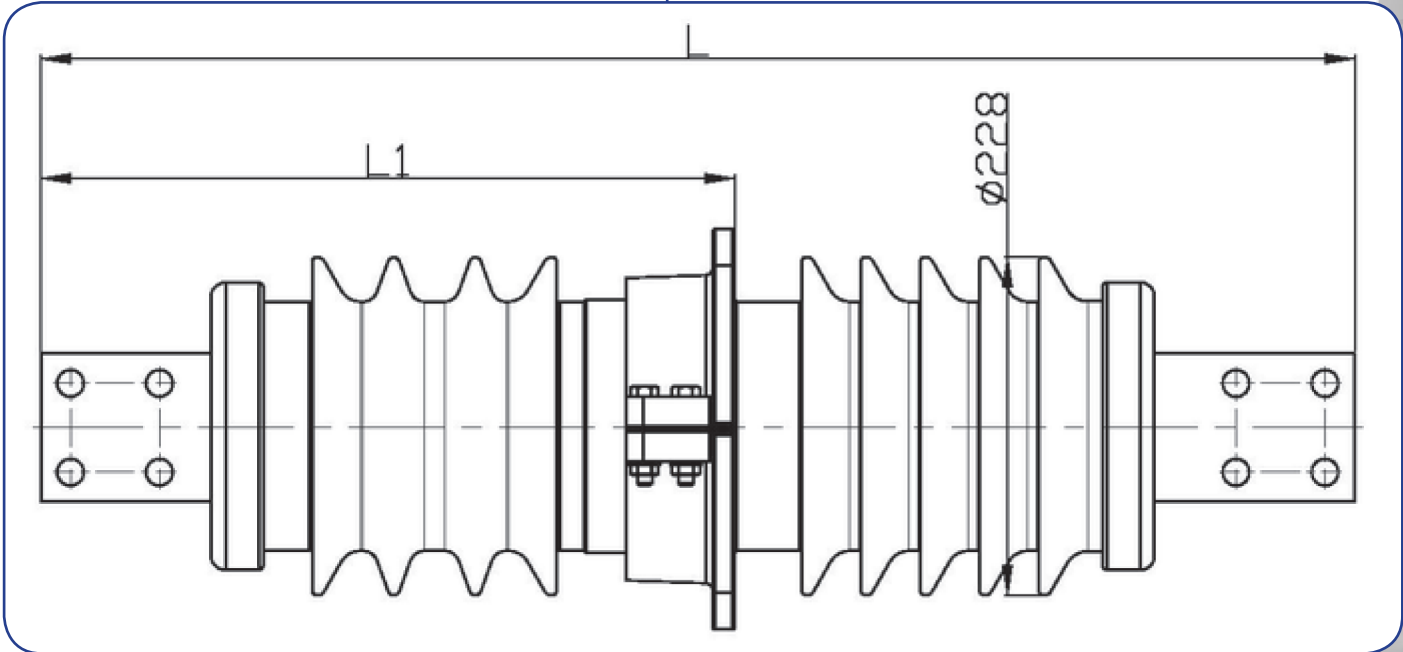
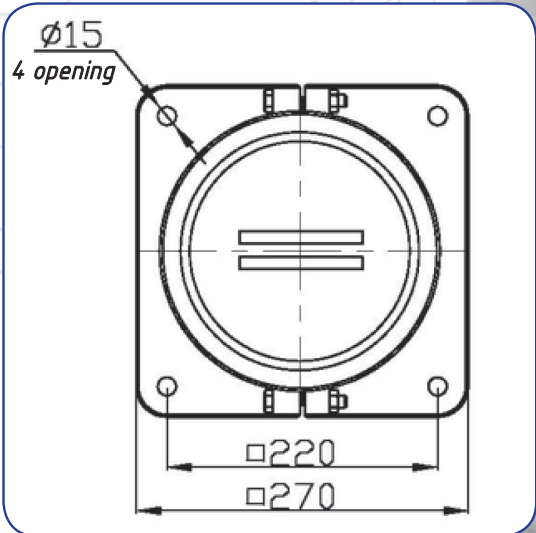
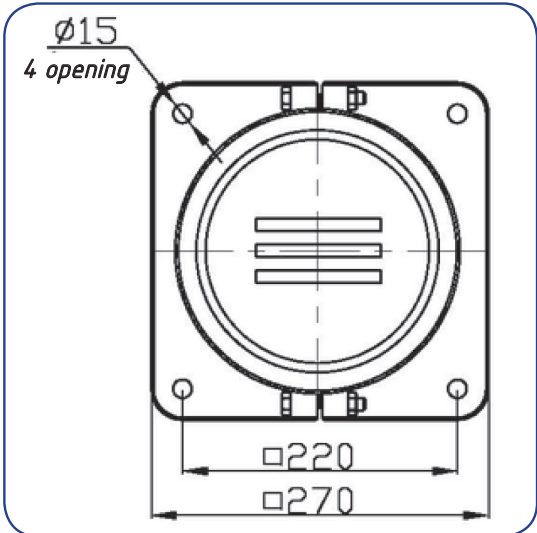


Fig. 1

Fig. 2



Indicator	IP-20/2000-12,5 UHL1	IP-20/2000-12,5 T1
Rated voltage, kV	20	20
Rated current, A	2000	2000
Minimum bending strength, kN	12,5	12,5
Construction height L, mm	886	915
Distance to flange L1, mm	468	483
Distance between centers of mounting openings A, mm.	60	45
Creepage distance, at least, cm	400	400
Insulating part diameter, mm	228	228
Weight, up to, kg	35	45
Lightning impulse test voltage, kV	80	80
Fig.	1	2

IP-20/3150-12,5 UHL1 IP-20/3150-12,5 T1

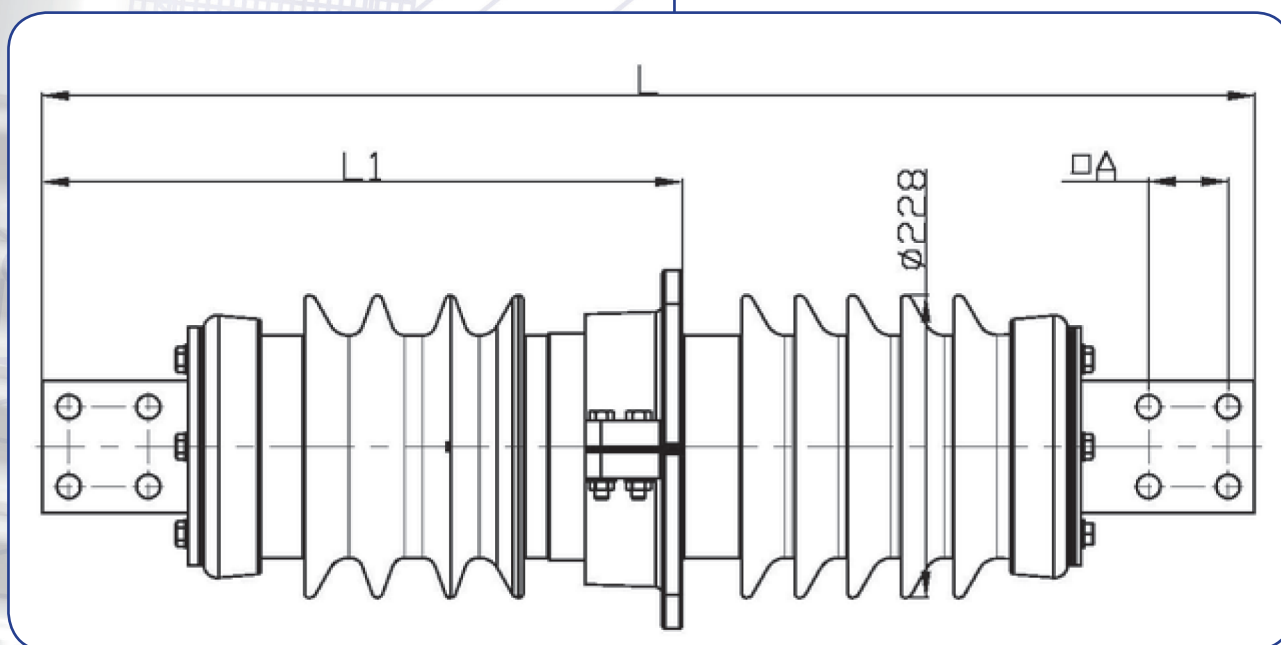
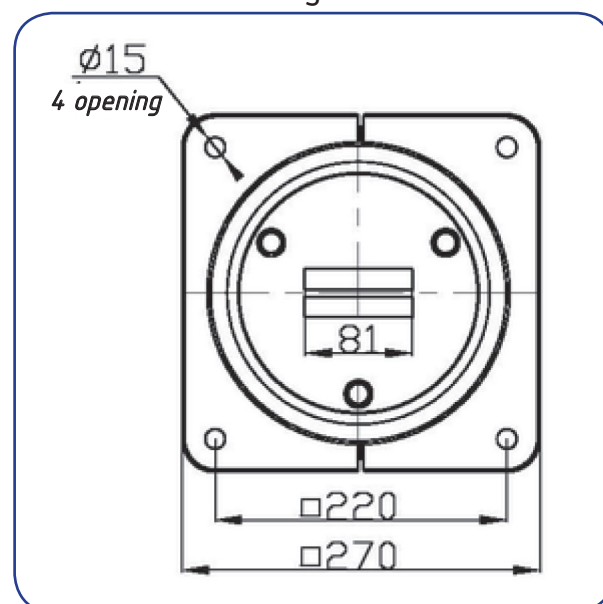
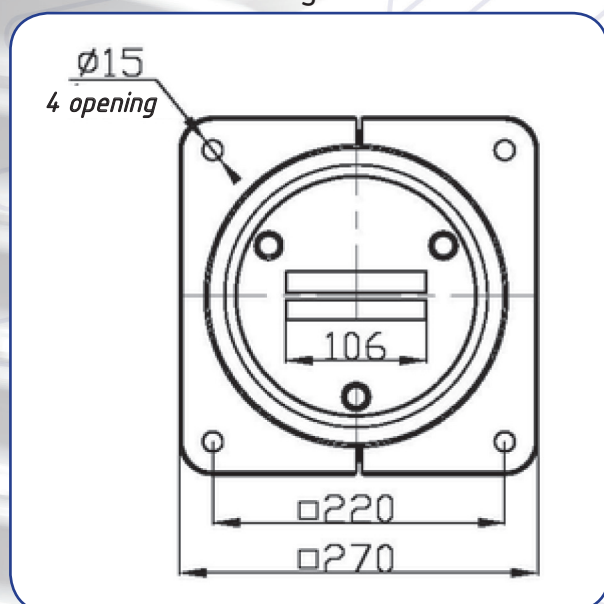


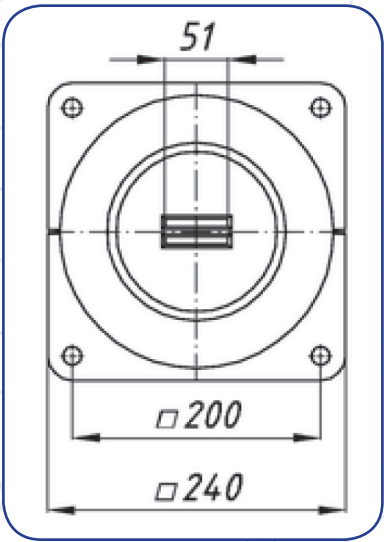
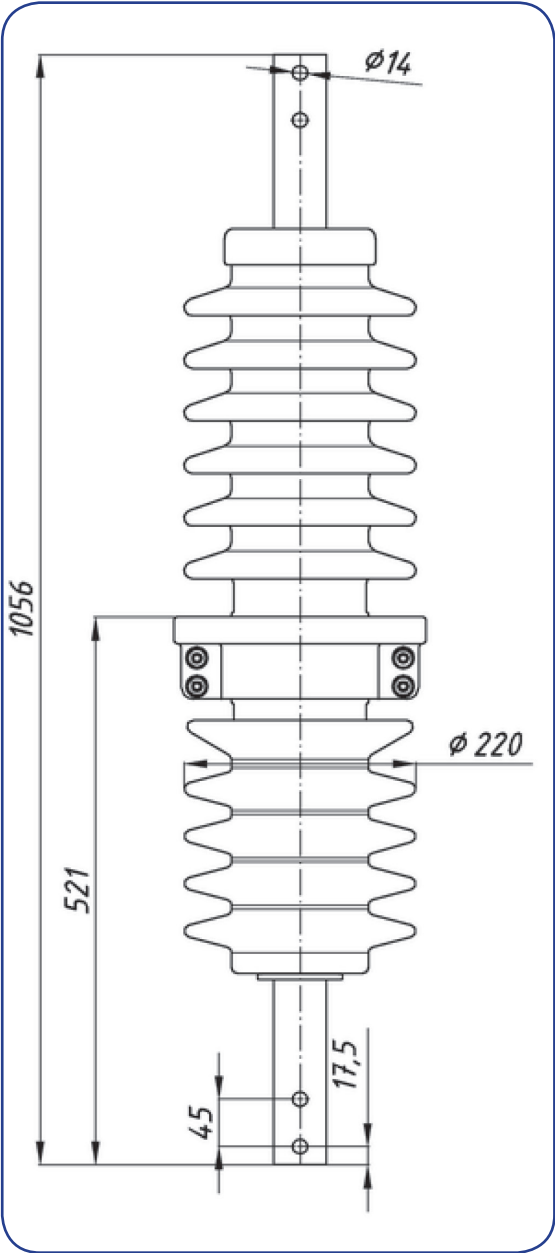
Fig. 1

Fig. 2



Indicator	IP-20/3150-12,5 UHL1	IP-20/3150-12,5 T1
Rated voltage, kV	20	20
Rated current, A	3150	3150
Minimum bending strength, kN	12,5	12,5
Construction height L, mm	886	886
Creepage distance, at least, cm	400	400
Insulating part diameter, mm	250	250
Weight, up to, kg	34	34
Lightning impulse test voltage, kV	125	125
Fig.	1	2

IP-35/1000-7,5 UHL1

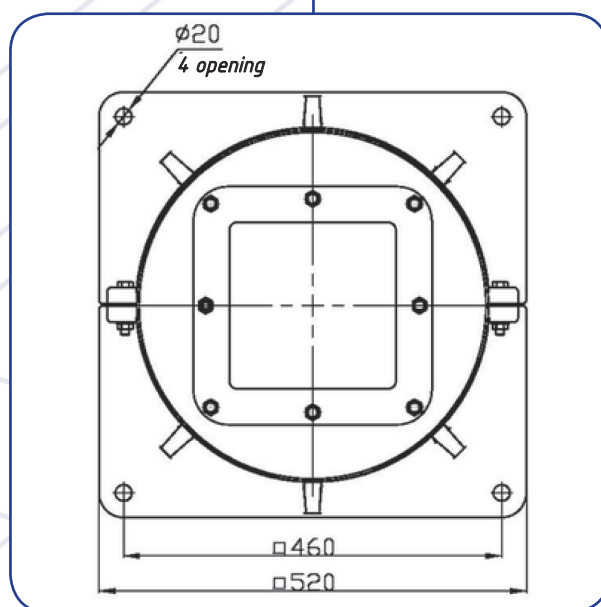
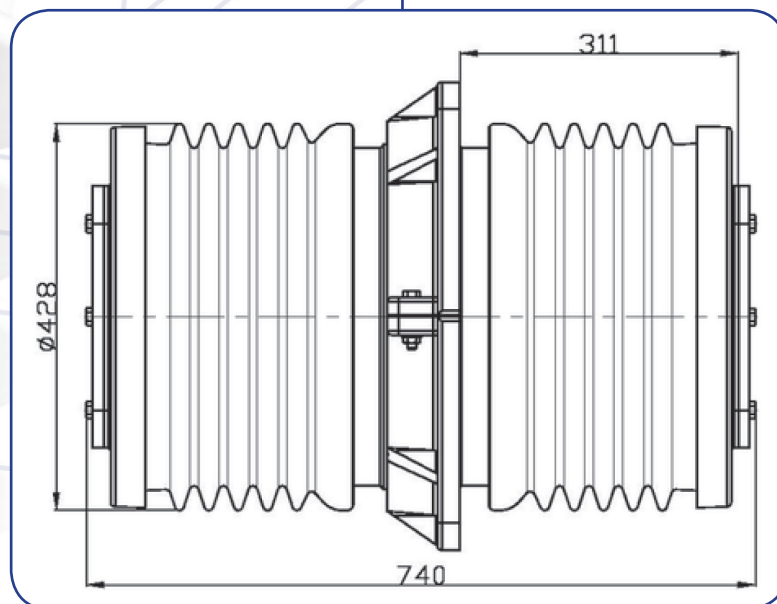


Indicator	IP-35/1000-7,5 UHL1
Rated voltage, kV	35
Rated current, A	1000
Minimum bending strength, kN	7,5
Construction height L, mm	1056
Creepage distance, at least, cm	700
Insulating part diameter, mm	215
Weight, max, kg	32,7
Lightning impulse test voltage, kV	195

Insulators without wiring designed for indoor operation.

IP 20/6300-20 UHL2

IP 20/6300-20 T2

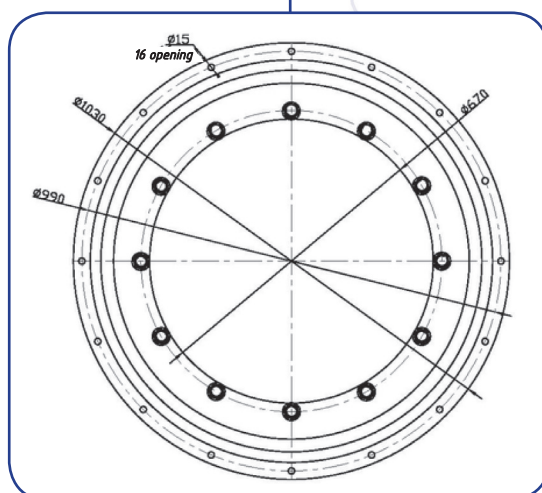
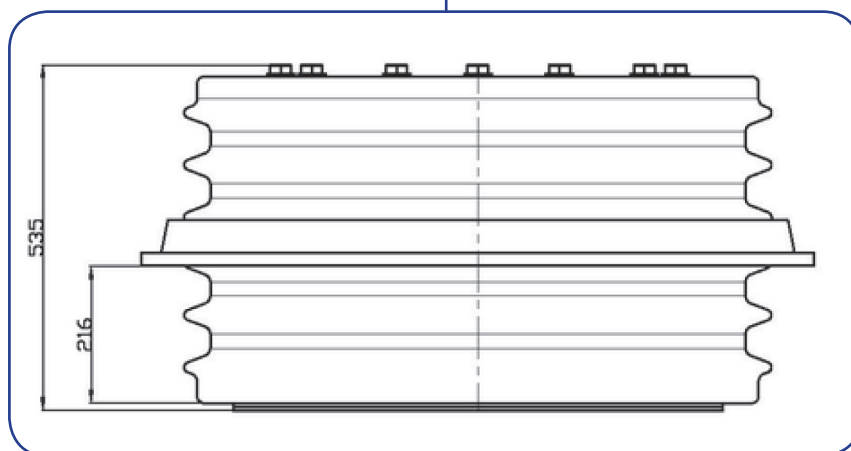


Indicator	IP 20/6300-20 UHL2	IP 20/6300-20 T2
Rated voltage, kV	20	20
Rated current, A	6300	6300
Minimum bending strength, kN	20	20
Construction height L, mm	740	740
Creepage distance, min, cm		
Insulating part diameter, mm	428	428
Weight, up to, kg	102,1	102,1
Lightning impulse test voltage, kV	125	125



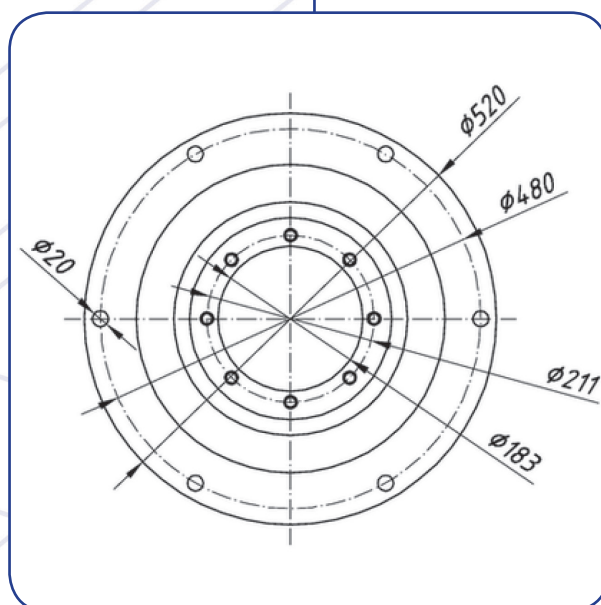
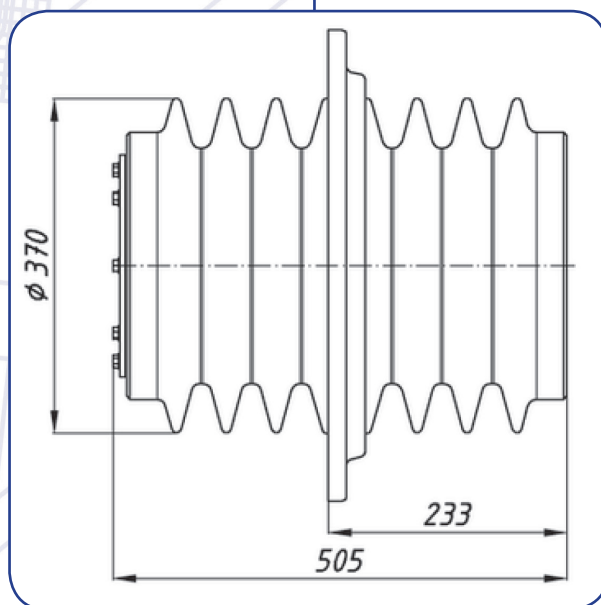
IP-24/31500-30 UHL2
IP-24/31500-30 T2

IP-27/31500-30 UHL2
IP-27/31500-30 T2



Indicator	IP-24/31500-30 UHL2	IP-24/31500-30 T2	IP-27/31500-30 UHL2	IP-27/31500-30 T2
Rated voltage, kV	24	24	24	24
Rated current, A	31500	31500	31500	31500
Minimum bending strength, kN	30	30	30	30
Construction height L, mm	535	535	535	535
Creepage distance, min, cm				
Insulating part diameter, mm	880	880	880	880
Weight, max, kg	158	158	158	158
Lightning impulse test voltage, kV	150	150	150	150

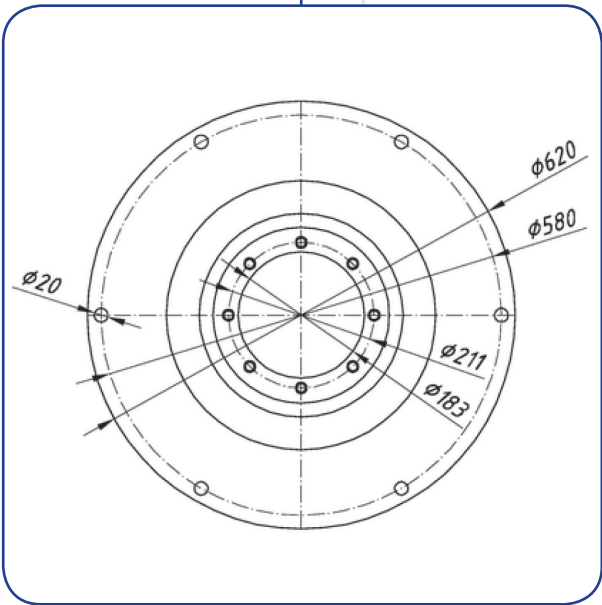
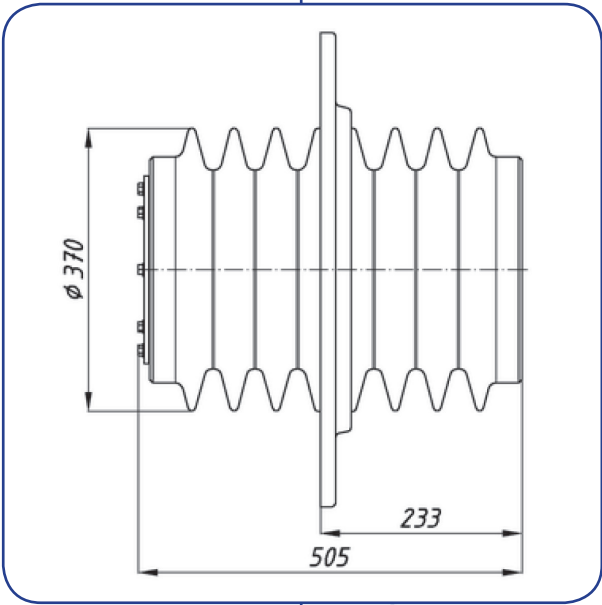
IP-24/3150-30 UHL2 IP-24/3150-30 T2



Indicator	IP-24/3150-30 UHL2	IP-24/3150-30 T2
Rated voltage, kV	24	24
Rated current, A	3150	3150
Minimum bending strength, kN	30	30
Construction height L, mm	505	505
Creepage distance, at least, cm	480	480
Insulating part diameter, mm	370	370
Weight, up to, kg	67,2	67,2

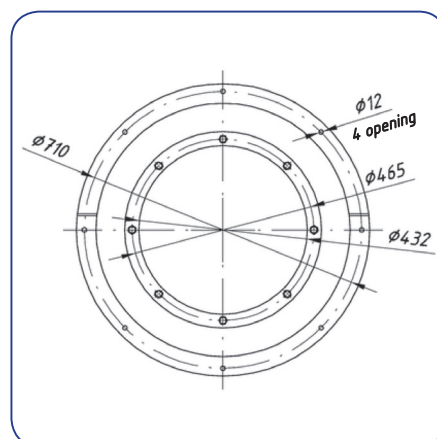
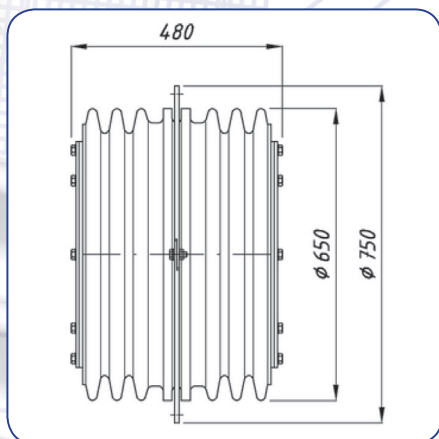


IP-27/5000-30 UHL2 IP-27/5000-30 T2



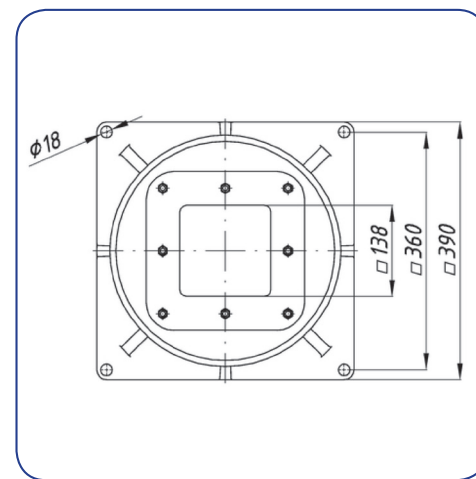
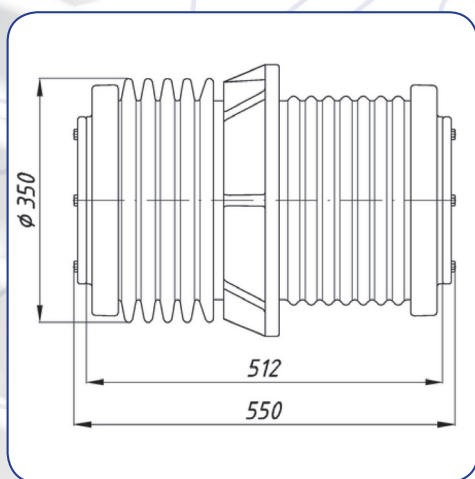
Indicator	IP-27/5000-30 UHL2	IP-27/5000-30 T2
Rated voltage, kV	27	27
Rated current, A	5000	5000
Minimum bending strength, kN	48	48
Construction height L, mm	505	505
Creepage distance, at least, cm	480	480
Insulating part diameter, mm	370	370
Weight, up to, kg	65	65

IP-20/16000 UHL2 IP-20/16000 T2



Indicator	IP-20/16000 UHL2	IP-20/16000 T2
Specific creepage distance, cm/kV	3,1	3,1
Rated voltage, kV	20	20
Rated current, A	16000	16000
Construction height L, mm	480	480
Insulating part diameter, mm	650	650
Weight, max, kg	130	130
Lightning impulse test voltage, kV	125	125

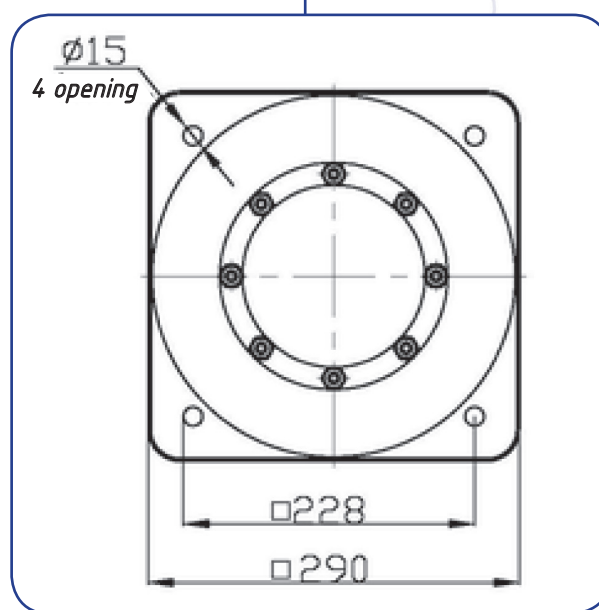
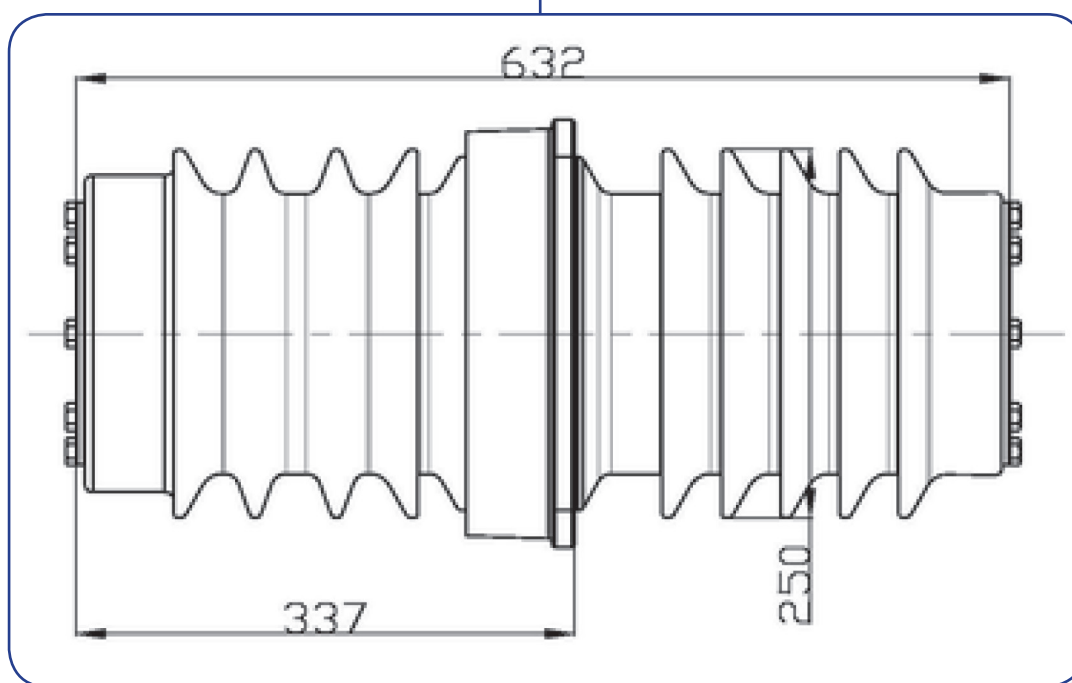
IP-10-4000-42,5 U2



Indicator	IP-10-4000-42,5 U2
Specific creepage distance, cm/kV	3,1
Rated voltage, kV	10
Rated current, A	4000
Minimum bending strength, kN	42,5
Construction height L, mm	550
Insulating part diameter, mm	350
Weight, max, kg	53
Lightning impulse test voltage, kV	80

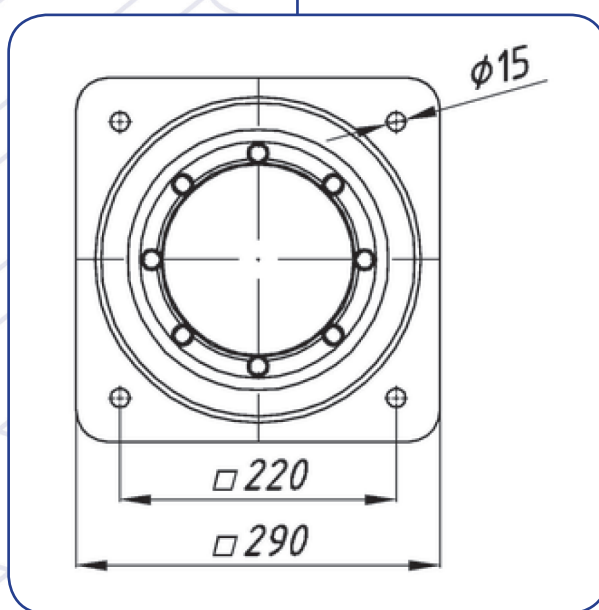
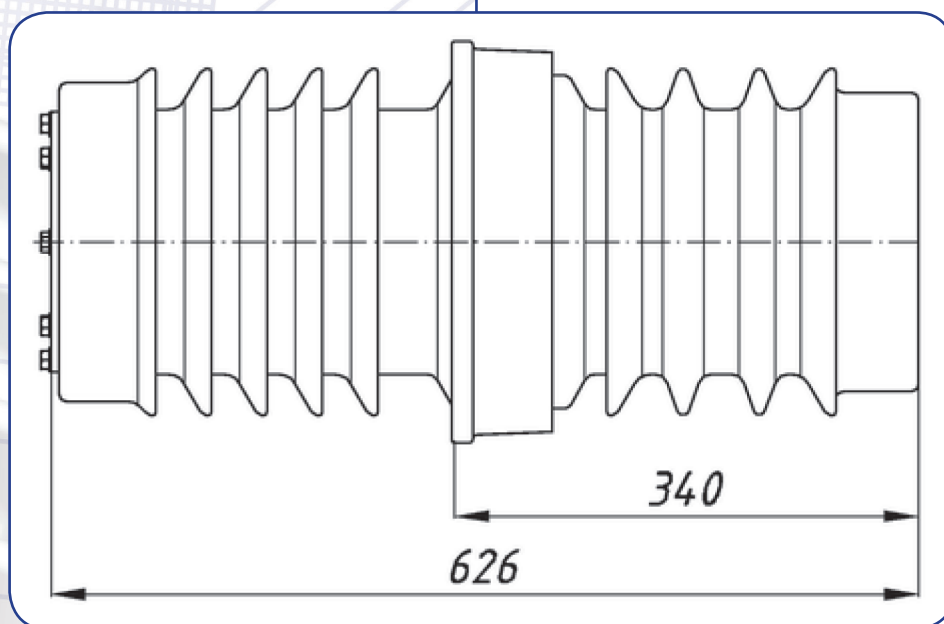


IP-20/5000-12,5 UHL1 IP-20/5000-12,5 T1



Indicator	IP-20/5000-12,5 UHL1	IP-20/5000-12,5 T1
Rated voltage, kV	20	20
Rated current, A	5000	5000
Minimum bending strength, kN	12,5	12,5
Construction height L, mm	632	632
Creepage distance, at least, cm	400	400
Insulating part diameter, mm	250	250
Weight, max, kg	31.0	31.0

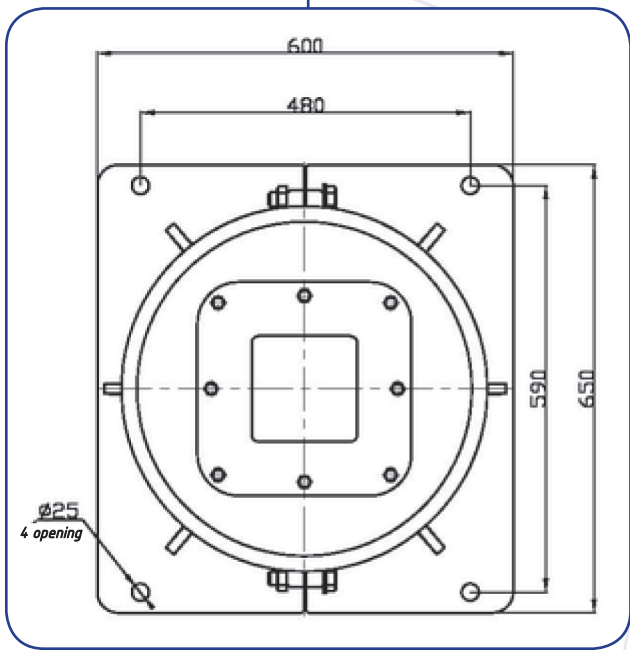
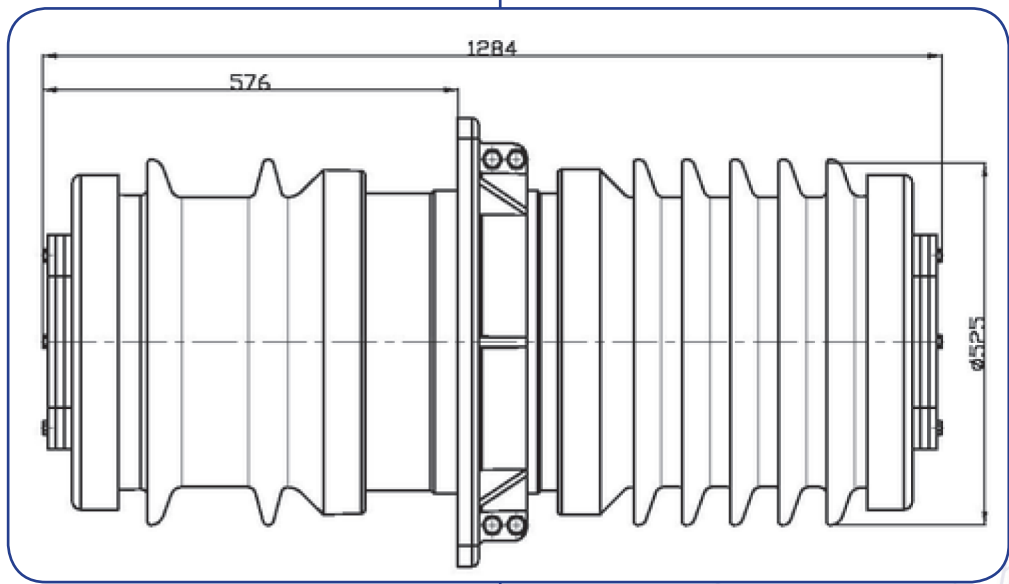
IP-20/5000-15 UHL1 IP-20/5000-15 T1



Indicator	IP-20/5000-15 UHL1	IP-20/5000-15 T1
Rated voltage, kV	20	20
Rated current, A	5000	5000
Minimum bending strength, kN	15	15
Construction height L, mm	626	626
Creepage distance, at least, cm	400	400
Insulating part diameter, mm	250	250
Weight, up to, kg	34,8	34,8



IP-35/10000-42,5 UHL1



Indicator	IP-35/10000-42,5 UHL1
Rated voltage, kV	35
Rated current, A	10000
Minimum bending strength, kN	42,5
Construction height L, mm	1284
Creepage distance, min, cm	
Insulating part diameter, mm	530
Weight, max, kg	222,6
Lightning impulse test voltage, kV	195



Pin-Type Post Insulators

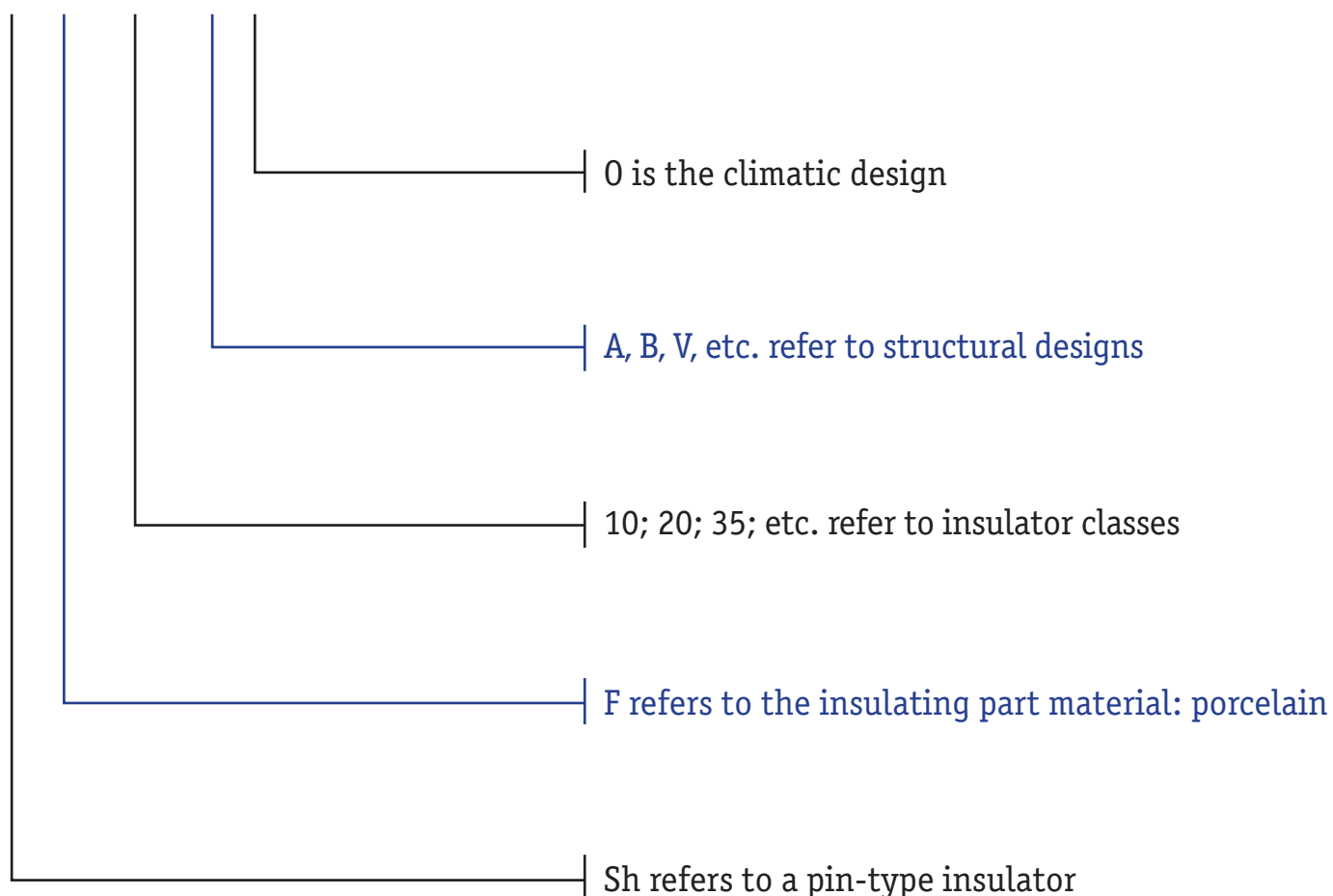
Insulator	Page
ShF 10 M0	30
ShF 20 M0	31
ShF 20 G0	32
ShF 20 U0	33
ShF 35 V	34

Applications:

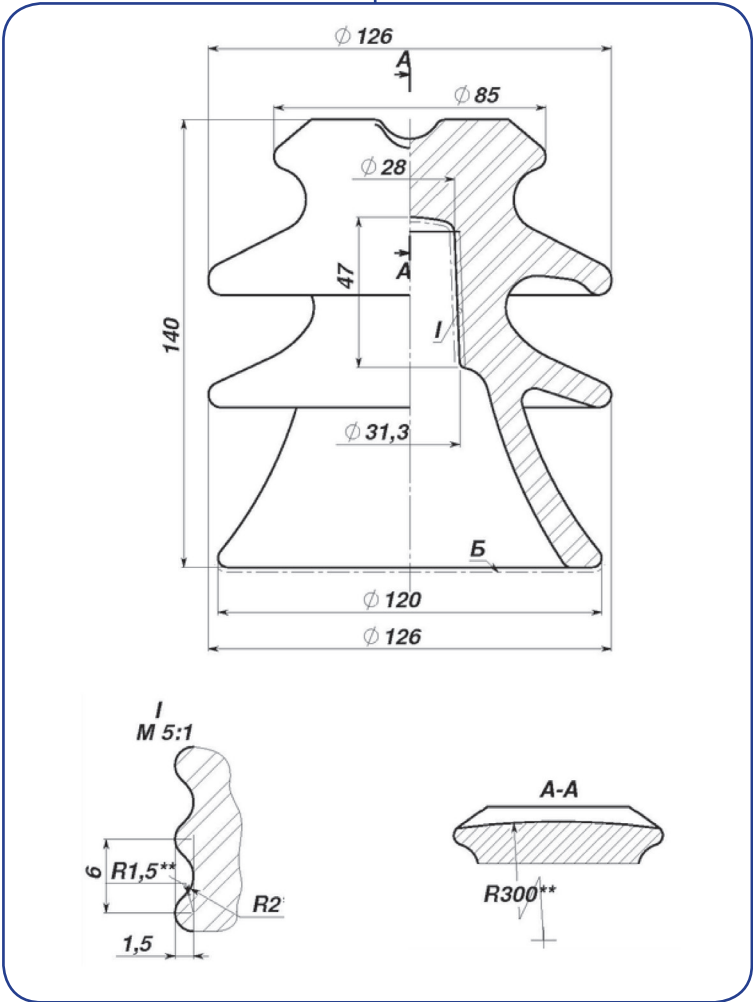
These insulators are used for insulation and fastening of wires on overhead power lines and in distribution systems of power plants and AC substations with voltage of 1 to 35 kV at up to 100 Hz at ambient temperatures of plus 50°C to minus 60°C.

Insulator Designation Legend:

ShF 20 U0

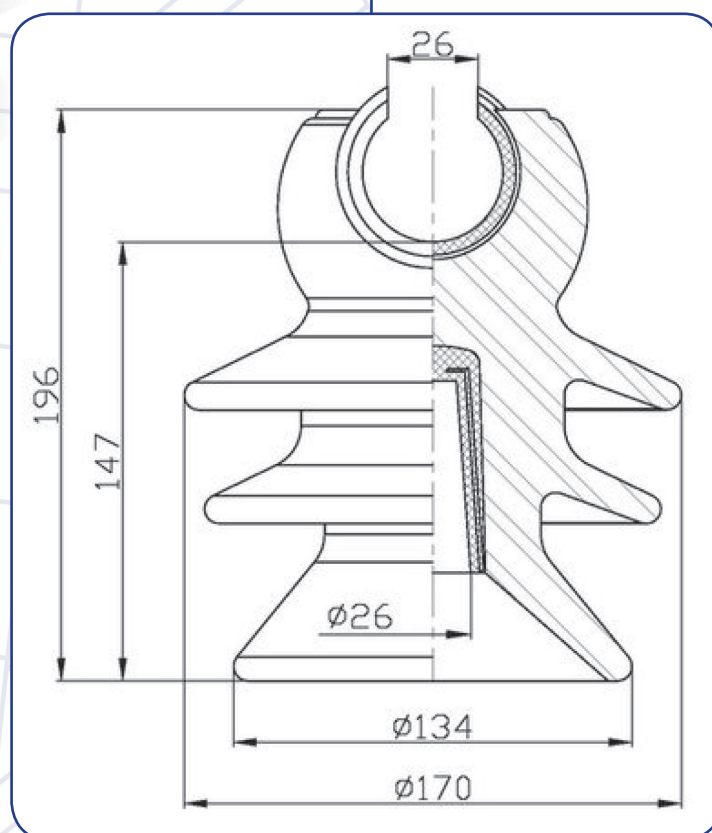


ShF 10 M0



Indicator	ShF 10 M0
Breakdown voltage, kV	120
Withstand voltage at 50 Hz, dry, kV	63
Withstand voltage at 50 Hz, wet, kV	32
Creepage distance, min, mm	260
Insulating part diameter, mm	126
Height, mm	140
Weight, max, kg	1,8

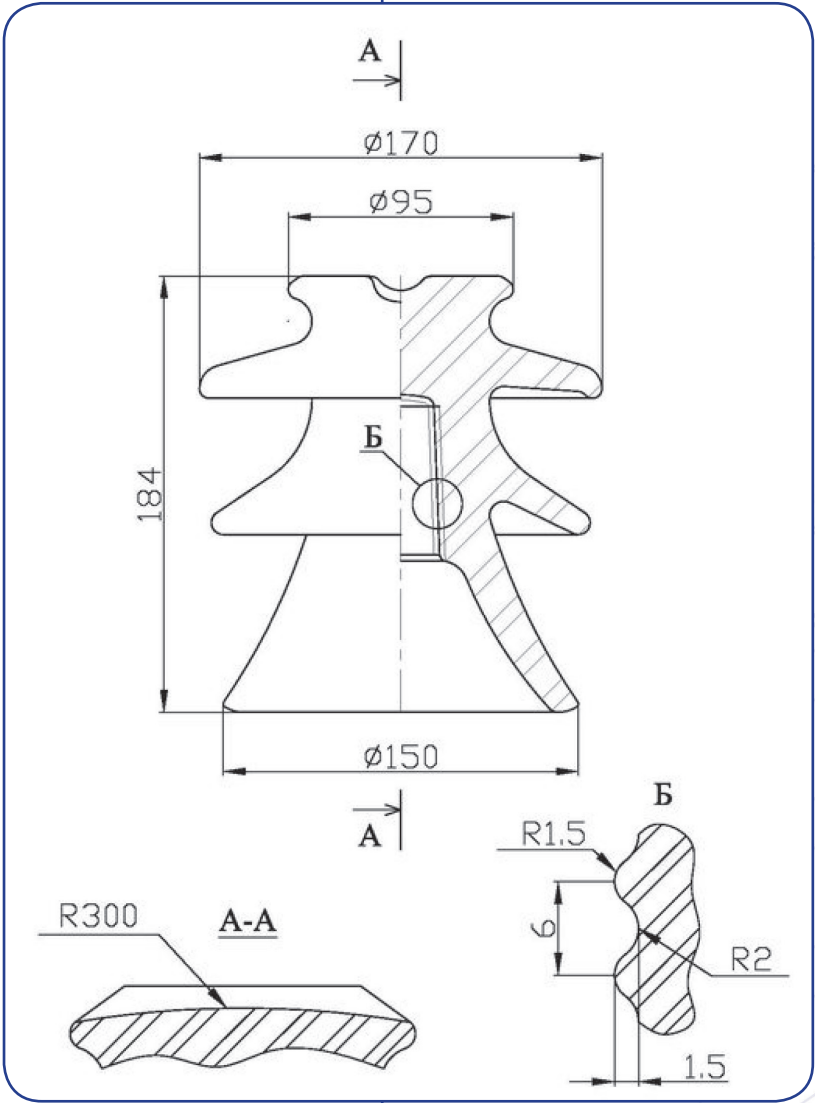
ShF 20 M0



Indicator	ShF 20 M0
Breakdown voltage, kV	160
Withstand voltage at 50 Hz, dry, kV	85
Withstand voltage at 50 Hz, wet, kV	45
Creepage distance, min, mm	325
Insulating part diameter, mm	170
Height, mm	196
Weight, max, kg	3,4

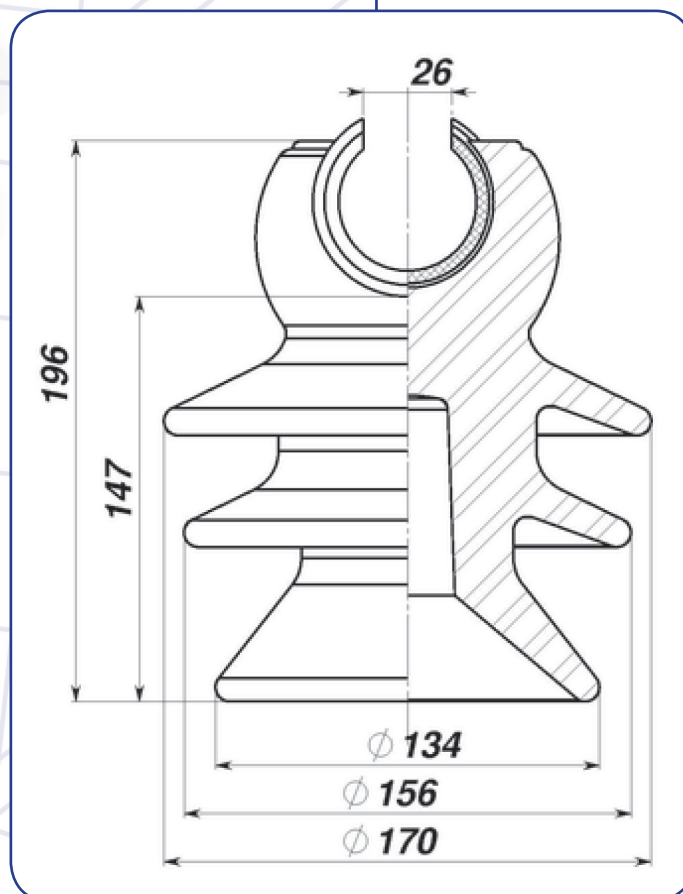


ShF 20 G0



Indicator	ShF 20 G0
Breakdown voltage, kV	160
Withstand voltage at 50 Hz, dry, kV	85
Withstand voltage at 50 Hz, wet, kV	55
Creepage distance, min, mm	400
Insulating part diameter, mm	170
Height, mm	184
Weight, max, kg	3,3

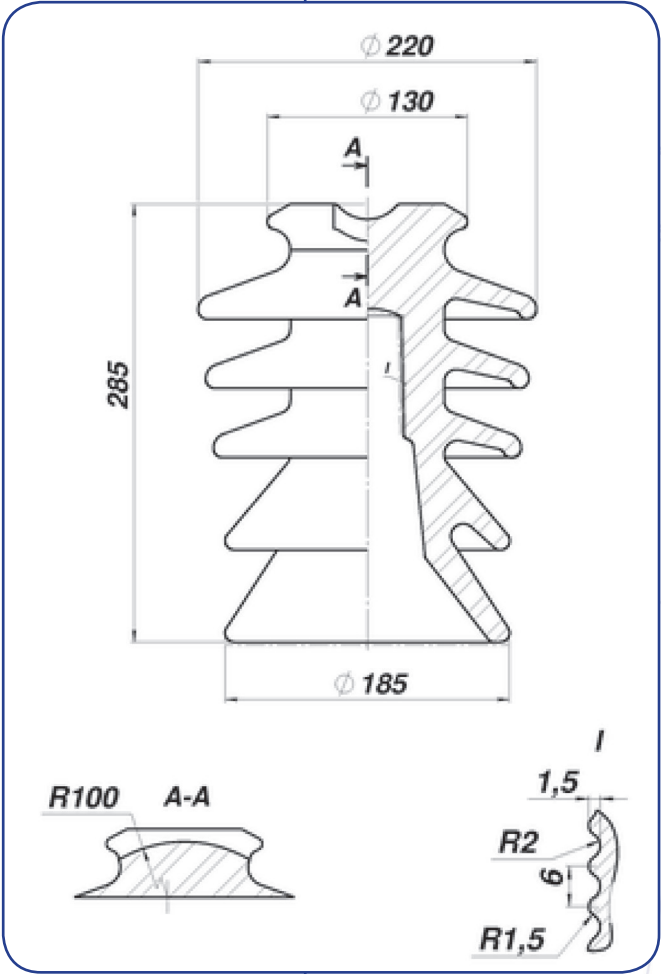
ShF 20 U0



Indicator	ShF 20 U0
Breakdown voltage, kV	160
Withstand voltage at 50 Hz, dry, kV	85
Withstand voltage at 50 Hz, wet, kV	45
Creepage distance, min, mm	325
Insulating part diameter, mm	170
Height, mm	196
Weight, max, kg	3,3



ShF 35 V



Indicator	ShF 35 V
Breakdown voltage, kV	200
Withstand voltage at 50 Hz, dry, kV	90
Withstand voltage at 50 Hz, wet, kV	80
Creepage distance, min, mm	780
Insulating part diameter, mm	220
Height, mm	285
Weight, max, kg	8,2
Polyethylene insert	

Indoor Post Insulators

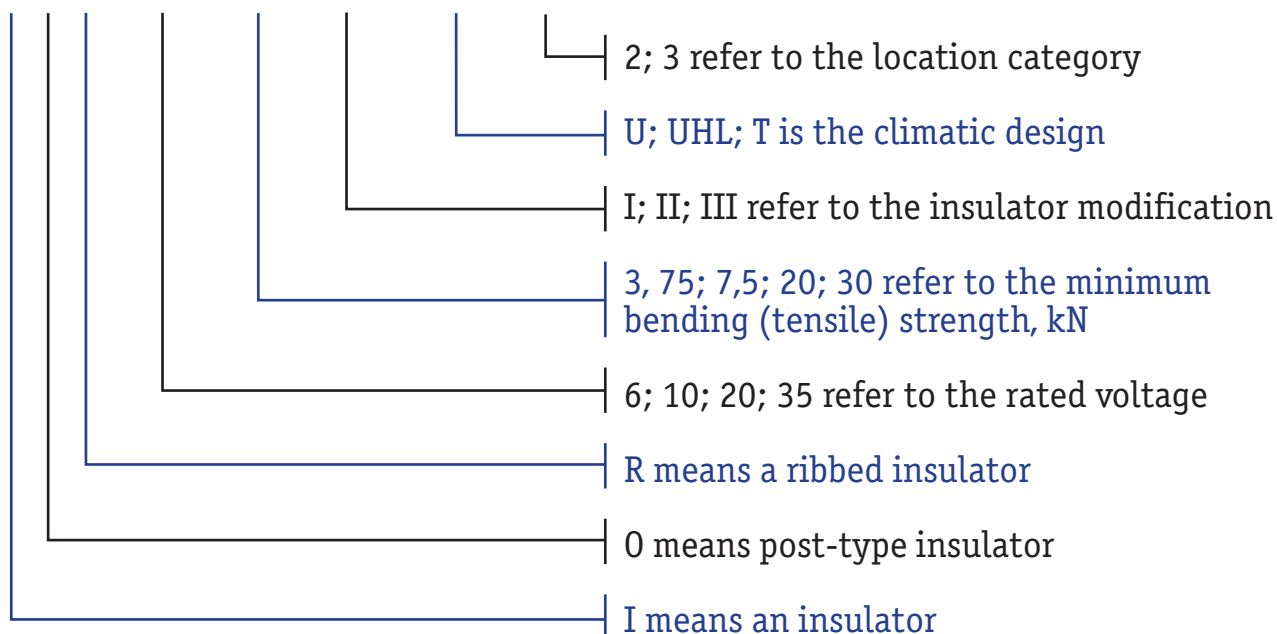
Insulator	Page	Insulator	Page
IO-1-2.5 I U3	37	IOR-20-8 II UHL2	38
IO-1-2.5 I T3	37	IOR-20-8 II T2	38
IO-6-3.75 U3	36	IOR-20-30 UHL2	39
IO-6-3.75 I U3	36	IOR-20-30 T2	39
IO-6-3.75 II U3	36	IOR-24-8 UHL2	38
IO-10-3.75 U3	36	IOR-24-8 T2	38
IO-10-3.75 I U3	36	IOR-27-8 UHL2	38
IO-10-3.75 II U3	36	IOR-27-8 T2	38
IO-10-7.5 I U3	41	IORF-20-8.0 I T2	39
IO-10-7.5 II U3	41	IORF-20-8.0 II UHL2	39
IOR-10-3.75 UHL2	36	IORF-20-8.0 I UHL2	39
IOR-10-7.5 III UHL2	37	IORF-20-8.0 II T2	39
IOR-10-7.5 III T2	37	IORF-20-8.0 UHL2 (M16)	39
IO-10-20 U3	38	IORF-20-8.0 T2 (M16)	39
IOR-20-7.5 U3	37	IORF-24-8.0 T2	39
IOR-20-7.5 T3	37	IORF-24-8.0 UHL2	39
IOR-20-8 I UHL2	38	IR-24-8 UHL2	40
IOR-20-8 I T2	38	IRM-24-8 UHL2	40

Applications

These insulators are designed for insulation and fastening of live parts in electrical equipment and distribution devices.

Insulator Designation Legend:

IOR-10-7,5 III UHL 2



IOR-10-3.75 UHL2
IO-10-3.75 U3
IO-6-3.75 U3
IO-6-3.75 I U3

IO-6-3.75 II U3
IO-10-3,75 I U3
IO-10-3,75 II U3

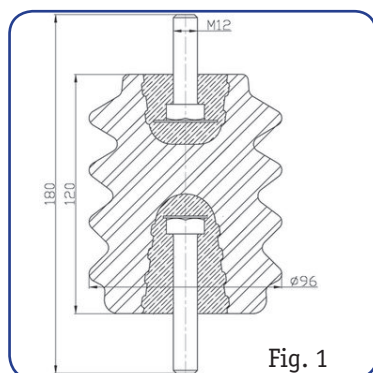


Fig. 1

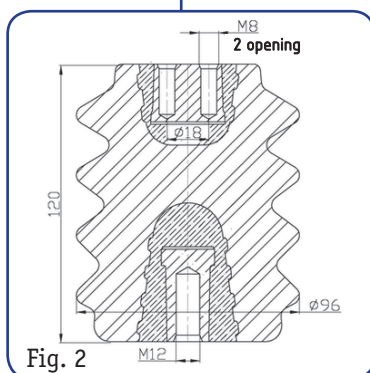


Fig. 2

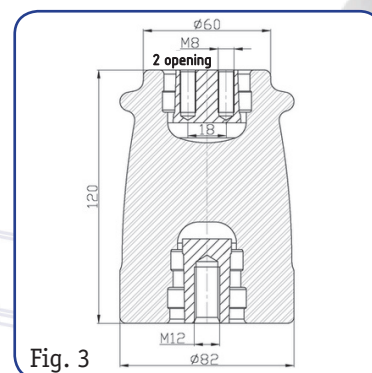


Fig. 3

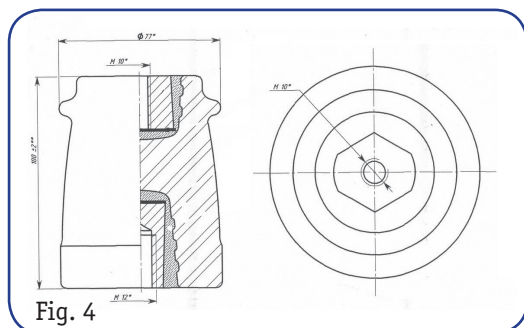


Fig. 4

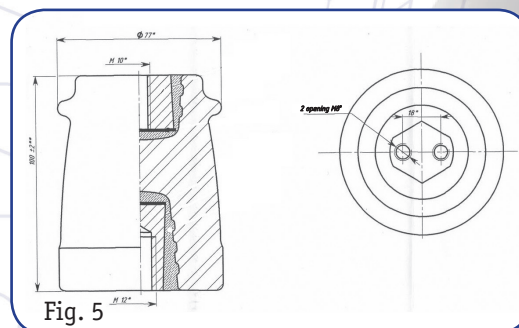


Fig. 5

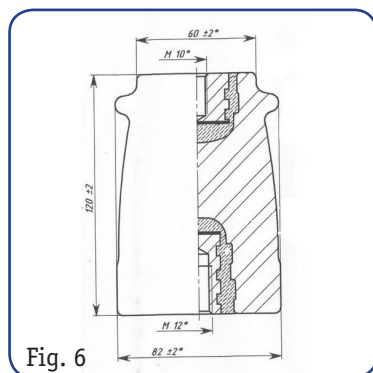


Fig. 6

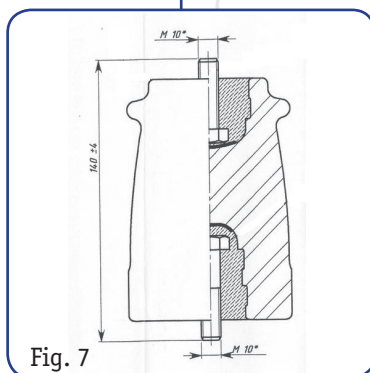


Fig. 7

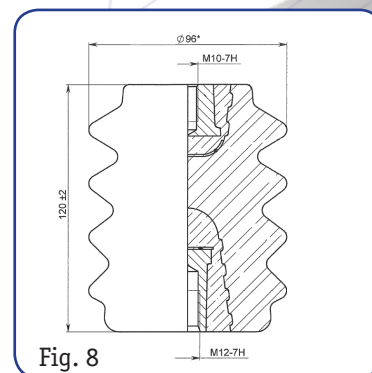
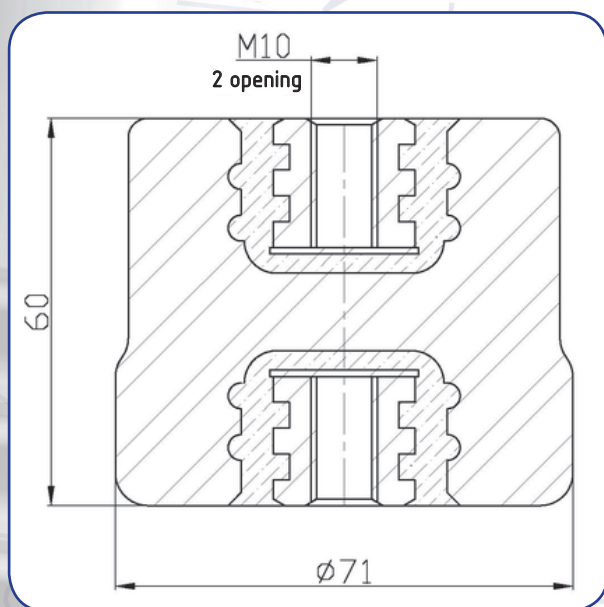


Fig. 8

Indicator	IOR-10-3.75 UHL2	IO-10-3.75 U3	IO-6-3.75 U3	IO-6-3.75 I U3	IO-6-3.75 II U3	IO-10-3,75 I U3	IO-10-3,75 I U3	IO-10-3,75 II U3
Rated voltage, kV	10	10	6	6	6	10	10	10
Minimum bending strength, kN	3.68	3.68	3.68	3.75	3.75	3.75	3.75	3.75
Construction height, mm	120	120	120	100	100	120	120	120
Insulating part diameter, mm	96	82	226	77	77	82	82	96
Weight, max, kg	1.6	1.6	1.4	1.1	1.1	1.4	1.4	1.6
Lightning impulse test voltage, kV	80	80	80	80	80	80	80	80
Fig.	1, 2	3	3	4	5	6	7	8



IO-1-2,5 I U3

IO-1-2,5 I T3

Indicator	IO-1-2,5 I U3	IO-1-2,5 I T3
Rated voltage, kV	1	1
Minimum bending strength, kN	2,5	2,5
Construction height, mm	60	60
Insulating part diameter, mm	71	71
Weight, max, kg	1,4	1,4

IOR-10-7,5 III UHL2

IOR-10-7,5 III T2

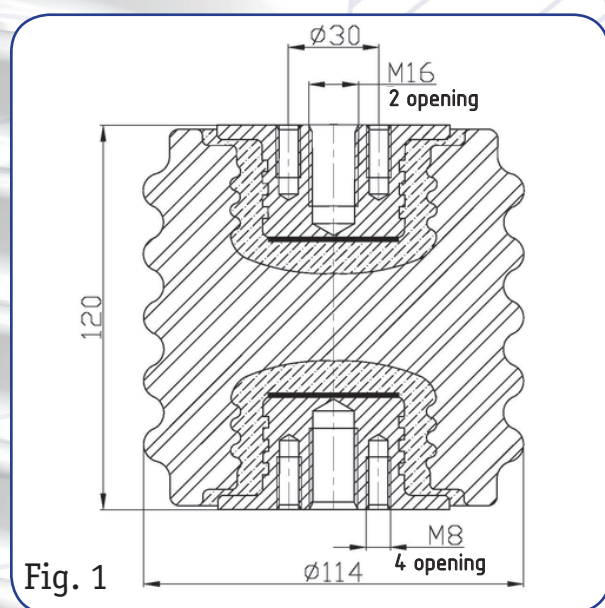


Fig. 1

IOR-20-7,5 U3

IOR-20-7,5 T3

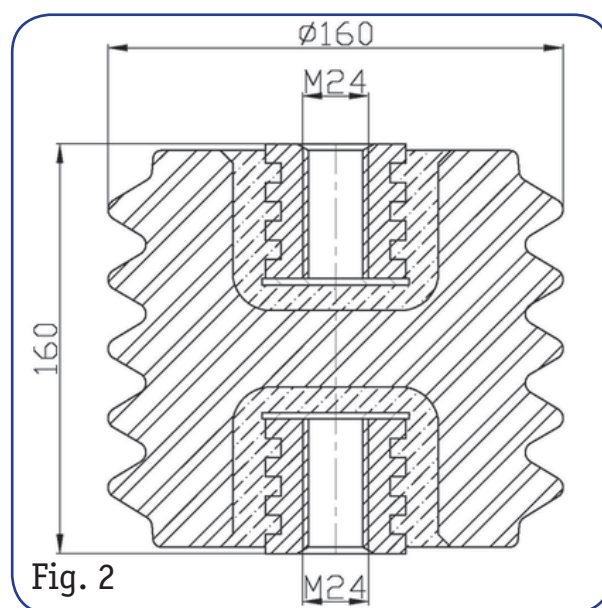
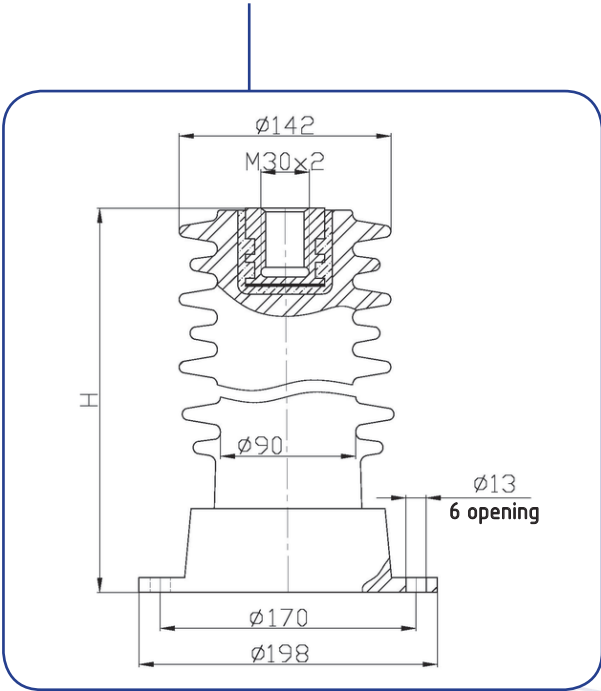


Fig. 2

Indicator	IOR-10-7,5 III UHL2	IOR-10-7,5 III T2	IOR-20-7,5 U3	IOR-20-7,5 T3
Rated voltage, kV	10	10	20	20
Minimum bending strength, kN	7,5	7,5	7,5	7,5
Construction height H, mm	120	120	160	160
Insulating part diameter, mm	114	114	160	160
Weight, max, kg	3	3	6	6
Lightning impulse test voltage, kV	80	80	125	125
Fig.	1	1	2	2

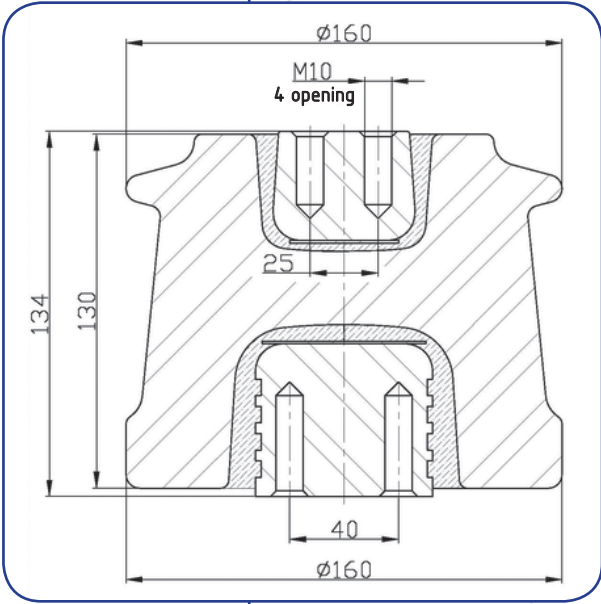


IOR-20-8 I UHL2
IOR-20-8 I T2
IOR-20-8 II UHL2
IOR-20-8 II T2
IOR-24-8 UHL2
IOR-24-8 T2
IOR-27-8 UHL2
IOR-27-8 T2

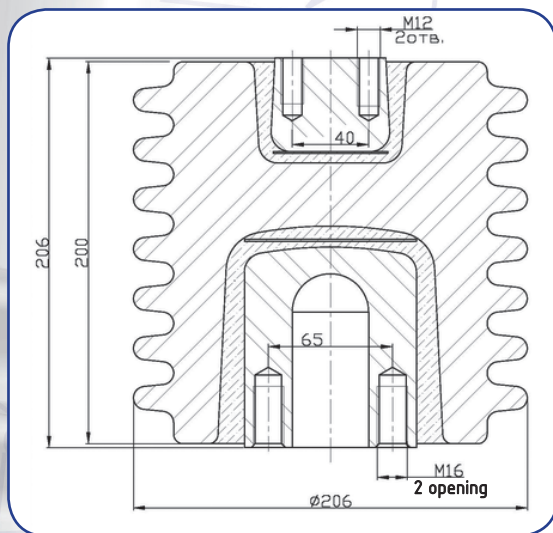


Indicator	IOR-20-8 I UHL2,T2	IOR-20-8 II UHL2,T2	IOR-24-8 UHL2,T2	IOR-27-8 UHL2,T2
Rated voltage, kV	20	20	24	27
Minimum bending strength, kN	8	8	8	8
Construction height L, mm	272	232	302	352
Insulating part diameter,mm	142	142	142	142
Creepage distance, min, mm	550	450	650	690
Weight, max, kg	8,6	7,6	9,5	10,5

IO-10-20 U3



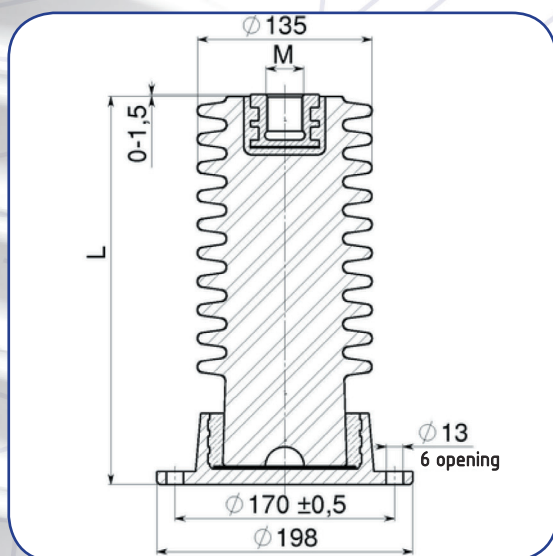
Indicator	IO-10-20 U3
Rated voltage, kV	10
Minimum bending strength, kN	20
Construction height, mm	134
Insulating part diameter, mm	160
Weight, max, kg	6,5
Lightning impulse test voltage, kV	80



IOR-20-30 UHL2

IOR-20-30 T2

Indicator	IOR-20-30 UHL2	IOR-20-30 T2
Rated voltage, kV	20	20
Minimum bending strength, kN	30	30
Construction height, mm	206	206
Creepage distance, min, mm	400	400
Insulating part diameter, mm	206	206
Weight, max, kg	16	16
Lightning impulse test voltage, kV	125	125



IORF-20-8,0 I UHL2,T2

IORF-20-8,0 II UHL2,T2

IORF-24-8,0 UHL2,T2

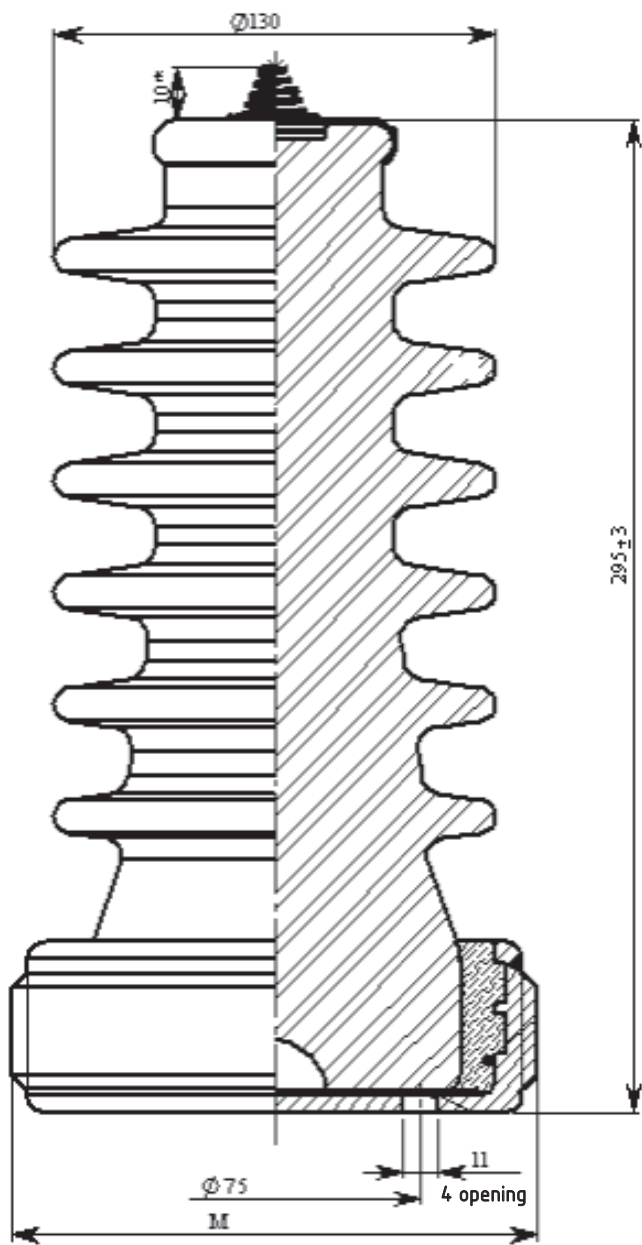
IORF-20-8,0 UHL2,T2 (M16)

Indicator	IORF-20-8,0 I UHL2,T2	IORF-20-8,0 II UHL2,T2	IORF-24-8,0 UHL2,T2	IORF-20-8,0 UHL2,T2 (M16)
Rated voltage, kV	20	20	24	20
Minimum bending strength, kN	8	8	8	8
Construction height L, mm	232	272	302	232
Insulating part diameter, mm	135	135	135	135
Weight, max, kg	6,3	7	8	4,4
Lightning impulse test voltage, kV	125	125	150	125
Creepage distance, min, mm	400	500	550	400
Internal thread of upper sleeve M	M30x2-7N	M30x2-7N	M30x2-7N	M16x2-7N



IR-24-8 UHL2

IRM-24-8 UHL2



Indicator	IR-24-8 UHL2	IRM-24-8
Rated voltage, kV	24	24
Minimum bending strength, kN	8	8
Construction height, mm	295	295
Creepage distance, min, mm	420	420
Insulating part diameter, mm	130	130
Weight, max, kg	7	7
Lightning impulse test voltage, kV	150	150
Lower flange thread M	145x6	155x6



IO-10-7.5 I U3 IO-10-7.5 II U3

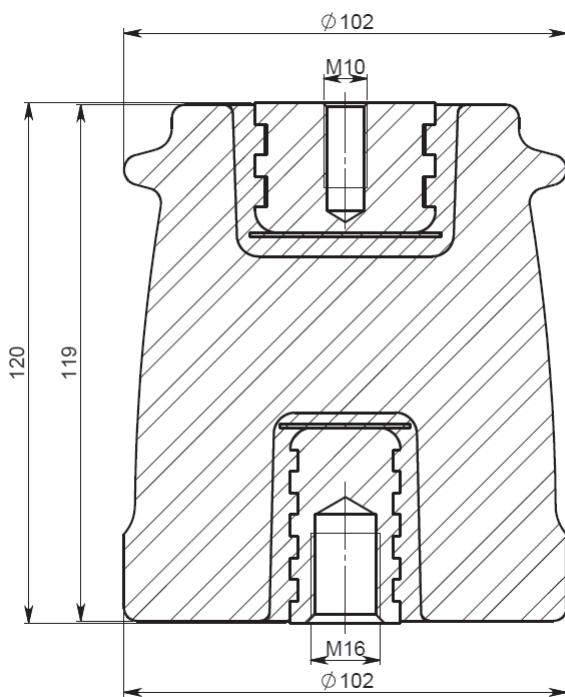


Fig. 1

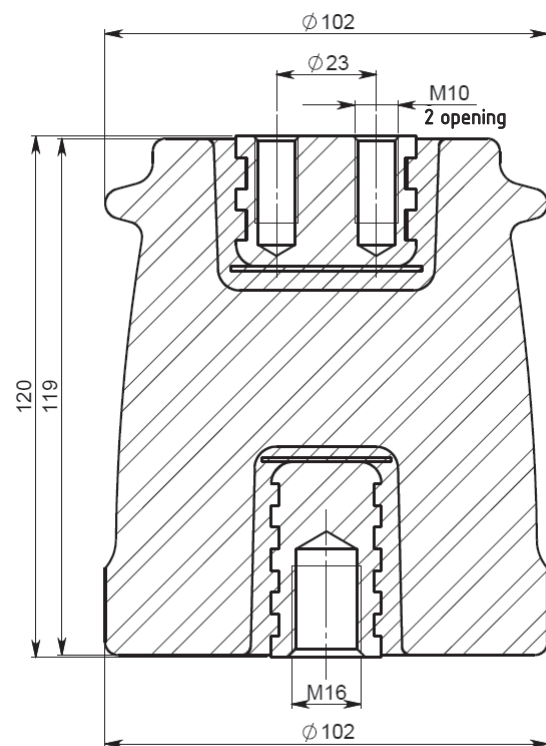


Fig. 2

Indicator	IO-10-7.5 I U3	IO-10-7.5 II U3
Rated voltage, kV	10	10
Minimum bending strength, kN	3.75	3.75
Construction height, mm	120	120
Insulating part diameter, mm	102	102
Weight, max, kg	2.3	2.3
Lightning impulse test voltage	80	80
Fig.	1	2



Covers

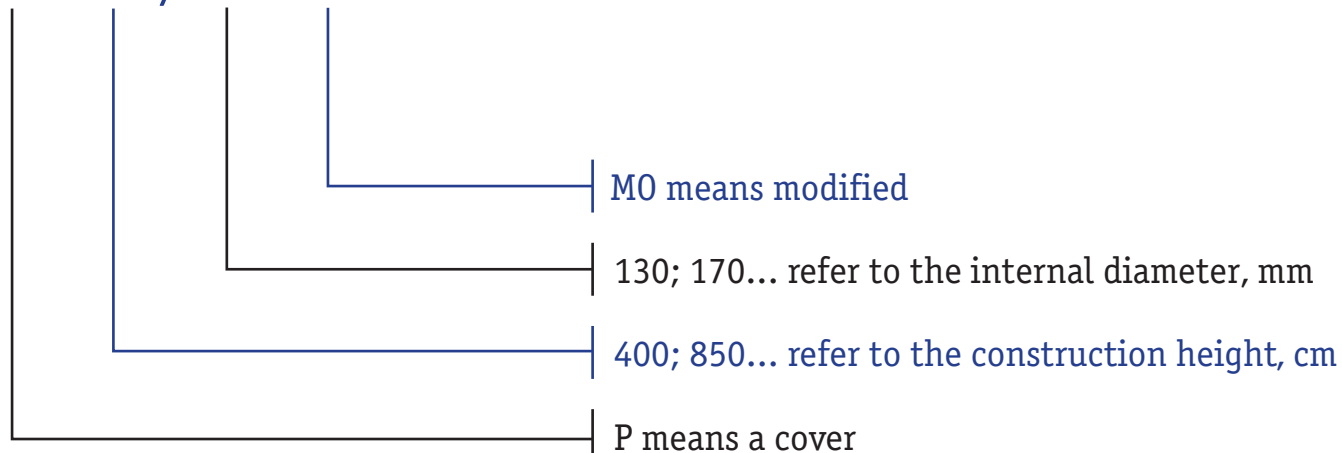
Insulator	Page	Insulator	Page
P 400/130 01	44	P 1430-300	55
P 400/170	44	P-1440-450 III UHL1	54
P 400/265	44	P 1475/210-10	47
P 620/110-30	46	P 2025/210-10	47
P 620/180-30	46	PKSA 1270/100 (285)	52
P 850/130 01	45	PKSA 1270/100 (315)	52
P 930/180-30	46	PKSA 1270/100 (395)	52
P 960/180-30	46	PKSA 1290/170 (285)	52
P 1000/110-10	47	PKSA 1290/170 (315)	52
P 1030/180-20	47	PKSA 1290/170 (395)	52
P 1130/170 M0	45	PKSA 1400/210	52
P 1130-198	55	PKSA 1680/210	52
P 1160-133 II	55	OPN-35	52
P 1160-133 III	55	OPN-110	51
P 1200/110-40	47	OPN-F-27.5 KS	49
P 1240-450	54	PFR-2M	45
P 1340-130	53	PM Vo-110 01	55
P 1380/180-30	47	MSA-3	48
P 1400/265	48		

Applications:

Covers are used for coupling capacitors, oil and low-oil circuit breakers, voltage transformers, current transformers, high-voltage bushings and other purposes.

Insulator Designation Legend:

P 1130/170 M0



Applications:

Surge arresters are designed to protect AC electrical equipment with wiring with effectively earthed neutrals from lightning and switching overvoltage.

Insulator Designation Legend:

OPN-F-27,5 KS

KS is the modification type

27.5; 35... refer to the insulator class
refer to the rated voltage, kV

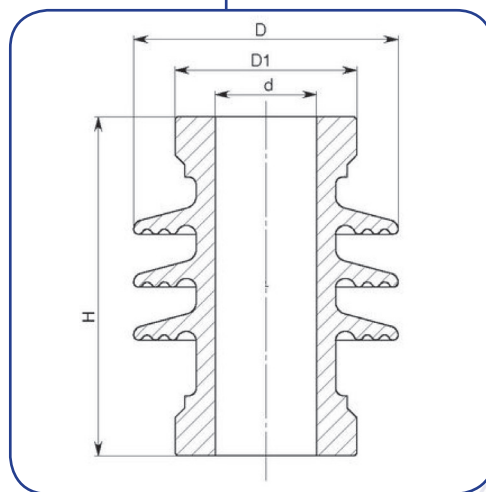
F refers to the insulating part material:
porcelain

OPN is a surge arrester



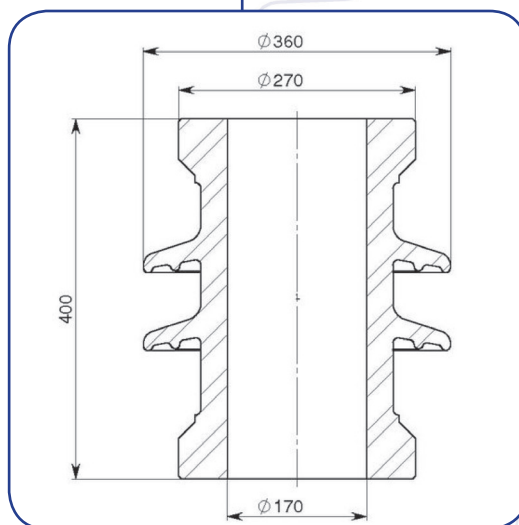
P 400/130 01

P 400/265



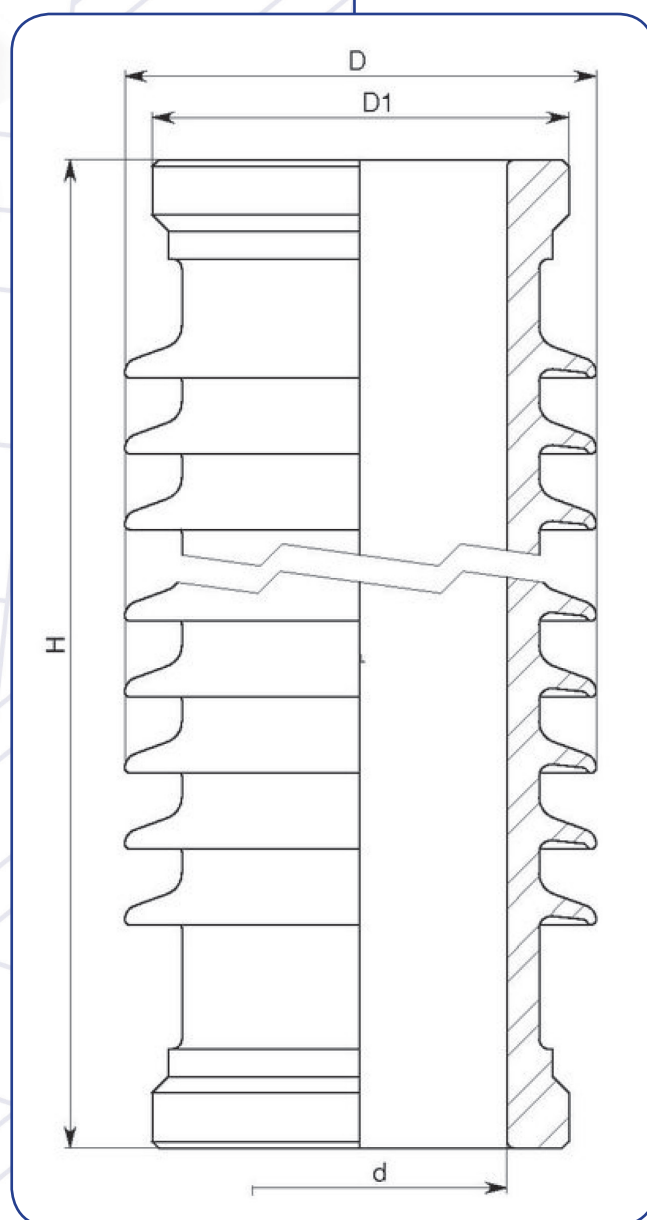
Indicator	P 400/130 01	P 400/265
Creepage distance, cm	650	460
Height H, mm	400	400
Insulating part outer diameter D, mm	325	475
Diameter D1, mm	220	370
Inner diameter d, mm	130	265
Weight, kg	22	53

P 400/170



Indicator	P 400/170
Creepage distance, cm	460
Height, mm	400
Insulating part outer diameter, mm	360
Insulating part inner diameter, mm	170
Weight, max, kg	30

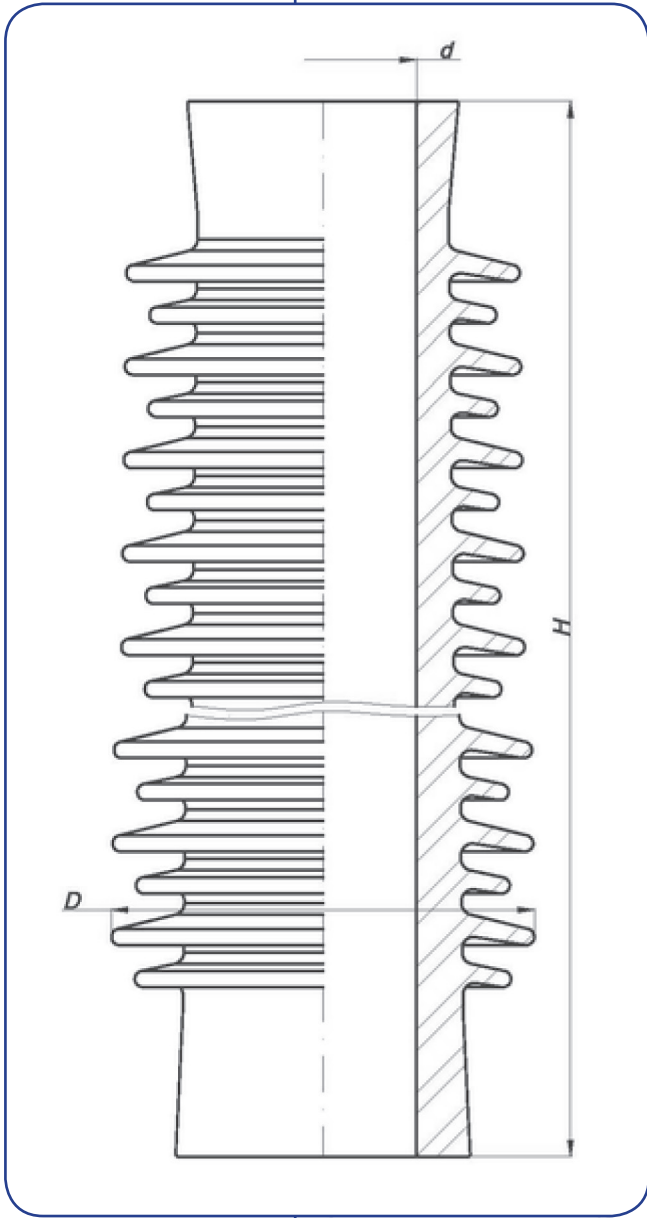
PFR-2M
P 850/130 01
P 1130/170 M0



Indicator	PFR-2M	P 850/130 01	P 1130/170 M0
Creepage distance, cm	1080	1550	2100
Height H, mm	760	850	1130
Insulating part outer diameter D, mm	370	279	360
Diameter D1, mm	290	220	270
Inner diameter d, mm	240	130	170
Weight, kg	56	38	90

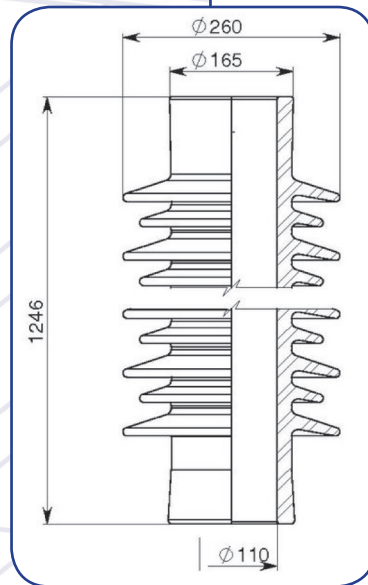


P 620/180-30
P 620/110-30
P 960/180-30
P 930/180-30



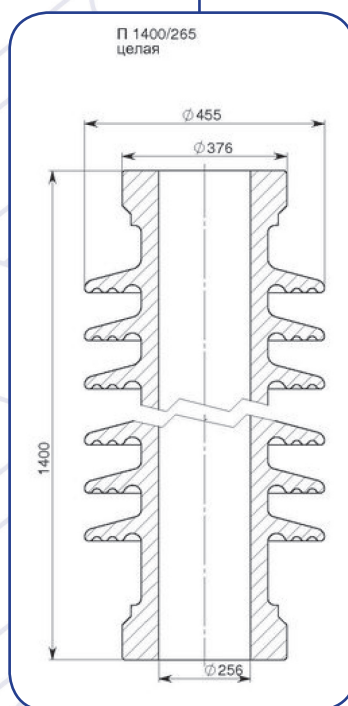
Indicator	P 620/180-30	P 620/110-30	P 960/180-30	P 930/180-30
Specific creepage distance, cm/kV	3,1	3,1	3,1	3,1
Height, H, mm	620	620	960	930
Insulating part outer diameter, D, mm	365	295	360	360
Insulating part inner diameter, d, mm	180	110	180	180
Weight, max, kg	47	37	81	80

P 930/180-30
P 1000/110-10
P 1030/180-20
P 1200/110-40



Indicator	P 930/180-30	P 1000/110-10	P 1030/180-20	P 1200/110-40
Specific creepage distance, cm/kV	3,1	3,1	3,1	3,1
Height, H, mm	930	1000	1030	1200
Insulating part outer diameter, D, mm	360	290	355	295
Insulating part inner diameter, d, mm	180	110	180	110
Weight, max, kg	80	54	78	70

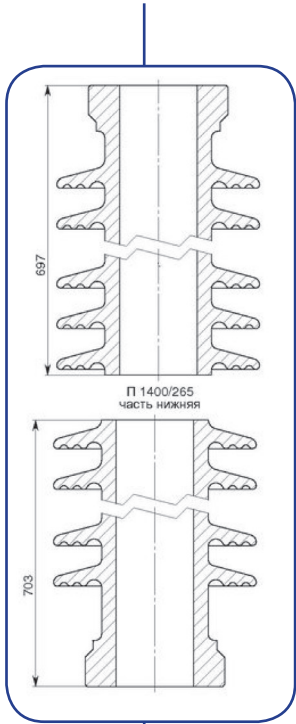
P 1380/180-30
P 1475/210-10
P 2025/210-10



Indicator	P 1380/180-30	P 1475/210-10	P 2025/210-10
Specific creepage distance, cm/kV	3,1	3,1	3,1
Height, H, mm	1380	1475	2025
Insulating part outer diameter, D, mm	365	415	415
Insulating part inner diameter, d, mm	180	210	210
Weight, max, kg	104	134	193,5

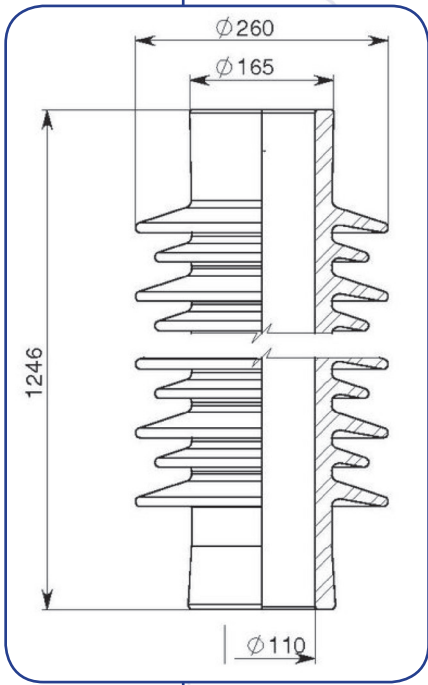


P 1400/265



Indicator	P 1400/265
Creepage distance, at least, cm	3500
Height, mm	1400
Insulating part outer diameter, mm	455
Insulating part inner diameter, mm	265
Weight, max, kg	170

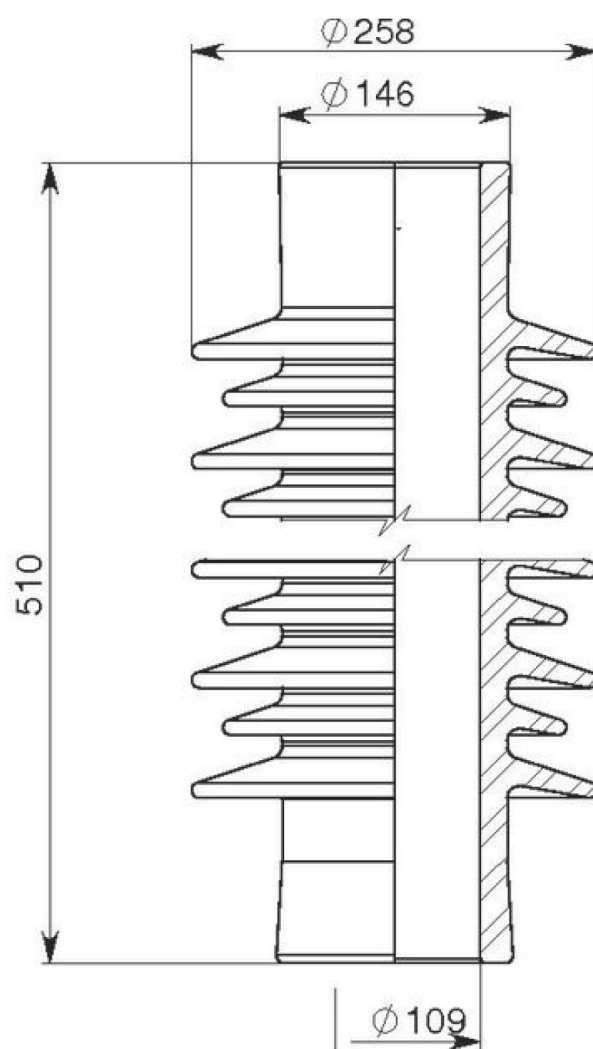
MSA-3



Indicator	MSA-3
Creepage distance, at least, cm	3610
Height, mm	1246
Insulating part outer diameter, mm	260
Insulating part inner diameter, mm	110
Weight, max, kg	60
Pollution resistance rating	IV

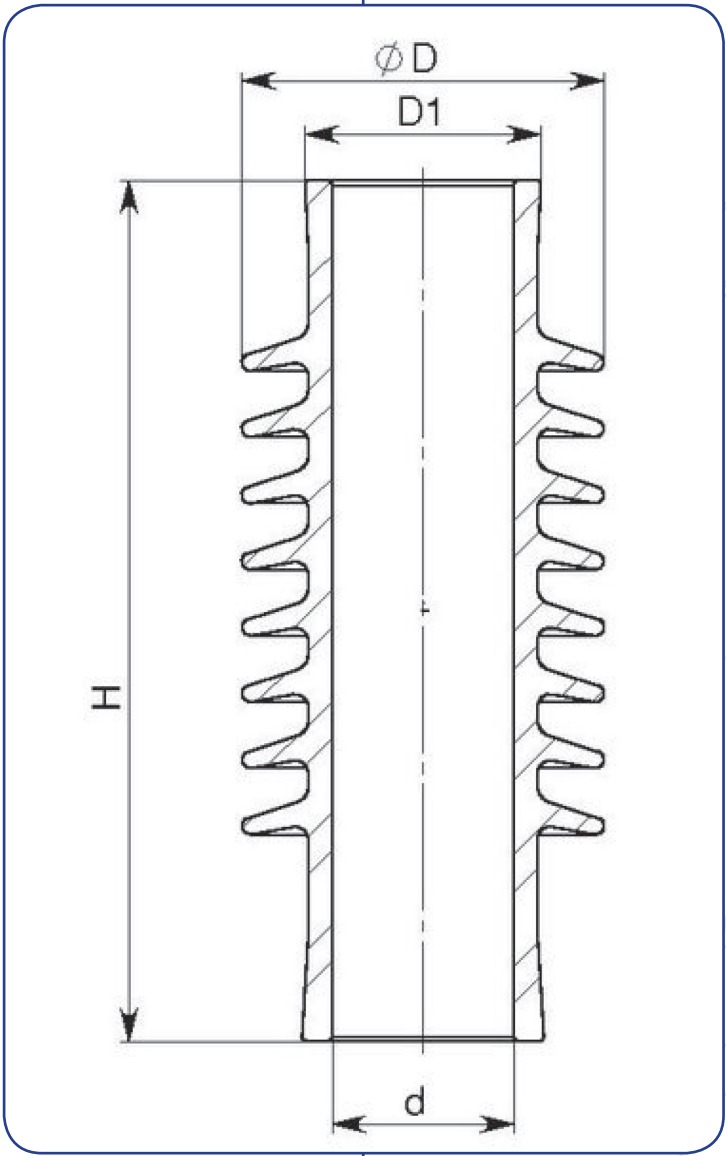


OPN-F-27.5 KS



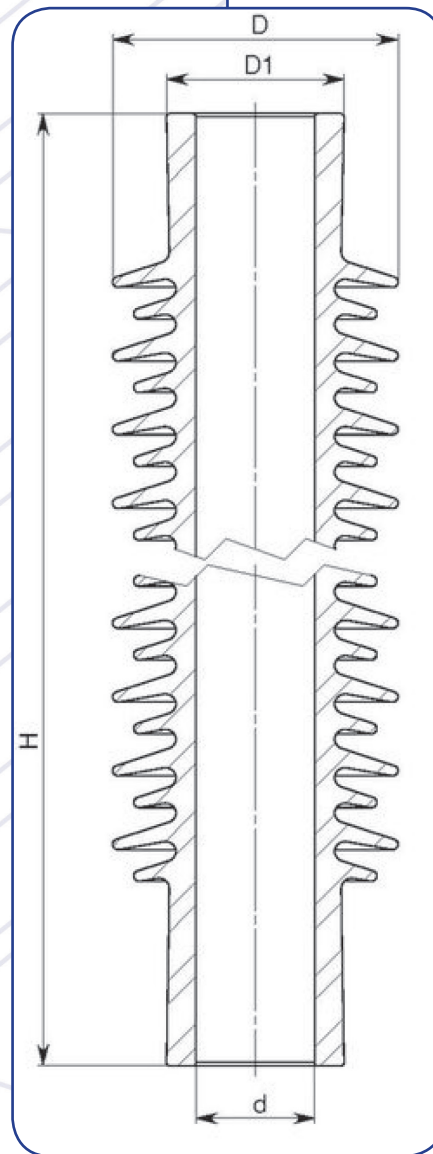
Indicator	OPN-F-27.5 KS
Specific creepage distance, cm/kV	3,1
Rated voltage, kV	27,5
Height, mm	510
Insulating part outer diameter, mm	258
Insulating part inner diameter, mm	109
Weight, max, kg	16





Indicator	OPN-35
Specific creepage distance, cm/kV	3,1
Rated voltage, kV	35
Height, mm	520
Insulating part outer diameter, mm	218
Insulating part inner diameter, mm	109
Weight, max, kg	13

OPN-110

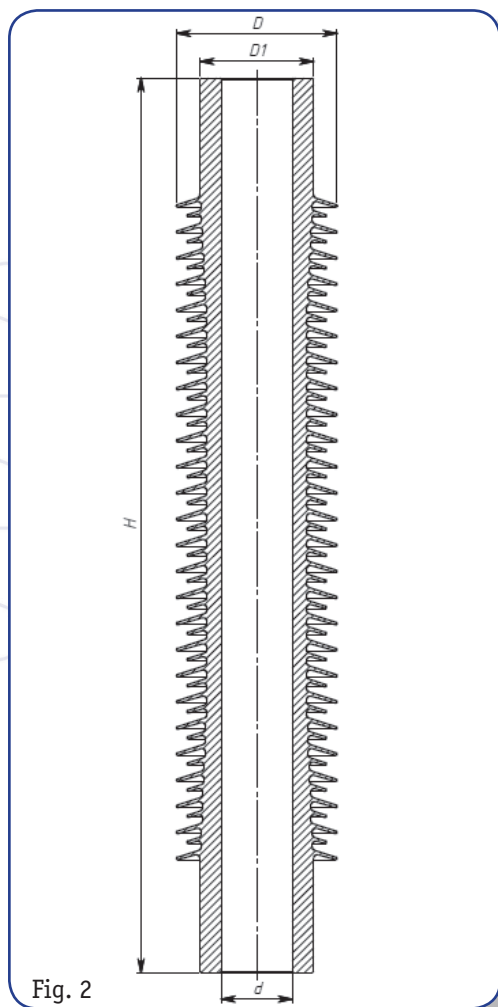
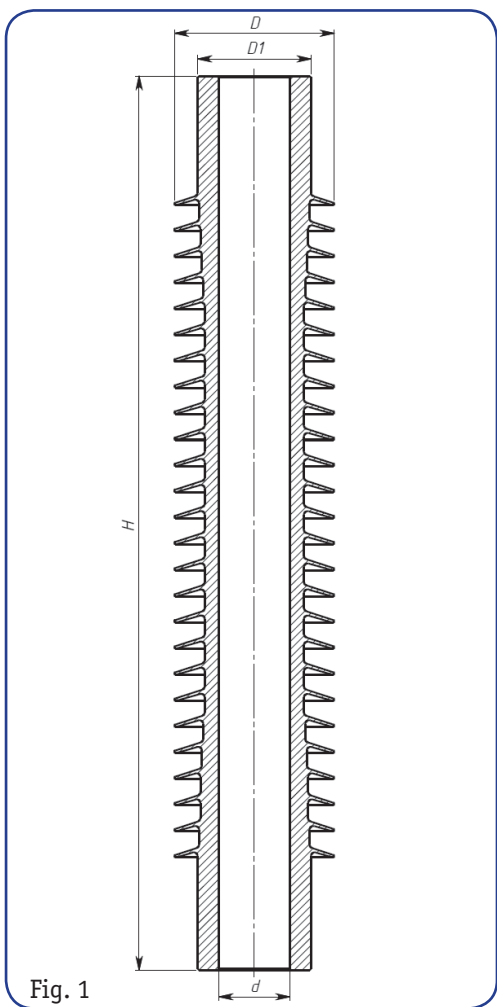


Indicator	OPN-110
Rated voltage, kV	110
Creepage distance, mm	460
Height, mm	1000
Insulating part outer diameter, mm	270
Insulating part inner diameter, mm	112
Weight, max, kg	53
Specific creepage distance, cm/kV	3,1

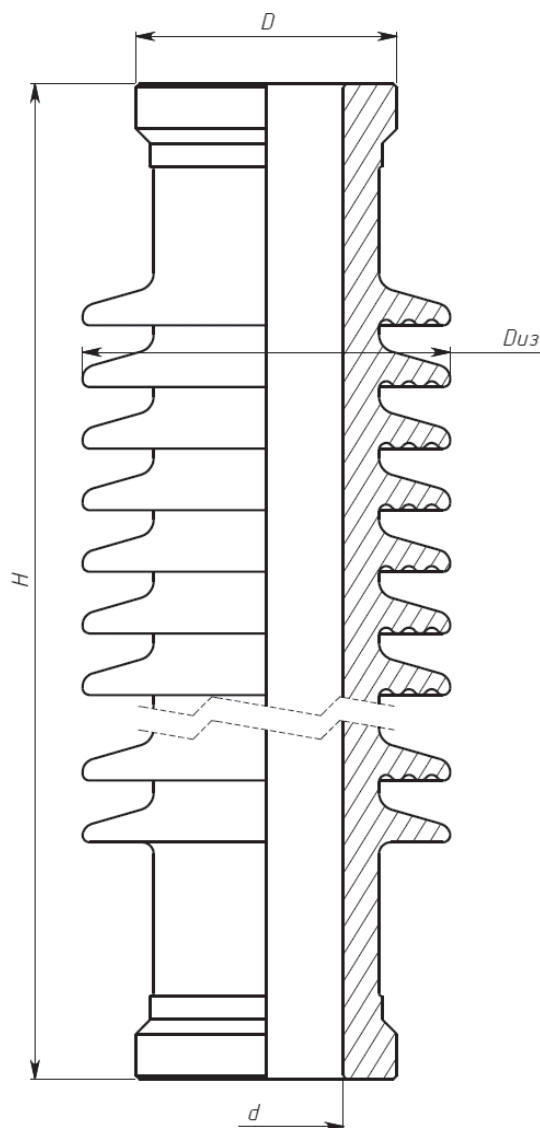


PKSA 1270/100 (285)
 PKSA 1270/100 (315)
 PKSA 1270/100 (395)
 PKSA 1400/210

PKSA 1680/210
 PKSA 1290/170 (285)
 PKSA 1290/170 (315)
 PKSA 1290/170 (395)



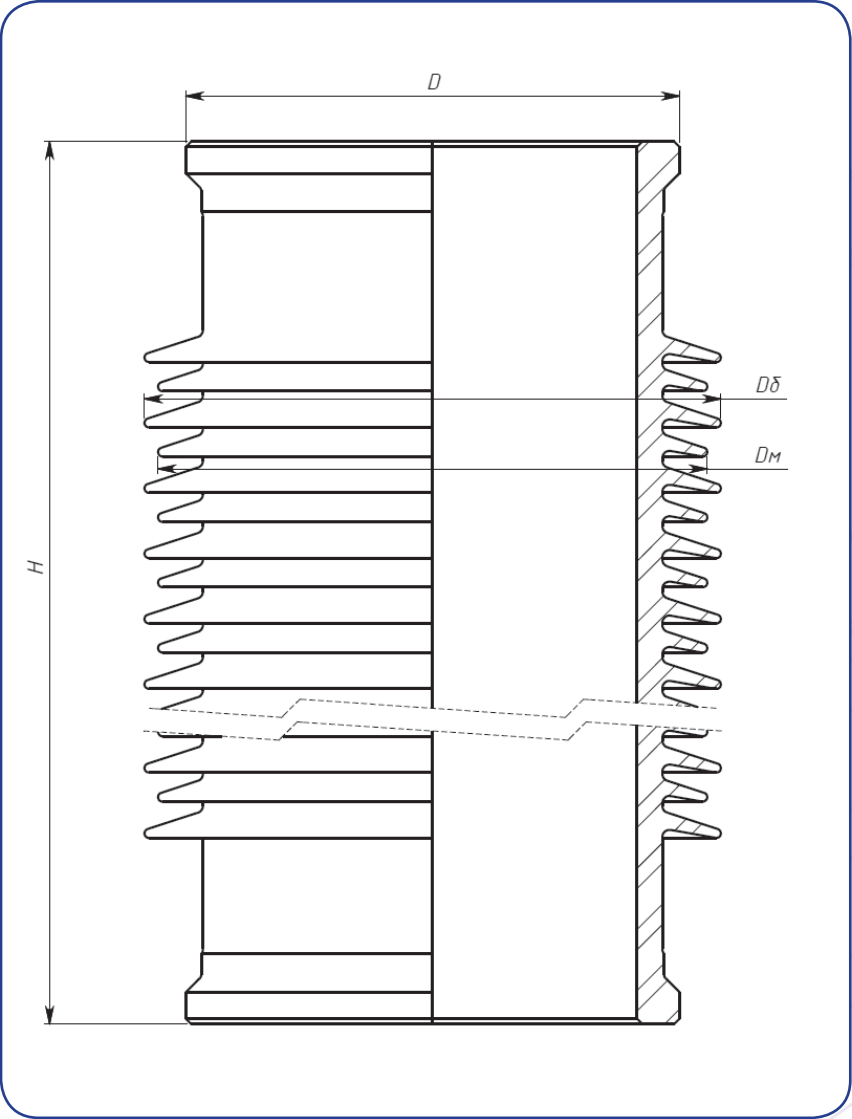
Indicator	PKSA 1270/100 (285)	PKSA 1270/100 (315)	PKSA 1270/100 (395)	PKSA 1400/210	PKSA 1680/210	PKSA 1290/170 (285)	PKSA 1290/170 (315)	PKSA 1290/170 (395)
Height H, mm	1268	1268	1268	1398	1678	1288	1288	1288
Creepage distance, at least, cm	285	315	395	400	455	285	315	395
Weight, max, kg	41	42	45	86	99	57	59	64
Insulating part diameter D, mm	225.5	209	226	310	250	260	263	275
Outer diameter D1, mm	160	160	160	275	275	220	220	220
Inner diameter d, mm	100	100	100	210	210	170	170	170
Fig.	1	2	2	2	2	2	2	2



Indicator	P 1340-130
Height H, mm	1340
Creepage distance, at least, cm	300
Weight, max, kg	105
Insulating part diameter Dins, mm	310
Outer diameter D, mm	220
Inner diameter d, mm	130

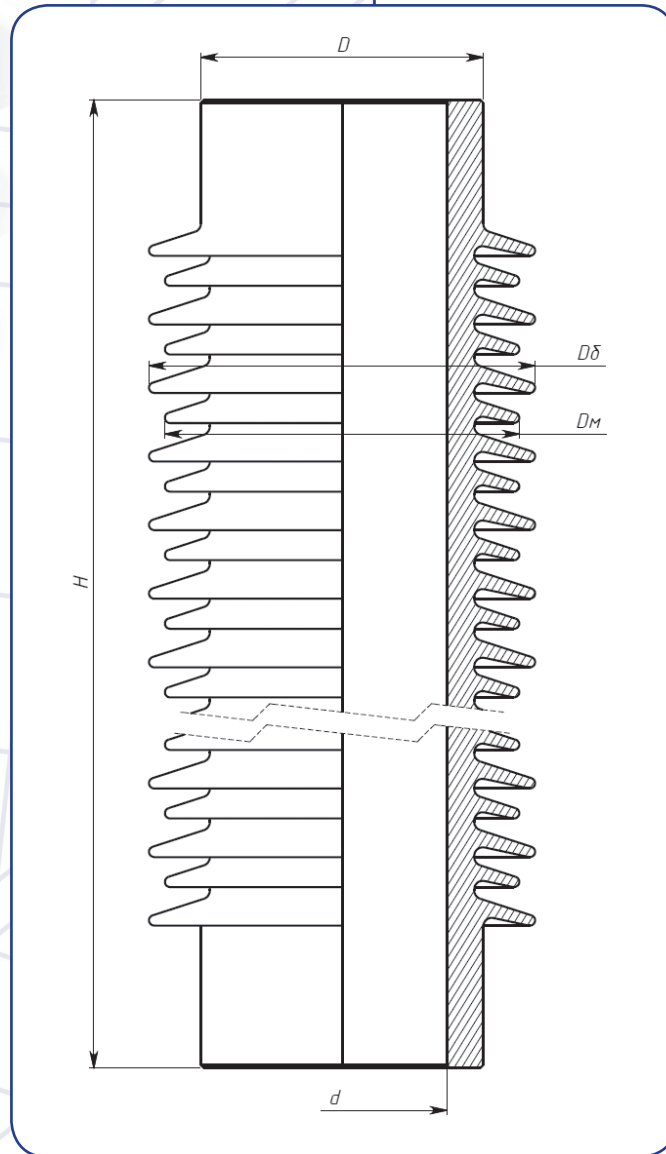
P 1240-450

P-1440-450 III UHL1



Indicator	P 1240-450	P-1440-450 III UHL1
Height H, mm	1240	1440
Creepage distance, at least, cm	285	450
Weight, max, kg	223	304
Insulating part larger diameter D _l , mm	635	670
Insulating part smaller diameter D _s , mm	605	640
Outer diameter D, mm	544	544
Inner diameter d, mm	450	450
Rated voltage, kV	110	166

P 1130-198
P 1160-133 II
P 1160-133 III
P 1430-300
PM Vo-110 01



Indicator	P 1130-198	P 1160-133 II	P 1160-133 III	P 1430-300	PM Vo-110 01
Height H, mm	1128	1160	1160	1424	1304
Creepage distance, at least, cm	285	250	330	390	285
Weight, max, kg	108	52	58	251	104
Insulating part larger diameter D _L , mm	365	270	285	510	360
Insulating part smaller diameter D _s , mm	335	237	253	480	330
Outer diameter D, mm	267	176	176	383	280
Inner diameter d, mm	198	133	133	300	210

Bushing Insulators for 1-35 kV Transformer Bushings

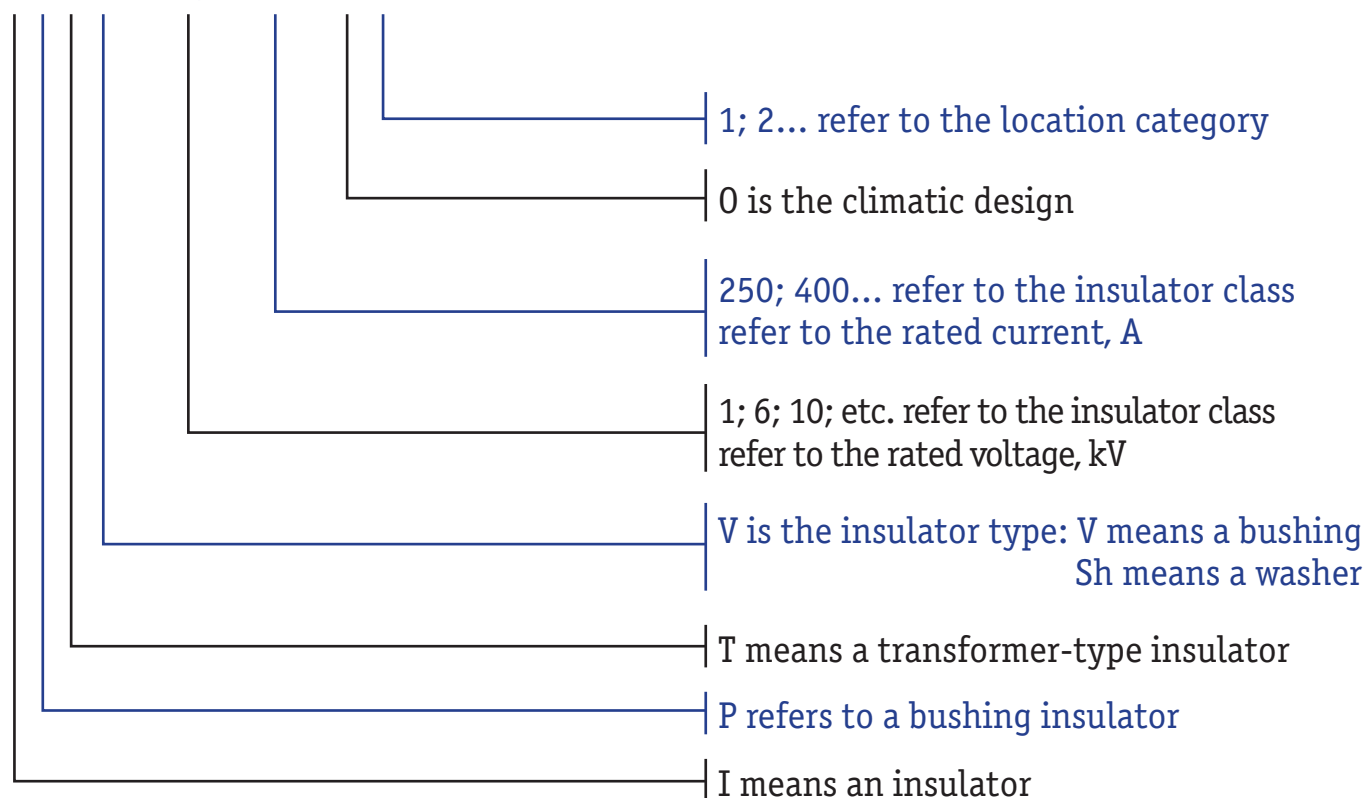
Insulator	Page	Insulator	Page
IPT-10-250 B 01	57	IPT-1/400 01	58
IPT-10-250 V 01	57	IPT-1/250 01	58
IPT-6-10/250 A 01	57	IPT-1/630 01	58
IPTV-1/1600-2000 01	57	3070	59
IPTV-0.5/100 01	57	1926	59
IPTV-1/1000 01	57	1937	59
IPTV-1/400-630 01	57	3109	59
IPTV-1/250 01	57	1927	59
IPT-1/1600-2000 01	58	1936	59
IPT-0.5/100 01	58	6211	60
IPT-1/1000 01	58	IPTSh-0.5/100 01	61

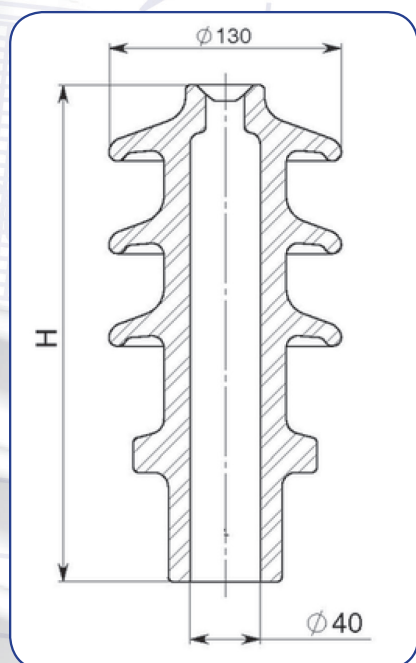
Applications:

These insulators are designed for installation and insulation of live parts of closed distribution devices of electric power plants and substations, complete switchgear, connections with open distribution devices or power lines on AC voltage of 6 to 35 kV at up to 100 Hz, for the use in atmosphere types I and II under GOST 15150, as well as for closed wiring.

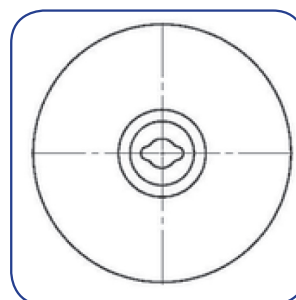
Insulator Designation Legend:

IPTV - 1/250 01



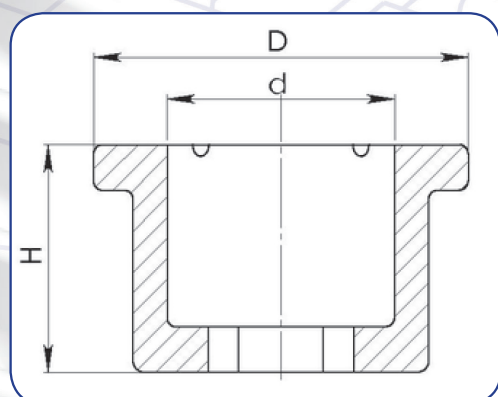


IPT-10-250 B 01
IPT-10-250 V 01
IPT-6-10/250 A 01

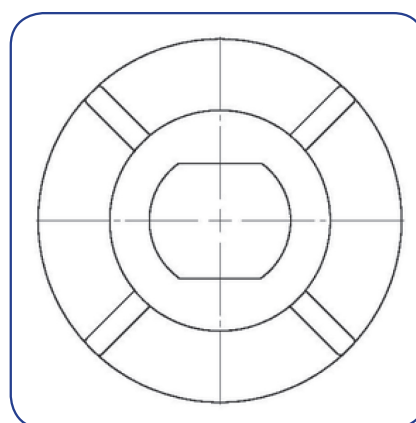


Indicator	IPT-10-250 B 01	IPT-10-250 V 01	IPT-6-10/250 A 01
Rated voltage, kV	10	10	6,0-10,0
Rated current, A	250	250	250
Creepage distance, min, mm	300	420	200
Height H, mm	295	350	240
Insulating part diameter D, mm	130	130	130
Weight, kg	3,2	4	2,2

IPTV-1/1600-2000 01
IPTV-0,5/100 01
IPTV-1/1000 01

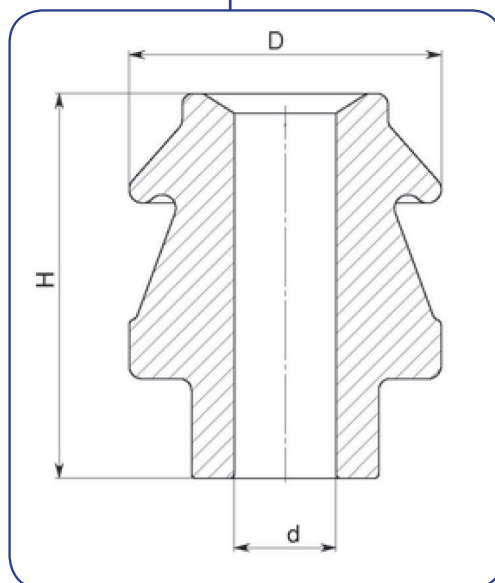


IPTV-1/400-630 01
IPTV-1/250 01



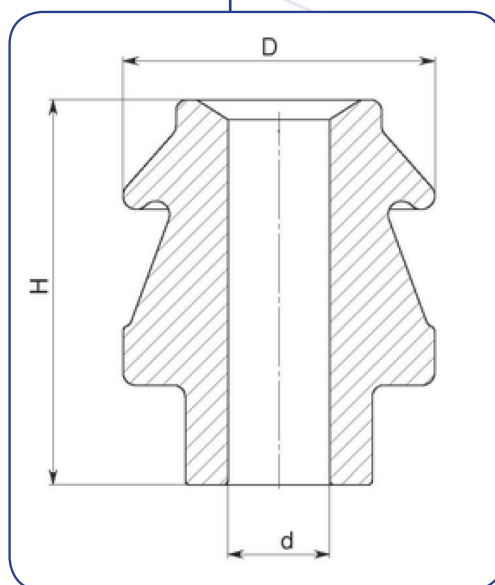
Indicator	IPTV-1/1600-2000 01	IPTV-0,5/100 01	IPTV-1/1000 01	IPTV-1/400-630 01	IPTV-1/250 01
Rated voltage, kV	1	0,5	1	1	1
Rated current, A	1600-2000	100	1000	400-630	250
Height H, mm	35	15	35	30	30
Insulating part diameter D, mm	125	40	110	85	60
Weight, kg	0,51	0,02	0.45	0,28	0,14

IPT-1/1600-2000 01
IPT-0,5/100 01
IPT-1/1000 01



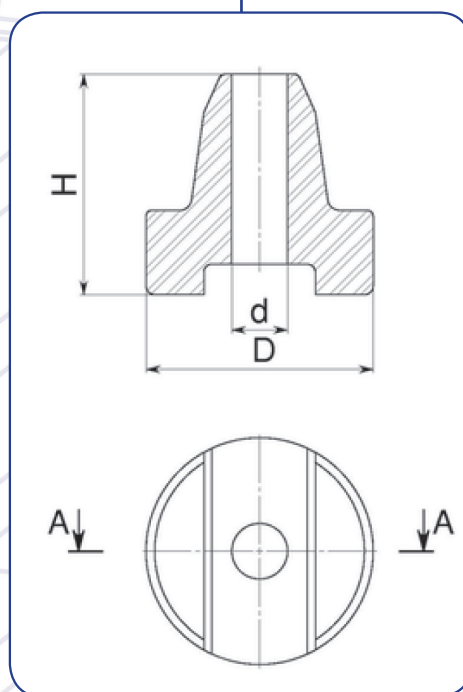
Indicator	IPT-1/1600-2000 01	IPT-0,5/100 01	IPT-1/1000 01
Rated voltage, kV	1	0,5	1
Rated current, A	1600-2000	100	1000
Height H, mm	100	35	100
Insulating part diameter D, mm	105	40	90
Inner diameter d, mm	46	10	35
Weight, kg	1,1	0,07	0,7

IPT-1/400 01
IPT-1/250 01
IPT-1/630 01



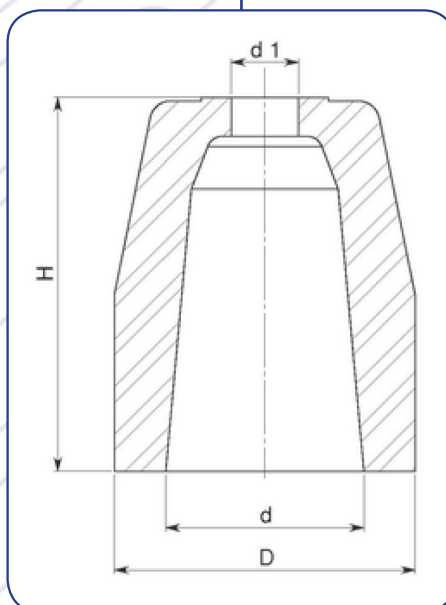
Indicator	IPT-1/400 01	IPT-1/250 01	IPT-1/630 01
Rated voltage, kV	1	1	1
Rated current, A	400	250	630
Height H, mm	90	80	90
Insulating part diameter D, mm	70	50	70
Inner diameter d, mm	19	15	23
Weight, kg	0,42	0,22	0,41

3070
1926
1937



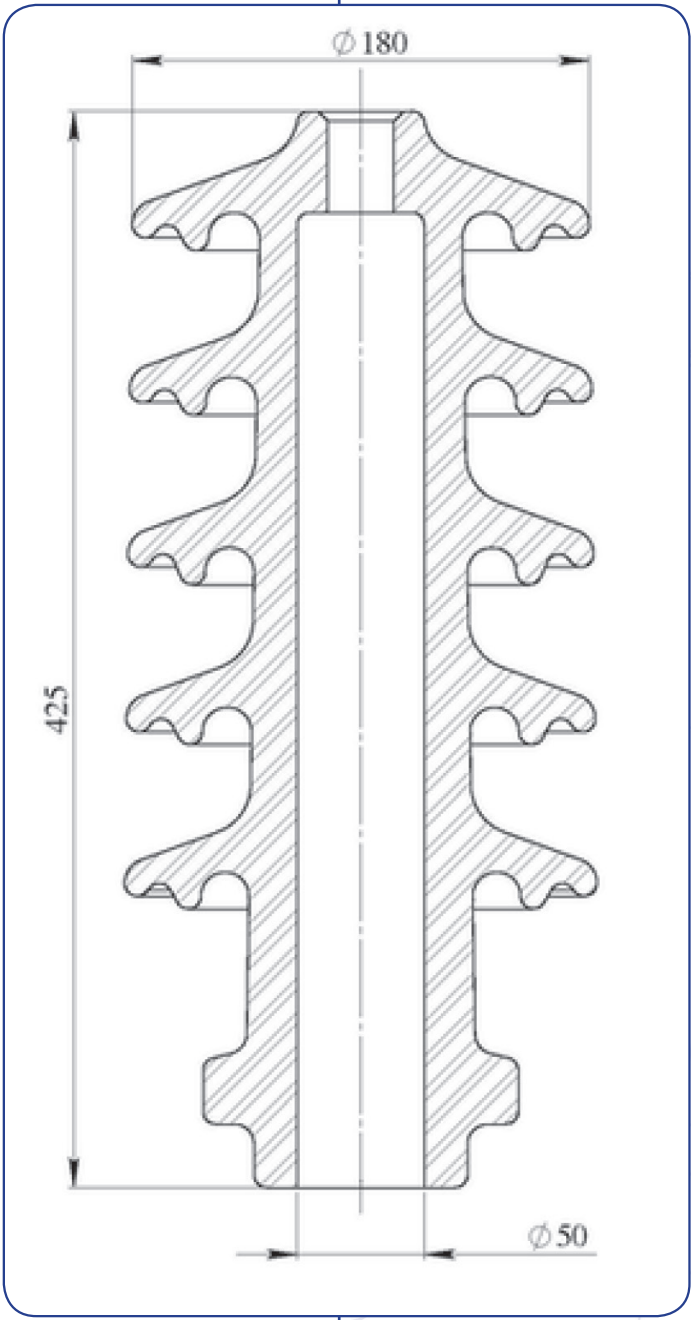
Indicator	3070	1926	1937
Rated voltage, kV	1	3	6
Height H, mm	58	97	106
Insulating part diameter D, mm	57	100	85
Weight, kg	0,15	0,8	0,83

3109
1927
1936

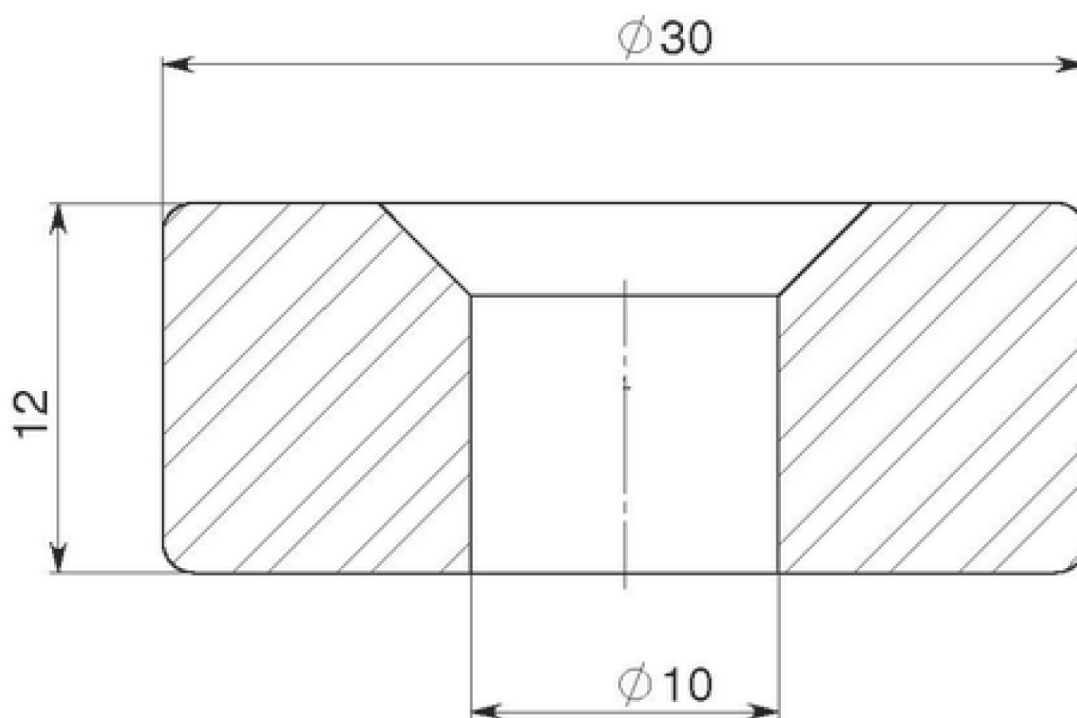


Indicator	3109	1927	1936
Rated voltage, kV	6	3	6
Height H, mm	45	70	127
Insulating part diameter D, mm	57	100	85
Weight, kg	0,15	0,61	0,61





Indicator	6211
Rated voltage, kV	35
Creepage distance, min, mm	700
Height H, mm	425
Insulating part diameter D, mm	180
Weight, kg	9



Indicator	IPTSh-0.5/100 01
Rated voltage, kV	0,5
Rated current, A	100
Height H, mm	12
Insulating part diameter D, mm	30
Weight, kg	0,02

Suspension Line Porcelain Rod Insulators

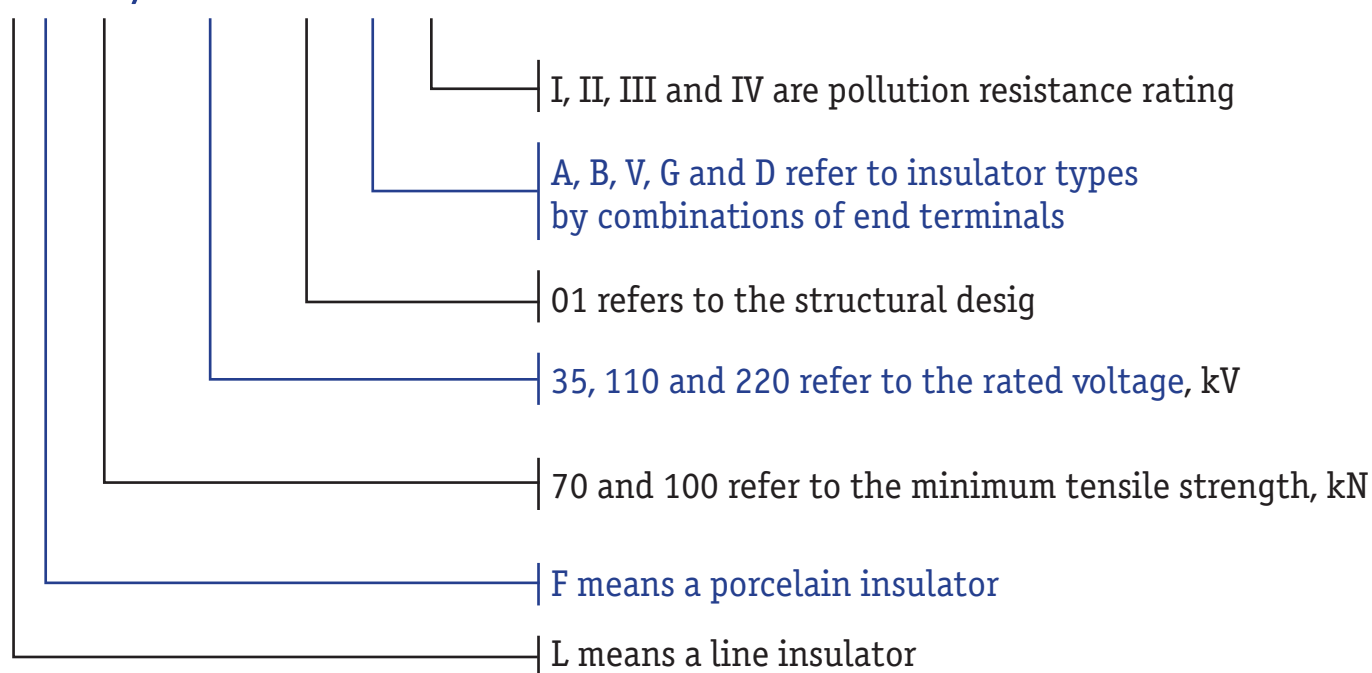
Insulator	Page
LF 70/35-D-II	63
LF 70/35-D-IV	63
LF 70/110-D-II	63
LF 70/110-01 D-II	63
LF 70/110-D-III	63
LF 70/110-D-IV	63
LF 70/220-D-IV	63
LF120/110-D-IV	63
LF120/150-D-IV	63
LF 120/220-D-IV	63

Applications:

These insulators are designed for insulation and fastening of wires and ground wires of overhead transmission lines, in distribution devices of power plants and AC and DC substations with voltages up to 1000 V at up to 100 Hz at ambient temperatures of minus 60°C to plus 50°C, in areas with different pollution resistance ratings.

Insulator Designation Legend:

LF 70/110-01 D-II



LF 70/35-D-II
 LF 70/35-D-IV
 LF 70/110-D-II
 LF 70/110-01 D-II
 LF 70/110-D-III

LF 70/110-D-IV
 LF 70/220-D-IV
 LF120/110-D-IV
 LF120/150-D-IV
 LF 120/220-D-IV

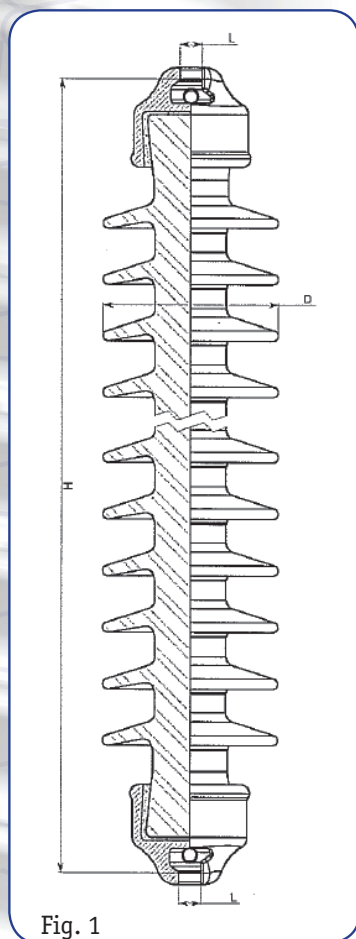


Fig. 1

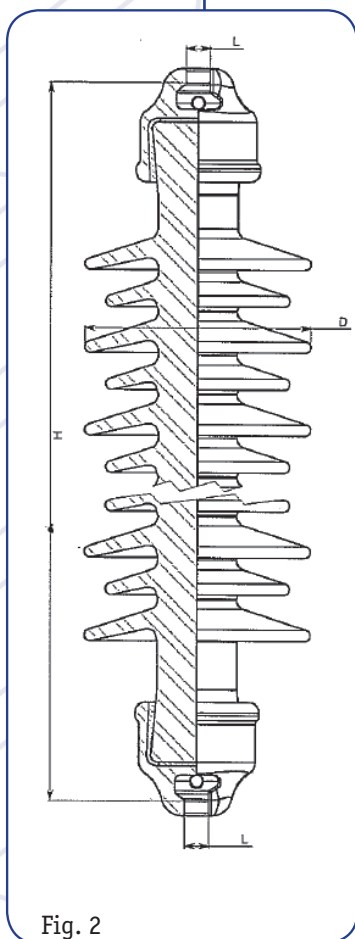


Fig. 2

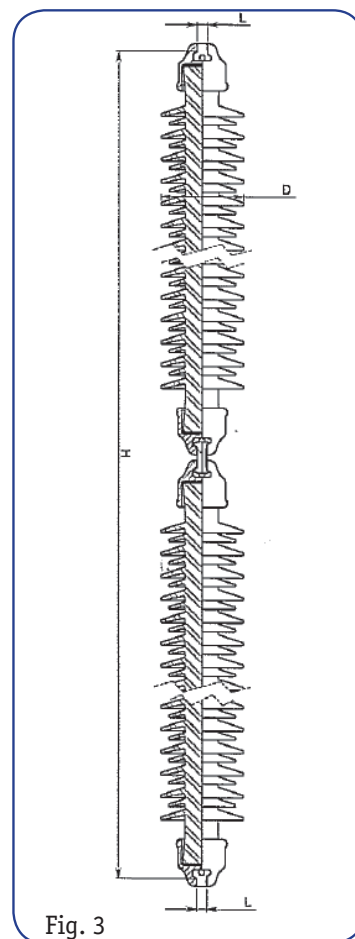


Fig. 3

Indicator	LF 70/35-D-II	LF 70/35-D-IV	LF 70/110-D-II	LF 70/110-01 D-II	LF 70/110-D-III	LF 70/110-D-IV	LF 70/220-D-IV	LF120/110-D-IV	LF120/150-D-IV	LF 120/220-D-IV
Rated voltage, kV	35	35	110	110	110	110	220	110	110	220
Minimum mechanical tensile strength, kN	70	70	70	70	70	70	70	120	120	120
Test voltage of (full) lightning impulse, kV	200	200	550	550	550	550	960	550	550	1070
Creepage distance, min, cm	89.5	101	290	260	395	508	1016	508	508	1016
Specific creepage distance, cm/kV	2.2	2.5	2.3	2.1	3.1	4	4	4	4	4
Weight, max, kg	8.5	8.4	30	16.7	35	25	48	32	31.4	65
Construction height H, mm	535	535	1179	1159	1312	1367	2739	1367	1367	2771
Insulating part diameter D, mm	102	103	164	110	178	145	138	157	157	157
Reference socket size L	16A	16A	16A	16A	16A	16A	16A	16A	16A	16A
Fig.	2	3	1	2	2	2	3	2	2	3



Porcelain Cap-and-Pin Rod Insulators for Railway Overhead Wiring

Insulator	Page	Insulator	Page
PSF 70-3/0.5-01 UHL1	66	KSF 100-25/0.95 UHL1	70
PSF 70-3/0.5-02 UHL1	66	FSF 100-3/0.6 UHL1	71
PSF 70-3/0.5-05 UHL1	67	FSF 100-3/0.6-3/4 UHL1	71
PSF 70-25/0.95 UHL1	67	FSF 100-3/0.6 M UHL1	71
PSF 70-3/0.5-0.6 UHL1	68	FSF 100-3/0.6-3/4 M UHL1	71
NSF 70-3/0.5 UHL1	68	FSF 100-25/0.95 UHL1	72
FSF 70-3/0.5 UHL1	69	FSF 100-25/0.95-3/4 UHL1	72
KSF 70-3/0.5 UHL1	69	Pf-70 U	73
KSF 100-3/0.6 UHL1	70	SF-70 A	73
KSF 100-3/0.6 M UHL1	70		

Applications:

These insulators are used for insulation and fastening of railway overhead wiring AC devices of 25 kV at 100 Hz and DC devices of 3 kV in atmospheres with varying degrees of pollution.

Insulator Designation Legend:

KSF 100 25 0,95 - 0,1 M UHL 1

1, 2, 3 refer to the location category

U, UHL, T refer to the climatic design

M means upgraded

01, 02... refer to the mounting type

05, 06... refer to the creepage distance in meters

3,25... refer to the insulator class

70., 100... refer to the insulator class
refer to the value of the rated mechanical tensile strength, kN

F refers to the insulating part material: porcelain

S refers to the structural design: rod-type

K refers to the insulator purpose:
K means a console-type insulator,
F means a fixed insulator,
N means a pull-off insulator,
P means a suspension insulator..

Applications:

These insulators are designed for insulation and fastening of overhead AC wires of 27.5 kV at up to 100 Hz and DC wires of over 1000 V at electrified railways.

Insulator Designation Legend:

PF 70 U

A, B... refer to the insulator modification as specified in the regulatory document for the specific insulator type

40, 70... refer to the insulator class refer to the value of the rated mechanical tensile strength, kN

F refers to the insulating part material: porcelain

K refers to the insulator purpose:

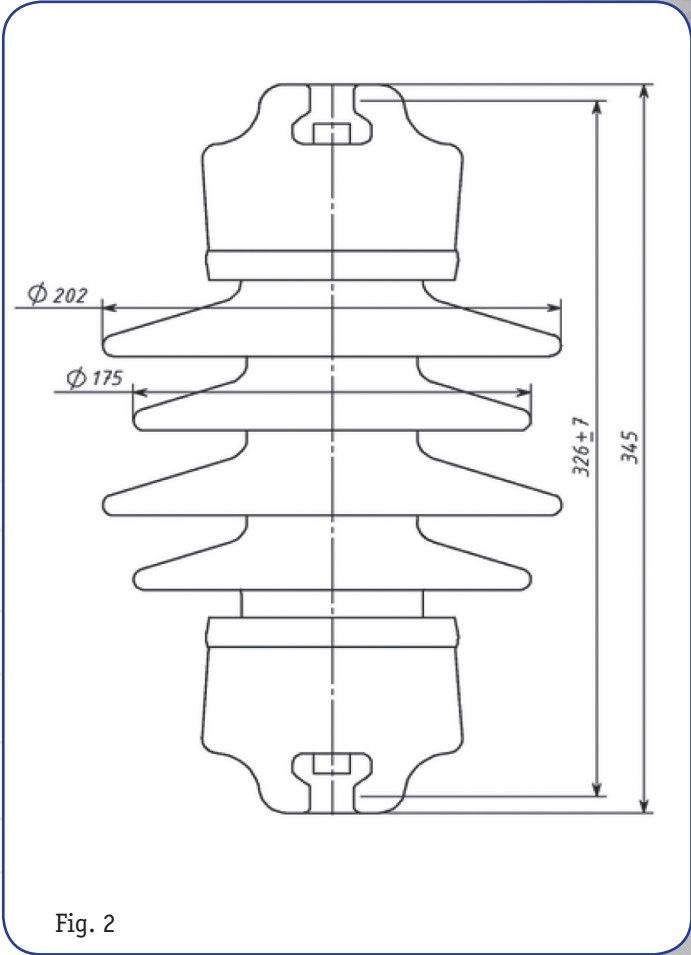
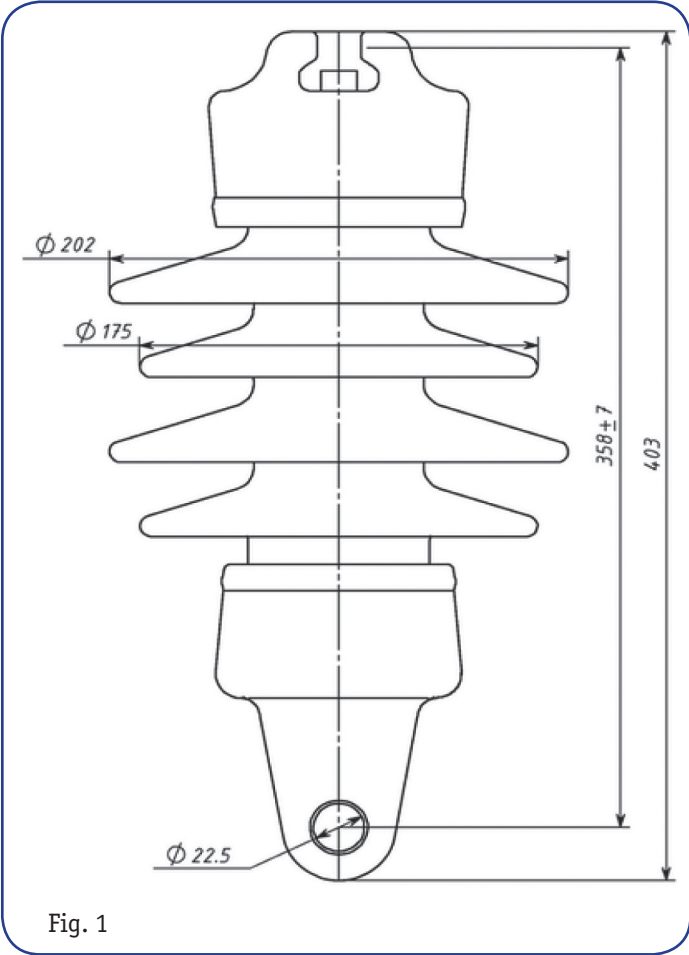
F means a fixed insulator

S means a suspension insulator with lug and yoke joint type

P means a suspension insulator with a spherical swivel joint



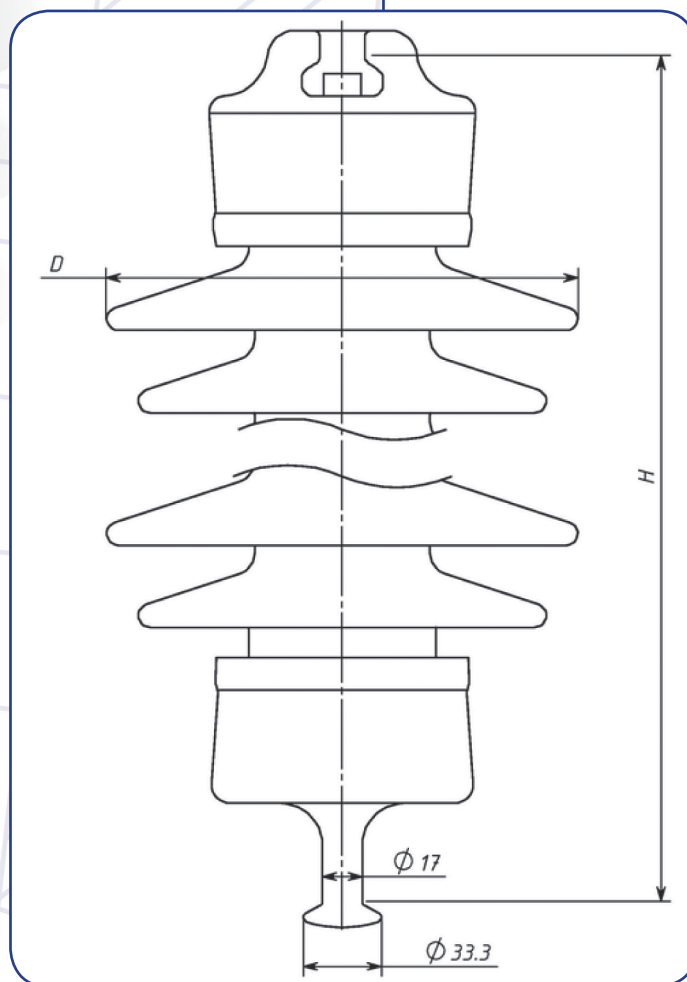
ПСФ 70-3/0,5-01 UHL1
 ПСФ 70-3/0,5-02 UHL1



Indicator	PSF 70-3/0.5-01 UHL1	PSF 70-3/0.5-02 UHL1
Rated voltage, kV	3	3
Minimum tensile strength, kN	70	70
Construction height H, mm	358	326
Insulating part diameter D, mm	202	202
Creepage distance, min, cm	50	50
Pollution resistance rating	IV	IV
Weight, up to, kg	12	10,5
Fig.	1	2

PSF 70-3/0.5-05 UHL1

PSF 70-25/0.95 UHL 1



Indicator	PSF 70-3/0.5-05 UHL1	PSF 70-25/0.95 UHL 1
Rated voltage, kV	3	25
Minimum tensile strength, kN	70	70
Construction height H, mm	350	525
Insulating part diameter D, mm	202	185
Creepage distance, min, cm	50	95
Pollution resistance rating	IV	IV
Weight, max, kg	11,5	14,4



PSF 70-3/0.5-0.6 UHL1
NSF 70-3/0.5 UHL 1

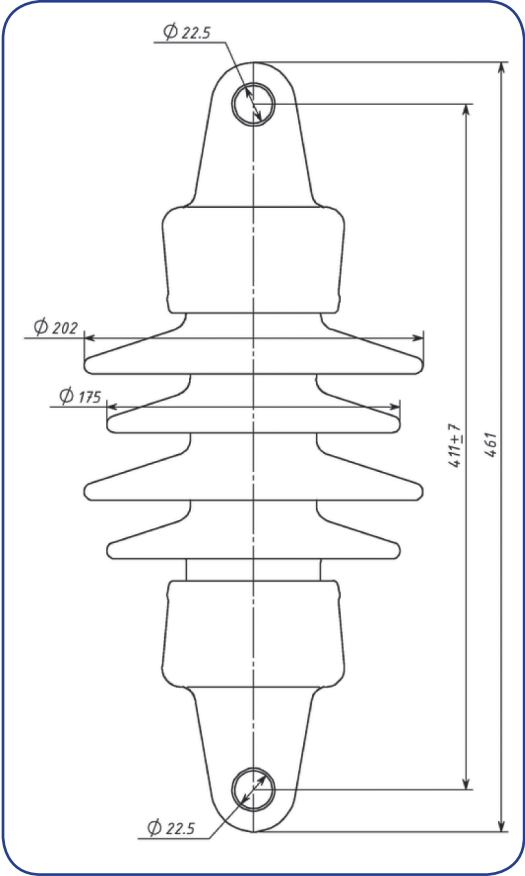


Fig. 1

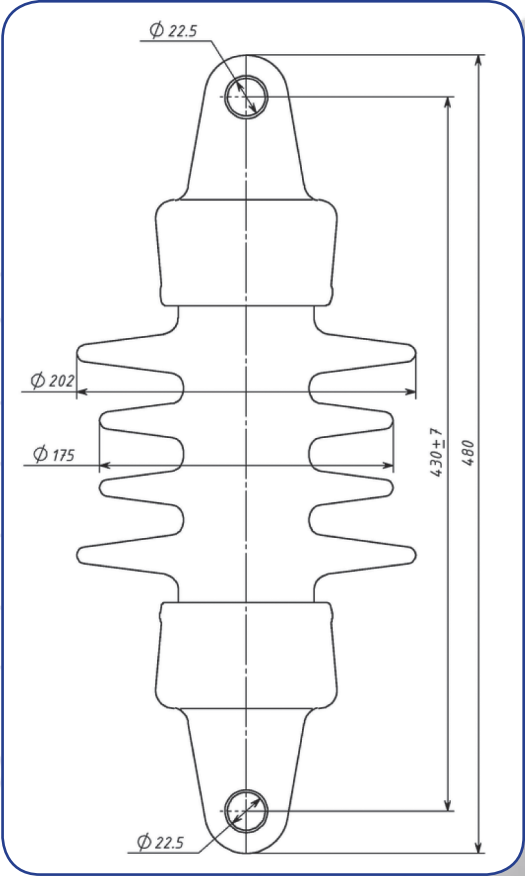


Fig. 2

Indicator	PSF 70-3/0.5-0.6 UHL1	NSF 70-3/0.5 UHL 1
Rated voltage, kV	3	3
Minimum tensile strength, kN	70	70
Minimum bending strength, kN	-	2,5
Construction height H, mm	411	430
Insulating part diameter D, mm	202	202
Creepage distance, min, cm	50	50
Pollution resistance rating	IV	IV
Weight, max, kg	10,8	12,0
Fig.	1	2

FSF 70-3/0.5 UKHL1 KSF 70-3/0.5 UKHL1

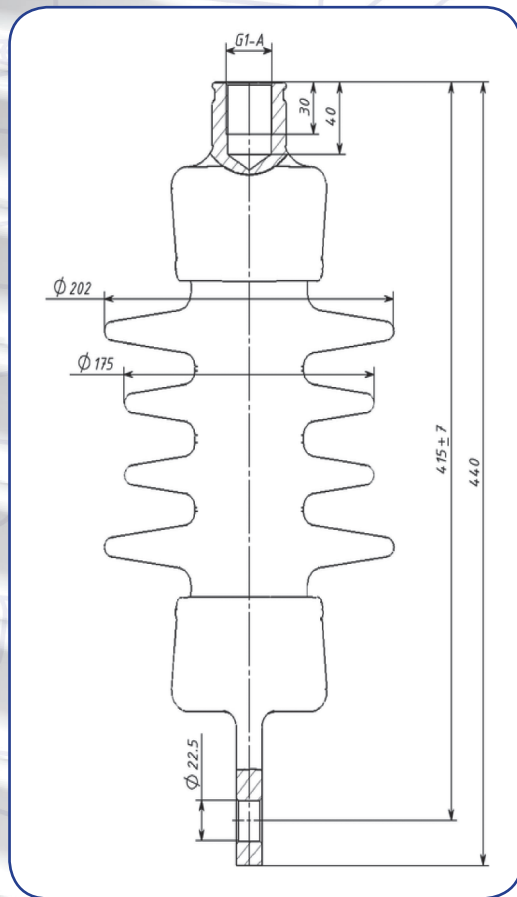


Fig. 1

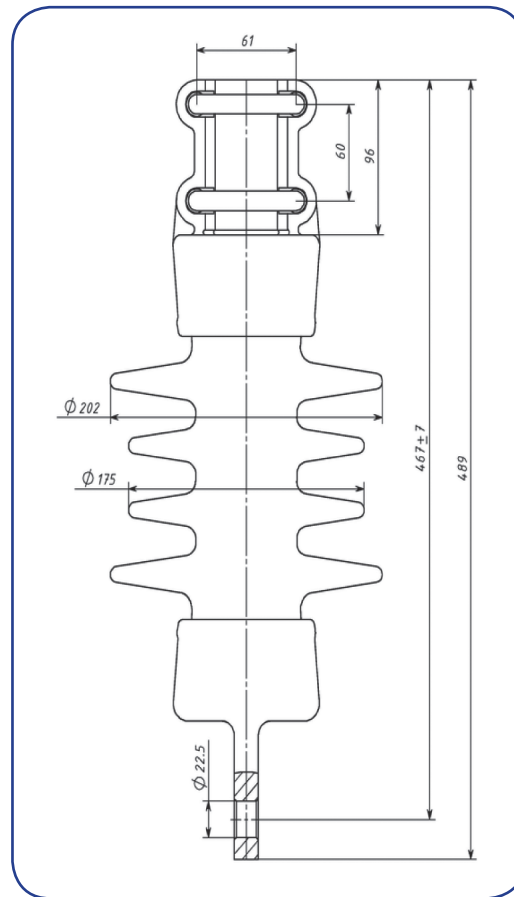
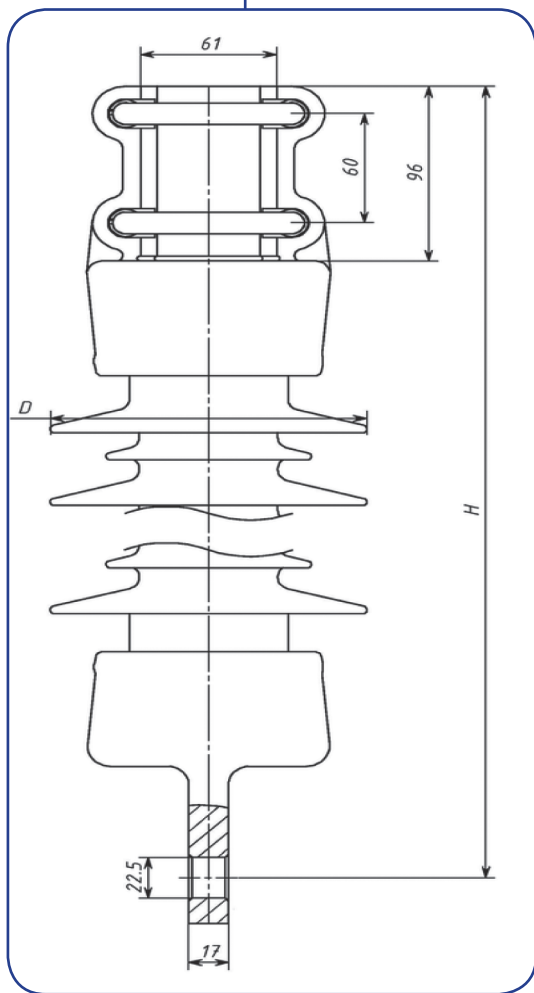


Fig. 2

Indicator	FSF 70-3/0.5 UHL1	KSF 70-3/0.5 UHL1
Rated voltage, kV	3	3
Minimum tensile strength, kN	70	70
Minimum bending strength, kN	2,5	2,5
Construction height, mm	415	467
Insulating part diameter, mm	202	202
Creepage distance, min, cm	50	50
Pollution resistance rating	IV	IV
Weight, max, kg	12,0	13,0
Fig.	1	2

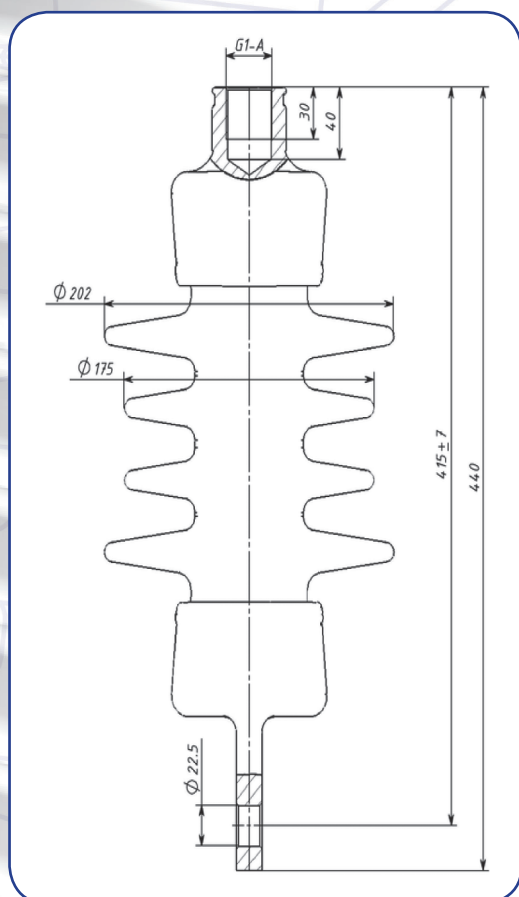


KSF 100-3/0.6 UKHL1
KSF 100-3/0.6M UKHL1
KSF 100-25/0.95 UKHL1

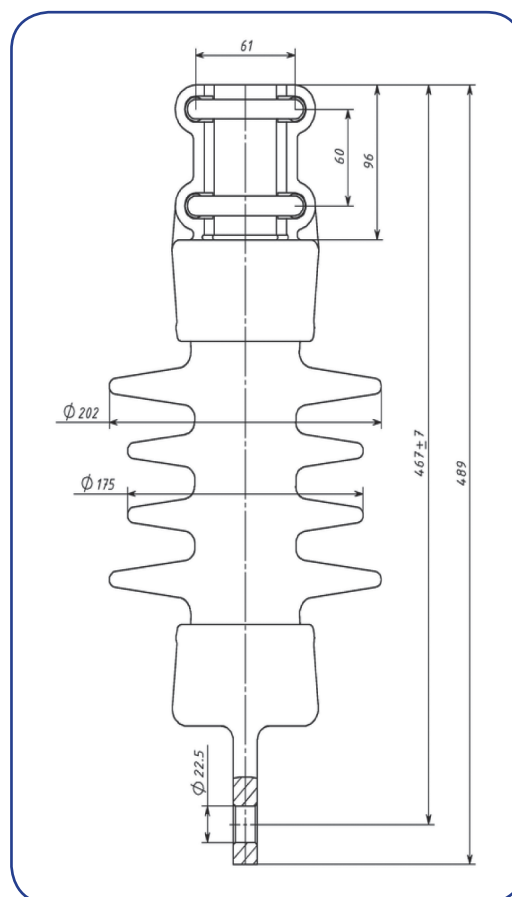


Indicator	KSF 100-3/0.6 UHL1	KSF 100-3/0.6M UHL1	KSF 100-25/0.95 UHL1
Rated voltage, kV	3	3	25
Minimum tensile strength, kN	100	100	100
Minimum bending strength, kN	3,5	3,5	3,5
Construction height H, mm	495	495	607
Insulating part diameter D, mm	204	185	185
Creepage distance, min, cm	60	60	95
Pollution resistance rating	IV	IV	IV
Weight, max, kg	16,2	11,5	19,0

FSF 100-3/0.6 UHL1
FSF 100-3/0.6-3/4 UHL1



FSF 100-3/0.6 M UHL1
FSF 100-3/0.6-3/4 M UHL1

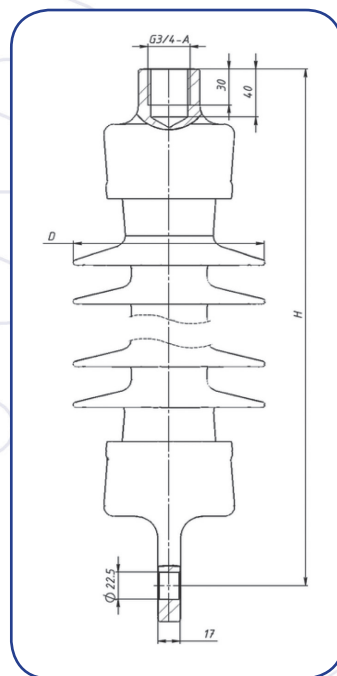
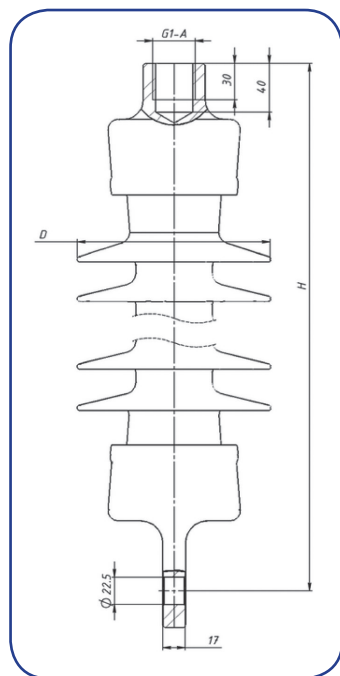
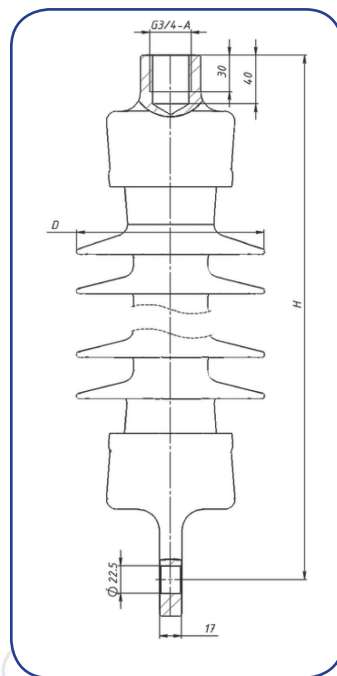
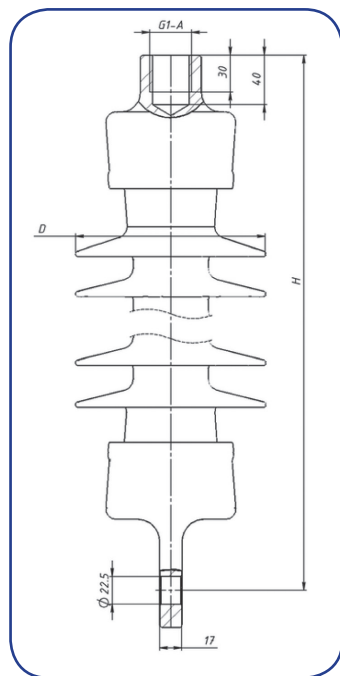


Indicator	FSF 100-3/0.6 UHL1	FSF 100-3/0.6-3/4 UHL1	FSF 100-3/0.6 M UHL1	FSF 100-3/0.6-3/4 M UHL1
Rated voltage, kV	3	3	3	3
Minimum tensile strength, kN	100	100	100	100
Minimum bending strength, kN	3,5	3,5	3,5	3,5
Construction height H, mm	446	446	446	446
Insulating part diameter D, mm	204	204	185	185
Creepage distance, min, cm	60	60	60	60
Pollution resistance rating	IV	IV	IV	IV
Weight, max, kg	16,0	16,0	10,1	10,1
Coupling thread	G1-A	G3/4-A	G1-A	G3/4-A



FSF 100-25/0.95 UHL1

FSF 100-25/0.95-3/4 UHL1



Indicator	FSF 100-25/0.95 UHL1	FSF 100-25/0.95-3/4 UHL1
Rated voltage, kV	25	25
Minimum tensile strength, kN	100	100
Minimum bending strength, kN	3,5	3,5
Construction height H, mm	558	558
Insulating part diameter D, mm	185	185
Creepage distance, at least, cm	95	95
Pollution resistance rating	IV	IV
Weight, max, kg	17,0	17,0
Coupling thread	G1-A	G3/4-A

PF - 70 U SF - 70 A

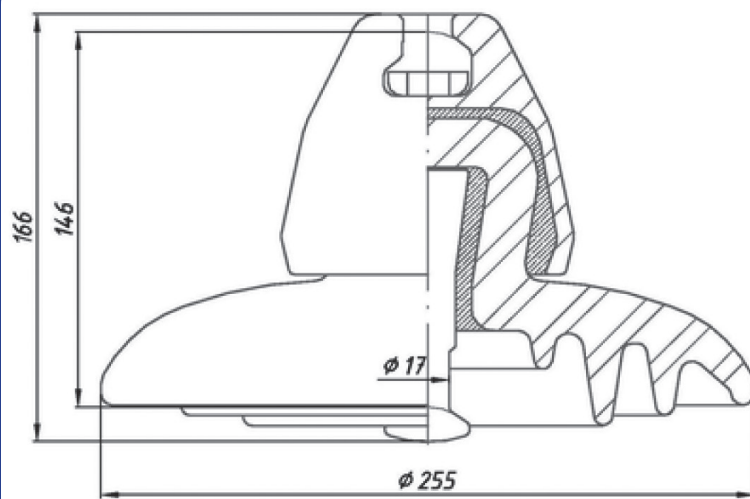


Fig. 1

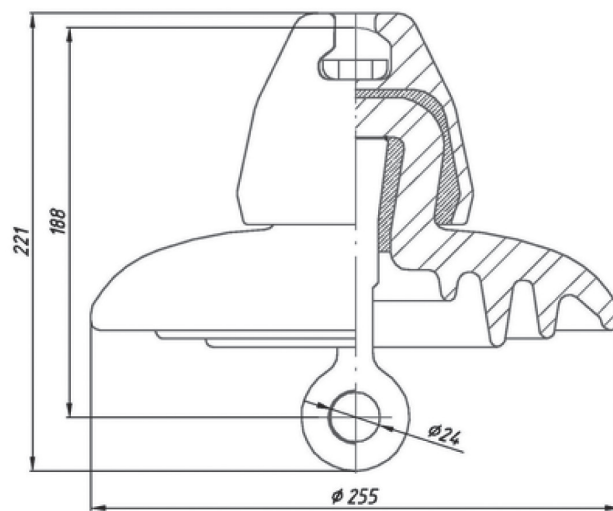


Fig. 2

Indicator	PF - 70 U	SF - 70 A
Minimum mechanical tensile strength, kN	70	70
Construction height H, mm	146	188
Creepage distance, min, cm	32	32
Withstand pulse voltage, kV	130	130
Withstand voltage at 50 Hz, (wet), kV	40	40
Weight, max, kg	6,5	6,4
Fig.	1	2

Notes



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Contact

Tatyana Suchilina

Manager

Phone: +7 (495) 995-23-45 (ext. 2238)

Mobile: +7 (903) 154-46-70

E-mail: suchilma@irito.ru



Limited Liability Company
GZHELSKY ELECTROIZOLYATOR LTD



Limited Liability Company
GZHELSKY ELECTROIZOLYATOR

**Building 232, Novokharitonovo, Ramensky District,
Moscow Region, Russia, 140155**

Phone: +7 (495) 995-23-45

Fax: +7 (495) 221-77-53

URL: www.insulator.ru