COMPOSITE INSULATORS END FITTINGS

All the end fittings listed in the table below refer to what is stated in **IEC 61466-1 (02-1997)** standard



Socket (S)

SML	*IEC 60120*
40 kN	*size 11*
70-120 kN	*size 16*
160-210 kN	*size 20*
230-300 kN	*size 24*



Ball (B)

SML	IEC 60120
40 kN	size 11
70-120 kN	size 16
160-210 kN	size 20
230-300 kN	size 24



Clevis (C)

SML	IEC 60471
70 kN	size 13L
120 kN	size 16L
160-210 kN	size (19L) 22L
230-320 kN	size 25L
400-500 kN	size 28L



Tongue (T)

SML	IEC 60471
70 kN	size 13L
120 kN	size 16L
160-210 kN	size (19L) 22L
230-320 kN	size 25L



Eye (E)

SML	IEC 61466-1
70 kN	size 17 (24)
120 kN	size 24
160-210 kN	size 25

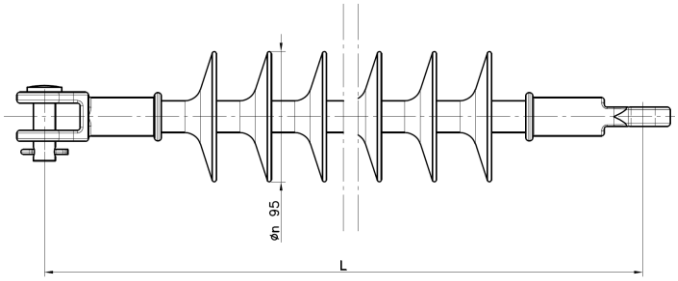


Y-Clevis (Y)

SML	IEC 61466-1
70 kN	size 17 (24)
120 kN	size 24
160-210 kN	size 25

All this end fittings are in hot dip galvanized steel, special fitting can be made according to customer request.

Distribution Composite Suspension - Tension Insulators in Silicone Rubber type ISI-SLY-* class 50 kN



Dimensions tolerance acc. to IEC 61109

Selection Guide Line voltage (kV) 17,5	24	36	Catalogue Code (♦)	Length L (mm)	No. of Sheds A No **(1)**	Leakage distance (mm)	Dry arc distance (mm)	DRY Lightning impul. withs. 1,2/50 (kV)	WET Power freq. withs. 50 Hz (kV)	Weight (kg)
			SLY-A6-50**	415	6	650	295	185	100	~ 1,0
			SLY-A7-50**	455	7	755	335	210	110	~ 1,1
			SLY-A8-50**	495	8	860	375	235	120	~ 1,1

Pollution level acc. to IEC 60815: **Medium_20 mm/kV** | **High_25 mm/kV** | **Very High_31 mm/kV** | **Extra_45 mm/kV**

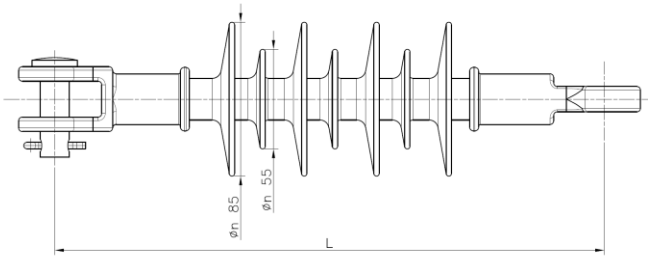
NOTE : Once chosen the insulator that is the most suitable to the characteristics of the line on which you have to install it, in order to obtain the total length of the insulator (L), please, select the kind of end fitting you have to use (see page 3) and refer to the following tables :

Ground fitting	Line fitting	Code (2)	Length change (L)
CLEVIS	TONGUE	CT	0
SOCKET	BALL	SB	-20

These insulators are produced and tested according to IEC 61109.

Specified Mechanical Load	**SML - IEC 61109**
Routine Test Load	RTL = 50% of SML
Specified Mechanical Load (SML)	50 kN
Routine Test Load (RTL)	25 kN
Max torsion Load	30 N*m
(♦) Key to the catalog numbers	* Key : ISI-SLY-A**(1)**-50**(2)**
Example : ISI-SLY-A6-50CT	

Distribution Composite Suspension - Tension Insulators in Silicone Rubber type ISI-CIN-* class 50 kN



Dimensions tolerance acc. to IEC 61109

Selection Guide Line voltage (kV) 10 - 17.5	Catalogue Code (♦)	Length L (mm)	No. of Sheds A No **(1)**	Leakage distance (mm)	Dry arc distance (mm)	DRY Lightning impul. withs. 1,2/50 (kV)	WET Power freq. withs. 50 Hz (kV)	Weight (kg)
	CIN-A4-50**	305	4+3	445	190	135	75	~ 0,7

Pollution level acc. to IEC 60815: **Medium_20 mm/kV** | **High_25 mm/kV** | **Very High_31 mm/kV** | **Extra_45 mm/kV**

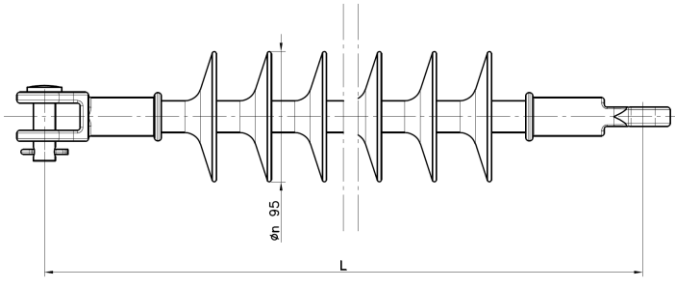
NOTE : Once chosen the insulator that is the most suitable to the characteristics of the line on which you have to install it, in order to obtain the total length of the insulator (L), please, select the kind of end fitting you have to use (see page 3) and refer to the following tables :

Ground fitting	Line fitting	Code (2)	Length change (L)
CLEVIS	TONGUE	CT	0
SOCKET	BALL	SB	-25

These insulators are produced and tested according to IEC 61109.

Specified Mechanical Load	**SML - IEC 61109**
Routine Test Load	RTL = 50% of SML
Specified Mechanical Load (SML)	50 kN
Routine Test Load (RTL)	25 kN
Max torsion Load	30 N*m
(♦) Key to the catalog numbers	* Key : ISI-CIN-A4-50**(2)**

Distribution Composite Suspension - Tension Insulators in Silicone Rubber type ISI-SLY-* class 70 kN



Dimensions tolerance acc. to IEC 61109

Selection Guide Line voltage (kV) 17,5	24	36	Catalogue Code (♦)	Length L (mm)	No. of Sheds A No **(1)**	Leakage distance (mm)	Dry arc distance (mm)	DRY Lightning impul. withs. 1,2/50 (kV)	WET Power freq. withs. 50 Hz (kV)	Weight (kg)
			SLY-A6-70**	435	6	650	295	185	100	~ 1,1
			SLY-A7-70**	475	7	755	335	210	110	~ 1,2
			SLY-A8-70**	515	8	860	375	235	120	~ 1,3

Pollution level acc. to IEC 60815: **Medium_20 mm/kV** | **High_25 mm/kV** | **Very High_31 mm/kV** | **Extra_45 mm/kV**

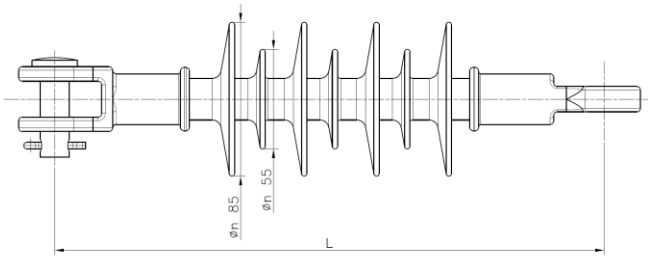
NOTE : Once chosen the insulator that is the most suitable to the characteristics of the line on which you have to install it, in order to obtain the total length of the insulator (L), please, select the kind of end fitting you have to use (see page 3) and refer to the following tables :

Ground fitting	Line fitting	Code (2)	Length change (L)
CLEVIS	TONGUE	CT	0
SOCKET	BALL	SB	-20

These insulators are produced and tested according to IEC 61109.

Specified Mechanical Load	**SML - IEC 61109**
Routine Test Load	RTL = 50% of SML
Specified Mechanical Load (SML)	70 kN
Routine Test Load (RTL)	35 kN
Max torsion Load	50 N*m
(♦) Key to the catalog numbers	* Key : ISI-SLY-A**(1)**-70**(2)**
Example : ISI-SLY-A6-70CT	

Distribution Composite Suspension - Tension Insulators in Silicone Rubber type ISI-CIN-* class 70 kN



Dimensions tolerance acc. to IEC 61109

Selection Guide Line voltage (kV) 10 - 17.5	Catalogue Code (♦)	Length L (mm)	No. of Sheds A No **(1)**	Leakage distance (mm)	Dry arc distance (mm)	DRY Lightning impul. withs. 1,2/50 (kV)	WET Power freq. withs. 50 Hz (kV)	Weight (kg)
	CIN-A4-70**	305	4+3	445	190	135	75	~ 0,7

Pollution level acc. to IEC 60815: **Medium_20 mm/kV** | **High_25 mm/kV** | **Very High_31 mm/kV** | **Extra_45 mm/kV**

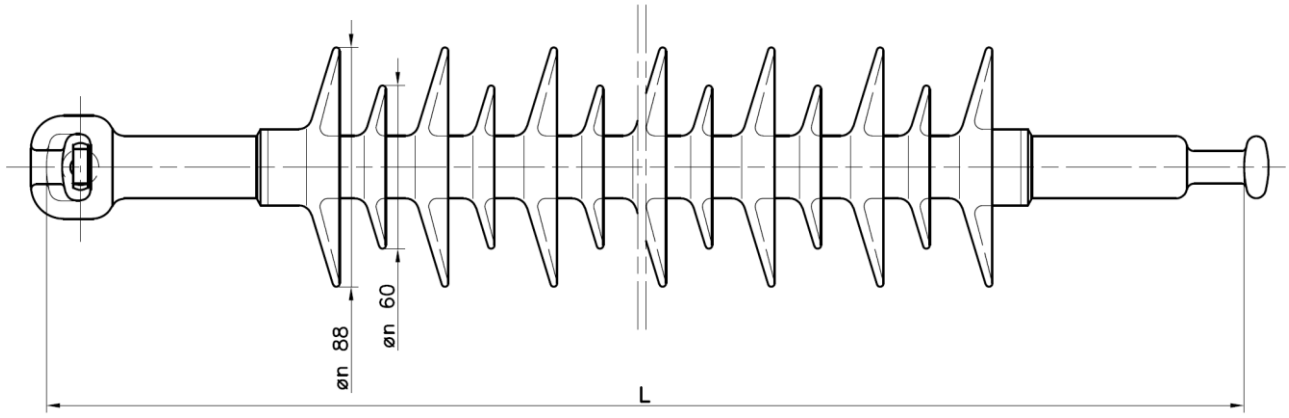
NOTE : Once chosen the insulator that is the most suitable to the characteristics of the line on which you have to install it, in order to obtain the total length of the insulator (L), please, select the kind of end fitting you have to use (see page 3) and refer to the following tables :

Ground fitting	Line fitting	Code (2)	Length change (L)
CLEVIS	TONGUE	CT	0
SOCKET	BALL	SB	-25

These insulators are produced and tested according to IEC 61109.

Specified Mechanical Load	**SML - IEC 61109**
Routine Test Load	RTL = 50% of SML
Specified Mechanical Load (SML)	70 kN
Routine Test Load (RTL)	35 kN
Max torsion Load	50 N*m
(♦) Key to the catalog numbers	* Key : ISI-CIN-A4-70**(2)**

Distribution Composite Suspension - Tension Insulators in Silicone Rubber type ISI-GUP-* class 40 kN



Dimensions tolerance acc. to IEC 61109

Selection Guide Line voltage (kV) 7.2	12	17.5	24	36	52	Catalogue Code (♦)	Length L (mm)	No. of Sheds A No **(1)**	Leakage distance (mm)	Dry arc distance (mm)	DRY Lightning impul. withs. 1,2/50 (kV)	WET Power freq. withs. 50 Hz (kV)	Weight (kg)
						GUP-A002-40**	240	2+1	225	110	60	20	0,8
						GUP-A003-40**	280	3+2	360	150	90	30	0,8
						GUP-A004-40**	320	4+3	500	190	115	45	0,9
						GUP-A005-40**	360	5+4	635	230	140	55	0,9
						GUP-A006-40**	400	6+5	770	270	160	70	1,0
						GUP-A007-40**	440	7+6	905	310	180	85	1,1
						GUP-A008-40**	480	8+7	1040	350	200	100	1,1
						GUP-A009-40**	520	9+8	1175	390	220	120	1,2
						GUP-A010-40**	560	10+9	1310	430	240	135	1,3
						GUP-A011-40**	600	11+10	1445	470	260	155	1,3

Pollution level acc. to IEC 60815: **Medium_20 mm/kV** | **High_25 mm/kV** | **Very High_31 mm/kV** | **Extra_45 mm/kV**

NOTE : Once chosen the insulator that is the most suitable to the characteristics of the line on which you have to install it, in order to obtain the total length of the insulator (L), please, select the kind of end fitting you have to use (see page 3) and refer to the following tables :

Length deviations

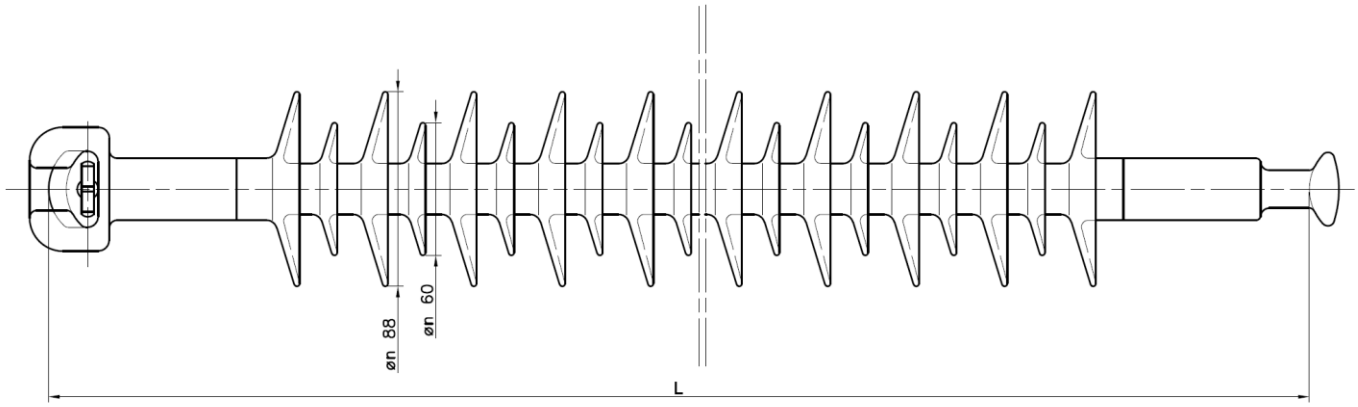
Ground fitting	Line fitting	Code **(2)**	Length change (L)
SOCKET	BALL	SB	0
CLEVIS	TONGUE	CT	+25

Specified Mechanical Load	**SML - IEC 61109**
Routine Test Load	RTL = 50% of SML
Specified Mechanical Load (SML)	40 kN
Routine Test Load (RTL)	20 kN
Max torsion Load	30 N*m
(♦) Key to the catalog numbers	* Key : ISI-GUP- A**(1)**-40**(2)**

Example : ISI-GUP-A011-40SB

These insulators are produced and tested according to IEC 61109.
It's possible to have all the other combinations, Contact us.

Distribution Composite Suspension - Tension Insulators in Silicone Rubber type ISI-GUP-* class 70 - 120 kN



Dimensions tolerance acc. to IEC 61109

Selection Guide Line voltage (kV) 7.2	12	17.5	24	36	52	Catalogue Code (♦)	Length L (mm)	No. of Sheds A No **(1)**	Leakage distance (mm)	Dry arc distance (mm)	DRY Lightning impul. withs. 1,2/50 (kV)	WET Power freq. withs. 50 Hz (kV)	Weight (kg)
						GUP-A002-120**	280	2+1	225	110	60	20	1,3
						GUP-A003-120**	320	3+2	360	150	90	30	1,4
						GUP-A004-120**	360	4+3	500	190	115	45	1,5
						GUP-A005-120**	400	5+4	635	230	140	55	1,6
						GUP-A006-120**	440	6+5	770	270	160	70	1,7
						GUP-A007-120**	480	7+6	905	310	180	85	1,8
						GUP-A008-120**	520	8+7	1040	350	200	100	1,9
						GUP-A009-120**	560	9+8	1175	390	220	120	2,0
						GUP-A010-120**	600	10+9	1310	430	240	135	2,1
						GUP-A011-120**	640	11+10	1445	470	260	155	2,2

Pollution level acc. to IEC 60815: **Medium_20 mm/kV** | **High_25 mm/kV** | **Very High_31 mm/kV** | **Extra_45 mm/kV**

NOTE : Once chosen the insulator that is the most suitable to the characteristics of the line on which you have to install it, in order to obtain the total length of the insulator (L), please, select the kind of end fitting you have to use (see page 3) and refer to the following tables :

Length deviations

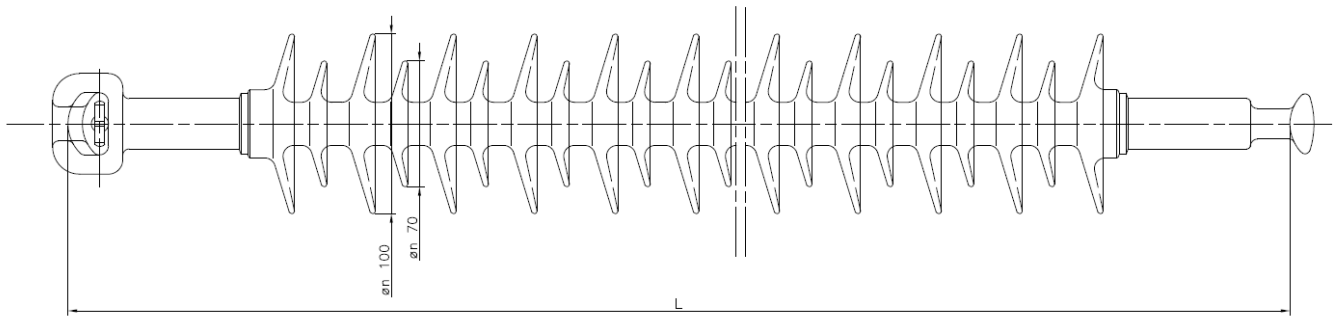
Ground fitting	Line fitting	Code **(2)**	Length change (L)
SOCKET	BALL	SB	0
CLEVIS	TONGUE	CT	+15
EYE	EYE	EE	+75
EYE	BALL	EB	+35
EYE	TONGUE	ET	+45
CLEVIS	BALL	CB	+5
Y-CLEVIS	TONGUE	YT	+25
Y-CLEVIS	EYE	YE	+50
CLEVIS	CLEVIS	CC	+15
TONGUE	TONGUE	TT	+15

Specified Mechanical Load	**SML - IEC 61109**
Routine Test Load	RTL = 50% of SML
Specified Mechanical Load (SML)	120 kN
Routine Test Load (RTL)	60 kN
Max torsion Load	50 N*m
(♦) Key to the catalog numbers	* Key : ISI-GUP- A**(1)**-120**(2)**

Example : ISI-GUP-A011-120SB

These insulators are produced and tested according to IEC 61109.
It's possible to have all the other combinations, Contact us.

Distribution Composite Suspension - Tension Insulators in Silicone Rubber type ISI-VIP-* class 70 - 120 kN



Dimensions tolerance acc. to IEC 61109

Available on demand intermediate numbers of sheds

Selection Guide Line voltage (kV) 7.2	12	17.5	24	36	52	Catalogue Code (♦)	Length L (mm)	No. of Sheds A No **(1)**	Leakage distance (mm)	Dry arc distance (mm)	DRY Lightning impul. withs. 1,2/50 (kV)	WET Power freq. withs. 50 Hz (kV)	Weight (kg)
						VIP-A002-120**	275	2+1	245	120	90	30	1,3
						VIP-A003-120**	320	3+2	395	165	125	40	1,4
						VIP-A004-120**	365	4+3	550	210	160	55	1,5
						VIP-A005-120**	410	5+4	700	255	180	70	1,7
						VIP-A006-120**	455	6+5	850	300	200	85	1,8
						VIP-A007-120**	500	7+6	1005	345	240	100	1,9
						VIP-A008-120**	545	8+7	1155	390	260	120	2,0
						VIP-A009-120**	590	9+8	1310	435	280	135	2,1
						VIP-A010-120**	635	10+9	1460	480	305	150	2,2
						VIP-A011-120**	680	11+10	1610	525	325	165	2,3
						VIP-A012-120**	725	12+11	1765	570	350	180	2,4

Pollution level acc. to IEC 60815: **Medium_20 mm/kV** | **High_25 mm/kV** | **Very High_31 mm/kV** | **Extra_45 mm/kV**

NOTE : Once chosen the insulator that is the most suitable to the characteristics of the line on which you have to install it, in order to obtain the total length of the insulator (L), please, select the kind of end fitting you have to use (see page 3) and refer to the following tables :

Length deviations

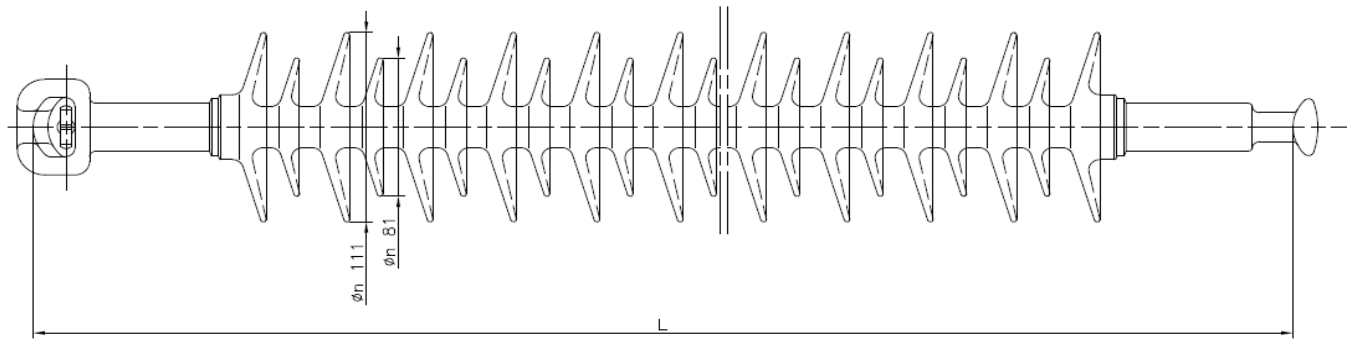
Ground fitting	Line fitting	Code **(2)**	Length change (L)
SOCKET	BALL	SB	0
CLEVIS	TONGUE	CT	+20
EYE	EYE	EE	+80
EYE	BALL	EB	+35
EYE	TONGUE	ET	+50
CLEVIS	BALL	CB	+10
Y-CLEVIS	TONGUE	YT	+30
Y-CLEVIS	EYE	YE	+60
CLEVIS	CLEVIS	CC	+20
TONGUE	TONGUE	TT	+20

Specified Mechanical Load	**SML - IEC 61109**
Routine Test Load	RTL = 50% of SML
Specified Mechanical Load (SML)	120 kN
Routine Test Load (RTL)	60 kN
Max torsion Load	50 N*m
(♦) Key to the catalog numbers	* Key : ISI-VIP- A**(1)**-120**(2)**

Example : ISI-VIP-A011-120SB

These insulators are produced and tested according to IEC 61109.
It's possible to have all the other combinations, Contact us.

Distribution Composite Suspension - Tension Insulators in Silicone Rubber type ISI-TER-* class 70 - 120 kN



Dimensions tolerance acc. to IEC 61109

Available on demand intermediate numbers of sheds

Selection Guide Line voltage (kV) 7.2	12	17.5	24	36	52	Catalogue Code (♦)	Length L (mm)	No. of Sheds A No **(1)**	Leakage distance (mm)	Dry arc distance (mm)	DRY Lightning impul. withs. 1,2/50 (kV)	WET Power freq. withs. 50 Hz (kV)	Weight (kg)
						TER-A002-120**	275	2+1	275	130	95	35	1,4
						TER-A003-120**	320	3+2	450	175	130	45	1,5
						TER-A004-120**	365	4+3	625	220	165	60	1,6
						TER-A005-120**	410	5+4	800	265	185	75	1,8
						TER-A006-120**	455	6+5	970	310	205	90	1,9
						TER-A007-120**	500	7+6	1145	355	245	105	2,0
						TER-A008-120**	545	8+7	1320	400	265	120	2,2
						TER-A009-120**	590	9+8	1495	445	285	140	2,3
						TER-A010-120**	635	10+9	1665	490	310	155	2,4
						TER-A011-120**	680	11+10	1840	535	330	170	2,6
						TER-A012-120**	725	12+11	2015	580	355	185	2,7

Pollution level acc. to IEC 60815: **Medium_20 mm/kV** | **High_25 mm/kV** | **Very High_31 mm/kV** | **Extra_45 mm/kV**

NOTE : Once chosen the insulator that is the most suitable to the characteristics of the line on which you have to install it, in order to obtain the total length of the insulator (L), please, select the kind of end fitting you have to use (see page 3) and refer to the following tables :

Length deviations

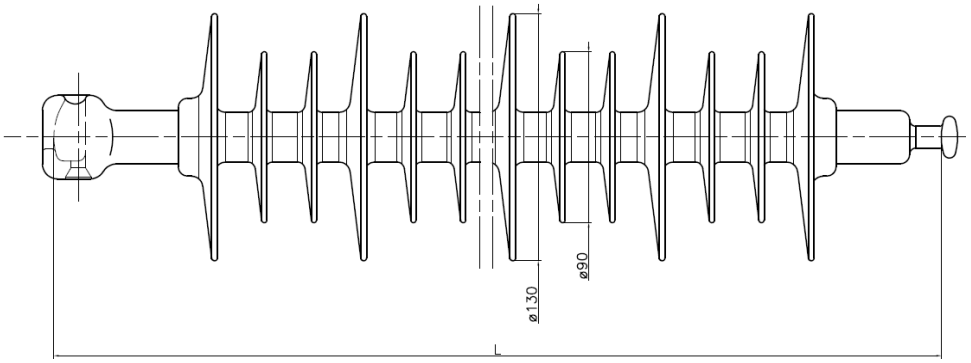
Ground fitting	Line fitting	Code **(2)**	Length change (L)
SOCKET	BALL	SB	0
CLEVIS	TONGUE	CT	+20
EYE	EYE	EE	+80
EYE	BALL	EB	+35
EYE	TONGUE	ET	+50
CLEVIS	BALL	CB	+10
Y-CLEVIS	TONGUE	YT	+30
Y-CLEVIS	EYE	YE	+60
CLEVIS	CLEVIS	CC	+20
TONGUE	TONGUE	TT	+20

Specified Mechanical Load	**SML - IEC 61109**
Routine Test Load	RTL = 50% of SML
Specified Mechanical Load (SML)	120 kN
Routine Test Load (RTL)	60 kN
Max torsion Load	50 N*m
(♦) Key to the catalog numbers	* Key : ISI-TER- A**(1)**-120**(2)**

Example : ISI-TER-A011-120SB

These insulators are produced and tested according to IEC 61109.
It's possible to have all the other combinations, Contact us.

Distribution Composite Suspension - Tension Insulators in Silicone Rubber type ISI-TWE-* class 40 kN



Dimensions tolerance acc. to IEC 61109

Available on demand intermediate numbers of sheds

Selection Guide Line voltage (kV) 17,5	24	36	Catalogue Code (♦)	Length L (mm)	No. of Sheds A No **(1)**	Leakage distance (mm)	Dry arc distance (mm)	DRY Lightning impul. withs. 1,2/50 (kV)	WET Power freq. withs. 50 Hz (kV)	Weight (kg)
			TWE-A3-40**	310	3+4	690	260	180	75	1,3
			TWE-A4-40**	385	4+5	975	340	200	95	1,4
			TWE-A5-40**	465	5+6	1265	420	250	140	1,7

Pollution level acc. to IEC 60815: **Medium_20 mm/kV** | **High_25 mm/kV** | **Very High_31 mm/kV** | **Extra_45 mm/kV**

NOTE : Once chosen the insulator that is the most suitable to the characteristics of the line on which you have to install it, in order to obtain the total length of the insulator (L), please, select the kind of end fitting you have to use (see page 3) and refer to the following tables :

Ground fitting	Line fitting	Code (2)	Length change (L)
SOCKET	BALL	SB	0
CLEVIS	TONGUE	CT	+30
TONGUE	TONGUE	TT	+30

These insulators are produced and tested according to IEC 61109.
It's possible to have all the other combinations, Contact us.

Specified Mechanical Load	**SML - IEC 61109**
Routine Test Load	RTL = 50% of SML
Specified Mechanical Load (SML)	40 kN
Routine Test Load (RTL)	20 kN
Max torsion Load	50 N*m
(♦) Key to the catalog numbers	* Key : ISI-TWE-A**(1)**-40**(2)**
Example : ISI-TWE-A5-40SB	

Distribution Composite Insulators type ISI-TWE-* class 70 kN

Selection Guide Line voltage (kV) 17,5	24	36	Catalogue Code (♦)	Length L (mm)	No. of Sheds A No **(1)**	Leakage distance (mm)	Dry arc distance (mm)	DRY Lightning impul. withs. 1,2/50 (kV)	WET Power freq. withs. 50 Hz (kV)	Weight (kg)
			TWE-A3-70**	345	3+4	690	260	180	75	1,6
			TWE-A4-70**	420	4+5	975	340	200	95	1,8
			TWE-A5-70**	500	5+6	1265	420	250	140	2,0

Pollution level acc. to IEC 60815: **Medium_20 mm/kV** | **High_25 mm/kV** | **Very High_31 mm/kV** | **Extra_45 mm/kV**

NOTE : Once chosen the insulator that is the most suitable to the characteristics of the line on which you have to install it, in order to obtain the total length of the insulator (L), please, select the kind of end fitting you have to use (see page 3) and refer to the following tables :

Ground fitting	Line fitting	Code (2)	Length change (L)
SOCKET	BALL	SB	0
CLEVIS	TONGUE	CT	+10
TONGUE	TONGUE	TT	-5

These insulators are produced and tested according to IEC 61109.
It's possible to have all the other combinations, Contact us.

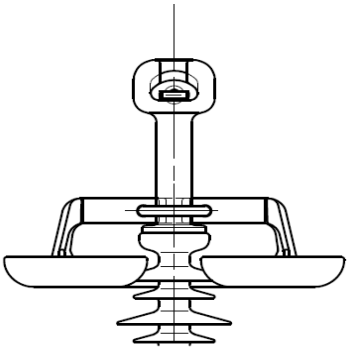
Specified Mechanical Load	**SML - IEC 61109**
Routine Test Load	RTL = 50% of SML
Specified Mechanical Load (SML)	70 kN
Routine Test Load (RTL)	35 kN
Max torsion Load	50 N*m
(♦) Key to the catalog numbers	* Key : ISI-TWE-A**(1)**-70**(2)**
Example : ISI-TWE-A5-70SB	

Transmission Lines Composite Insulators - Corona Rings

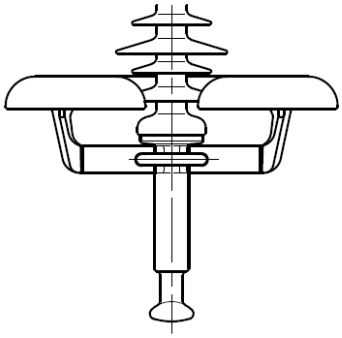
In High voltages Lines can result in unwanted noise (RIV) and corona. To minimize the effects of corona and to optimize the electrical field around the composite insulators, corona rings are applied to one or both ends of the insulator. Typically, for system voltages 220kV and above a corona ring or combination of rings is necessary, the table below details the rings necessary. However, some applications may require rings at lower system voltages. When a corona ring is used the electrical characteristics can change.

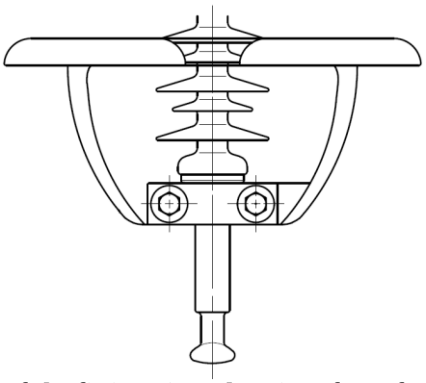
Recommended Grading Rings by Line Voltage		
Line Voltage (kV)	Ground End	Line End
220/245	**None**	**K**
300/362	**None**	**J**
380/420	**K**	**W**
500/550	**J**	**W**

Configuration with 2 corona (>380 kV)



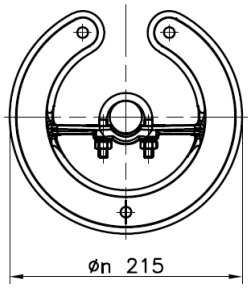
Configuration with 1 corona (>220 kV < 380 kV)



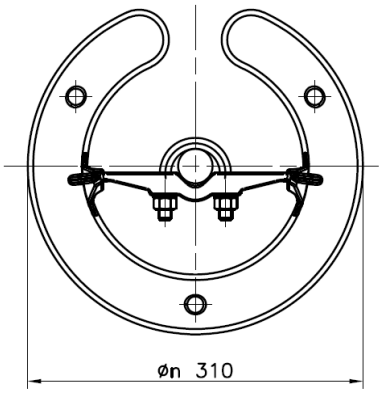


The fixing position of the corona MUST be in contact with the lower parts of the fittings (see drawings for reference)

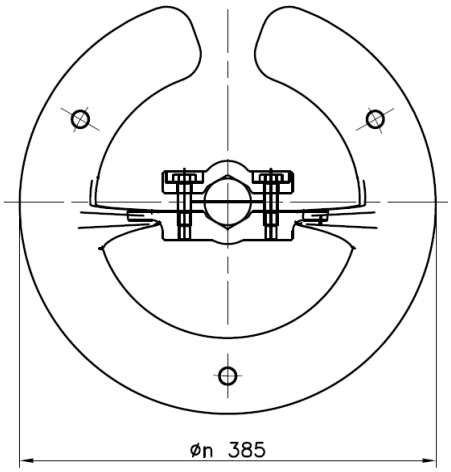
K



J



W

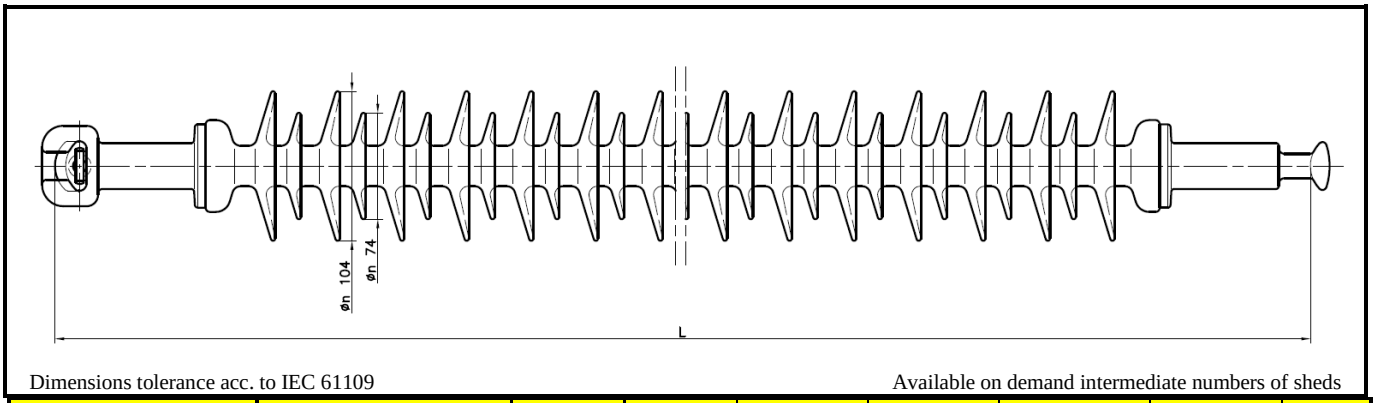


These information are only for reference, it is necessary to verify the hardware condition to have final decision. The corona rings are made in aluminum.

The last two letters of description indicates the type of rings.

Example: ISI-MAN-A79-210SB+**KW** Insulator with grading rings Øn 215 (K) and Øn 385 (W).

Transmission Composite Suspension - Tension Insulators in Silicone Rubber type ISI-MAN-* class 70 - 120 kN



Dimensions tolerance acc. to IEC 61109

Available on demand intermediate numbers of sheds

Selection Guide Line voltage (kV) 69 - 72,5	100 - 123	145 - 170	245	300 - 362	420	550	Catalogue Code (♦)	Length L (mm)	No. of Sheds A No **(1)**	Leakage distance (mm)	Dry arc distance (mm)	DRY Lightning impul. withs. 1,2/50 (kV)	WET Power freq. withs. 50 Hz (kV)	Weight (kg)
							MAN-A011-120**	740	11+10	1690	545	340	175	3,6
							MAN-A012-120**	785	12+11	1845	590	365	190	3,7
							MAN-A015-120**	920	15+14	2300	725	425	235	4,1
							MAN-A017-120**	1010	17+16	2605	815	485	265	4,3
							MAN-A021-120**	1190	21+20	3215	995	605	325	4,8
							MAN-A023-120**	1280	23+22	3515	1085	655	345	5,1
							MAN-A025-120**	1370	25+24	3820	1175	690	350	5,3
							MAN-A027-120**	1460	27+26	4125	1265	730	360	5,6
							MAN-A031-120**	1640	31+30	4735	1445	835	415	6,1
							MAN-A033-120**	1730	33+32	5035	1535	890	445	6,4
							MAN-A037-120**	1910	37+36	5645	1715	1005	510	6,9
							MAN-A039-120**	2000	39+38	5950	1805	1065	545	7,1
							MAN-A043-120**	2180	43+42	6555	1985	1180	610	7,7
							MAN-A047-120**	2360	47+46	7165	2165	1270	635	8,2
							MAN-A051-120**	2540	51+50	7775	2345	1360	650	8,7
							MAN-A055-120**	2720	55+54	8380	2525	1450	670	9,2
							MAN-A059-120**	2900	59+58	8990	2705	1540	690	9,7
							MAN-A061-120**	2990	61+60	9295	2795	1585	700	10
							MAN-A065-120**	3170	65+64	9900	2975	1675	715	10,5
							MAN-A069-120**	3350	69+68	10510	3155	1725	745	11
							MAN-A073-120**	3530	73+72	11120	3335	1790	780	11,5
							MAN-A075-120**	3620	75+74	11425	3425	1840	795	11,8
							MAN-A079-120**	3800	79+78	12030	3605	1940	830	12,3
							MAN-A083-120**	3980	83+82	12640	3785	2040	860	12,8
							MAN-A085-120**	4070	85+84	12945	3875	2090	880	13,0
							MAN-A087-120**	4160	87+86	13245	3965	2140	895	13,3
							MAN-A089-120**	4250	89+88	13550	4055	2185	915	13,6
							MAN-A091-120**	4340	91+90	13855	4145	2235	935	13,8
							MAN-A097-120**	4610	97+96	14770	4415	2380	995	14,6
							MAN-A101-120**	4790	101+100	15375	4595	2480	1035	15,1
							MAN-A105-120**	4970	105+104	15985	4775	2575	1075	15,6
							MAN-A107-120**	5060	107+106	16290	4865	2625	1100	15,9
							MAN-A111-120**	5240	111+110	16895	5045	2725	1140	16,4

Pollution level acc. to IEC 60815: **Medium_20 mm/kV** | **High_25 mm/kV** | **Very High_31 mm/kV** | **Extra_45 mm/kV**

NOTE : Once chosen the insulator that is the most suitable to the characteristics of the line on which you have to install it, in order to obtain the total length of the insulator (L), please, select the kind of end fitting you have to use (see page 3) and refer to the following tables :

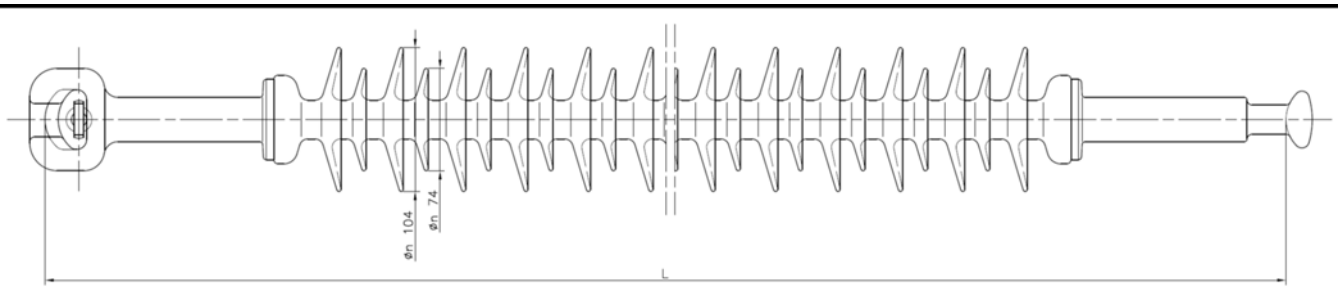
Length deviations

Ground fitting	Line fitting	Code **(2)**	Length change (L)
SOCKET	BALL	SB	0
CLEVIS	TONGUE	CT	+20
EYE	EYE	EE	+80
EYE	BALL	EB	+40
EYE	TONGUE	ET	+50
CLEVIS	BALL	CB	+10
Y-CLEVIS	TONGUE	YT	+30
Y-CLEVIS	EYE	YE	+60
CLEVIS	CLEVIS	CC	+20
TONGUE	TONGUE	TT	+20

Specified Mechanical Load	**SML - IEC 61109**
Routine Test Load	RTL = 50% of SML
Specified Mechanical Load (SML)	120 kN
Routine Test Load (RTL)	60 kN
Max torsion Load	90 N*m
(♦) Key to the catalog numbers	* Key : ISI-MAN- A**(1)**-120**(2)**
Example : ISI-MAN-A21-120SB	

These insulators are produced and tested according to IEC 61109.
It's possible to have all the other combinations, Contact us.

Transmission Composite Suspension - Tension Insulators in Silicone Rubber type ISI-MAN-* class 160 - 210 kN



Dimensions tolerance acc. to IEC 61109

Available on demand intermediate numbers of sheds

Selection Guide Line voltage (kV) 69 - 72.5	100 - 123	145 - 170	245	300 - 362	420	550	Catalogue Code (♦)	Length L (mm)	No. of Sheds A No **(1)**	Leakage distance (mm)	Dry arc distance (mm)	DRY Lightning impul. withs. 1,2/50 (kV)	WET Power freq. withs. 50 Hz (kV)	Weight (kg)
							MAN-A011-210**	850	11+10	1690	545	340	175	4,3
							MAN-A012-210**	895	12+11	1845	590	365	190	4,4
							MAN-A015-210**	1030	15+14	2300	725	425	235	4,8
							MAN-A017-210**	1120	17+16	2605	815	485	265	5,0
							MAN-A021-210**	1300	21+20	3215	995	605	325	5,5
							MAN-A023-210**	1390	23+22	3515	1085	655	345	5,8
							MAN-A025-210**	1480	25+24	3820	1175	690	350	6,1
							MAN-A027-210**	1570	27+26	4125	1265	730	360	6,3
							MAN-A031-210**	1750	31+30	4735	1445	835	415	6,8
							MAN-A033-210**	1840	33+32	5035	1535	890	445	7,1
							MAN-A037-210**	2020	37+36	5645	1715	1005	510	7,6
							MAN-A039-210**	2110	39+38	5950	1805	1065	545	7,9
							MAN-A043-210**	2290	43+42	6555	1985	1180	610	8,4
							MAN-A047-210**	2470	47+46	7165	2165	1270	635	8,9
							MAN-A051-210**	2650	51+50	7775	2345	1360	650	9,4
							MAN-A055-210**	2830	55+54	8380	2525	1450	670	9,9
							MAN-A059-210**	3010	59+58	8990	2705	1540	690	10,4
							MAN-A061-210**	3100	61+60	9295	2795	1585	700	10,7
							MAN-A065-210**	3280	65+64	9900	2975	1675	715	11,2
							MAN-A069-210**	3460	69+68	10510	3155	1725	745	11,7
							MAN-A073-210**	3640	73+72	11120	3335	1790	780	12,2
							MAN-A075-210**	3730	75+74	11425	3425	1840	795	12,5
							MAN-A079-210**	3910	79+78	12030	3605	1940	830	13,0
							MAN-A083-210**	4090	83+82	12640	3785	2040	860	13,5
							MAN-A085-210**	4180	85+84	12945	3875	2090	880	13,8
							MAN-A087-210**	4270	87+86	13245	3965	2140	895	14,0
							MAN-A089-210**	4360	89+88	13550	4055	2185	915	14,3
							MAN-A091-210**	4450	91+90	13855	4145	2235	935	14,5
							MAN-A097-210**	4720	97+96	14770	4415	2380	995	15,3
							MAN-A101-210**	4900	101+100	15375	4595	2480	1035	15,8
							MAN-A105-210**	5080	105+104	15985	4775	2575	1075	16,3
							MAN-A107-210**	5170	107+106	16290	4865	2625	1100	16,6
							MAN-A111-210**	5350	111+110	16895	5045	2725	1140	17,1

Pollution level acc. to IEC 60815: **Medium_20 mm/kV** | **High_25 mm/kV** | **Very High_31 mm/kV** | **Extra_45 mm/kV**

NOTE : Once chosen the insulator that is the most suitable to the characteristics of the line on which you have to install it, in order to obtain the total length of the insulator (L), please, select the kind of end fitting you have to use (see page 3) and refer to the following tables :

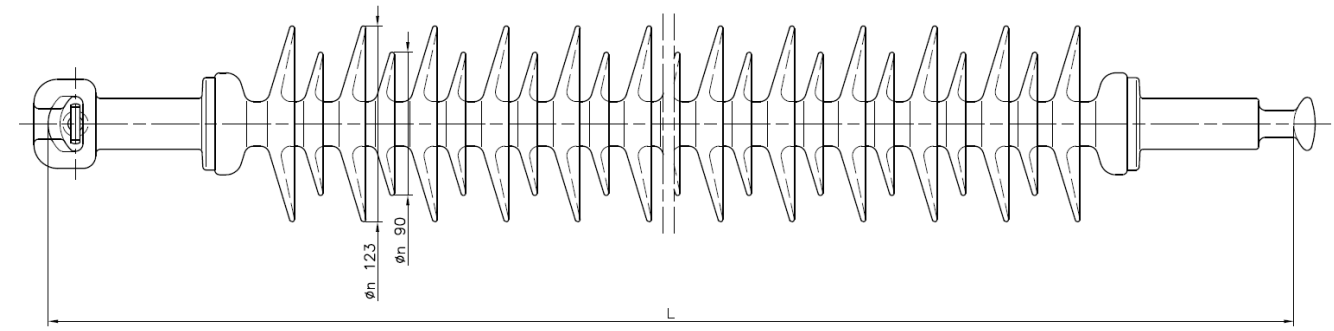
Length deviations

Ground fitting	Line fitting	Code **(2)**	Length change (L)
SOCKET	BALL	SB	0
CLEVIS	TONGUE	CT	+20
EYE	EYE	EE	+60
EYE	BALL	EB	+25
EYE	TONGUE	ET	+40
CLEVIS	BALL	CB	+5
Y-CLEVIS	TONGUE	YT	+25
Y-CLEVIS	EYE	YE	+45
CLEVIS	CLEVIS	CC	+20
TONGUE	TONGUE	TT	+20

Specified Mechanical Load	**SML - IEC 61109**
Routine Test Load	RTL = 50% of SML
Specified Mechanical Load (SML)	210 kN
Routine Test Load (RTL)	105 kN
Max torsion Load	90 N*m
(♦) Key to the catalog numbers	* Key : ISI-MAN- A**(1)**-
210**(2)**	
Example : ISI-MAN-A21-210SB	

These insulators are produced and tested according to IEC 61109.
It's possible to have all the other combinations, Contact us.

Transmission Composite Suspension - Tension Insulators in Silicone Rubber type ISI-LOK-* class 70 - 120 kN



Dimensions tolerance acc. to IEC 61109

Available on demand intermediate numbers of sheds

Selection Guide Line voltage (kV)							Catalogue Code (♦)	Length L (mm)	No. of Sheds A No **(1)**	Leakage distance (mm)	Dry arc distance (mm)	DRY Lightning impul. withs. 1,2/50 (kV)	WET Power freq. withs. 50 Hz (kV)	Weight (kg)
69 - 72,5	100 - 123	145 - 170	245	300 - 362	420	550								
							LOK-A011-120**	740	11+10	2055	555	345	175	4,0
							LOK-A012-120**	785	12+11	2250	600	370	190	4,2
							LOK-A015-120**	920	15+14	2805	735	430	235	4,7
							LOK-A017-120**	1010	17+16	3175	825	490	265	5,0
							LOK-A021-120**	1190	21+20	3925	1005	610	325	5,7
							LOK-A023-120**	1280	23+22	4295	1095	660	345	6,0
							LOK-A025-120**	1370	25+24	4670	1185	695	350	6,4
							LOK-A027-120**	1460	27+26	5040	1275	735	360	6,7
							LOK-A031-120**	1640	31+30	5790	1455	840	415	7,4
							LOK-A033-120**	1730	33+32	6160	1545	895	445	7,7
							LOK-A037-120**	1910	37+36	6910	1725	1010	510	8,4
							LOK-A039-120**	2000	39+38	7280	1815	1070	545	8,8
							LOK-A043-120**	2180	43+42	8030	1995	1185	610	9,4
							LOK-A047-120**	2360	47+46	8775	2175	1275	635	10,1
							LOK-A051-120**	2540	51+50	9520	2355	1365	650	10,8
							LOK-A055-120**	2720	55+54	10265	2535	1455	670	11,5
							LOK-A059-120**	2900	59+58	11015	2715	1545	690	12,2
							LOK-A061-120**	2990	61+60	11385	2805	1590	700	12,5
							LOK-A065-120**	3170	65+64	12135	2985	1680	715	13,2
							LOK-A069-120**	3350	69+68	12880	3165	1730	745	13,9
							LOK-A073-120**	3530	73+72	13625	3345	1795	780	14,6
							LOK-A075-120**	3620	75+74	14000	3435	1845	795	14,9
							LOK-A079-120**	3800	79+78	14745	3615	1945	830	15,6
							LOK-A083-120**	3980	83+82	15490	3795	2045	860	16,3
							LOK-A085-120**	4070	85+84	15865	3885	2095	880	16,6
							LOK-A087-120**	4160	87+86	16240	3975	2145	895	16,9
							LOK-A089-120**	4250	89+88	16610	4065	2190	915	17,3
							LOK-A091-120**	4340	91+90	16985	4155	2240	935	17,6
							LOK-A097-120**	4610	97+96	18105	4425	2385	995	18,6
							LOK-A101-120**	4790	101+100	18850	4605	2485	1035	19,3
							LOK-A105-120**	4970	105+104	19595	4785	4785	1075	20,0
							LOK-A107-120**	5060	107+106	19970	4875	2630	1100	20,4
							LOK-A111-120**	5240	111+110	20715	5055	2730	1140	21,0

Pollution level acc. to IEC 60815: **Medium_20 mm/kV** | **High_25 mm/kV** | **Very High_31 mm/kV** | **Extra_45 mm/kV**

NOTE : Once chosen the insulator that is the most suitable to the characteristics of the line on which you have to install it, in order to obtain the total length of the insulator (L), please, select the kind of end fitting you have to use (see page 3) and refer to the following tables :

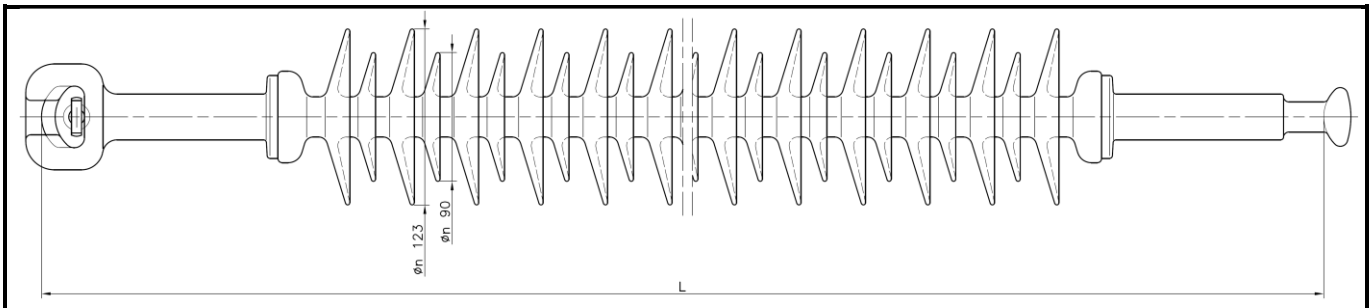
Length deviations

Ground fitting	Line fitting	Code **(2)**	Length change (L)
SOCKET	BALL	SB	0
CLEVIS	TONGUE	CT	+20
EYE	EYE	EE	+80
EYE	BALL	EB	+40
EYE	TONGUE	ET	+50
CLEVIS	BALL	CB	+10
Y-CLEVIS	TONGUE	YT	+30
Y-CLEVIS	EYE	YE	+60
CLEVIS	CLEVIS	CC	+20
TONGUE	TONGUE	TT	+20

Specified Mechanical Load	**SML - IEC 61109**
Routine Test Load	RTL = 50% of SML
Specified Mechanical Load (SML)	120 kN
Routine Test Load (RTL)	60 kN
Max torsion Load	90 N*m
(♦) Key to the catalog numbers	* Key : ISI-LOK- A**(1)**-120**(2)**
Example : ISI-LOK-A21-120SB	

These insulators are produced and tested according to IEC 61109.
It's possible to have all the other combinations, Contact us.

Transmission Composite Suspension - Tension Insulators in Silicone Rubber type ISI-LOK-* class 160 - 210 kN



Dimensions tolerance acc. to IEC 61109

Available on demand intermediate numbers of sheds

Selection Guide Line voltage (kV) 69 - 72.5	100 - 123	145 - 170	245	300 - 362	420	550	Catalogue Code (♦)	Length L (mm)	No. of Sheds A No **(1)**	Leakage distance (mm)	Dry arc distance (mm)	DRY Lightning impul. withs. 1,2/50 (kV)	WET Power freq. withs. 50 Hz (kV)	Weight (kg)
							LOK-A011-210**	850	11+10	2055	555	345	175	4,8
							LOK-A012-210**	895	12+11	2250	600	370	190	4,9
							LOK-A015-210**	1030	15+14	2805	735	430	235	5,4
							LOK-A017-210**	1120	17+16	3175	825	490	265	5,8
							LOK-A021-210**	1300	21+20	3925	1005	610	325	6,5
							LOK-A023-210**	1390	23+22	4295	1095	660	345	6,8
							LOK-A025-210**	1480	25+24	4670	1185	695	350	7,2
							LOK-A027-210**	1570	27+26	5040	1275	735	360	7,5
							LOK-A031-210**	1750	31+30	5790	1455	840	415	8,2
							LOK-A033-210**	1840	33+32	6160	1545	895	445	8,6
							LOK-A037-210**	2020	37+36	6910	1725	1010	510	9,3
							LOK-A039-210**	2110	39+38	7280	1815	1070	545	9,6
							LOK-A043-210**	2290	43+42	8030	1995	1185	610	10,3
							LOK-A047-210**	2470	47+46	8775	2175	1275	635	11,0
							LOK-A051-210**	2650	51+50	9520	2355	1365	650	11,7
							LOK-A055-210**	2830	55+54	10265	2535	1455	670	12,4
							LOK-A059-210**	3010	59+58	11015	2715	1545	690	13,1
							LOK-A061-210**	3100	61+60	11385	2805	1590	700	13,4
							LOK-A065-210**	3280	65+64	12135	2985	1680	715	14,1
							LOK-A069-210**	3460	69+68	12880	3165	1730	745	14,8
							LOK-A073-210**	3640	73+72	13625	3345	1795	780	15,5
							LOK-A075-210**	3730	75+74	14000	3435	1845	795	15,8
							LOK-A079-210**	3910	79+78	14745	3615	1945	830	16,5
							LOK-A083-210**	4090	83+82	15490	3795	2045	860	17,2
							LOK-A085-210**	4180	85+84	15865	3885	2095	880	17,6
							LOK-A087-210**	4270	87+86	16240	3975	2145	895	17,9
							LOK-A089-210**	4360	89+88	16610	4065	2190	915	18,3
							LOK-A091-210**	4450	91+90	16985	4155	2240	935	18,6
							LOK-A097-210**	4720	97+96	18105	4425	2385	995	19,7
							LOK-A101-210**	4900	101+100	18850	4605	2485	1035	20,3
							LOK-A105-210**	5080	105+104	19595	4785	4785	1075	21,0
							LOK-A107-210**	5170	107+106	19970	4875	2630	1100	21,4
							LOK-A111-210**	5350	111+110	20715	5055	2730	1140	22,1

Pollution level acc. to IEC 60815: **Medium_20 mm/kV** | **High_25 mm/kV** | **Very High_31 mm/kV** | **Extra_45 mm/kV**

NOTE : Once chosen the insulator that is the most suitable to the characteristics of the line on which you have to install it, in order to obtain the total length of the insulator (L), please, select the kind of end fitting you have to use (see page 3) and refer to the following tables :

Length deviations

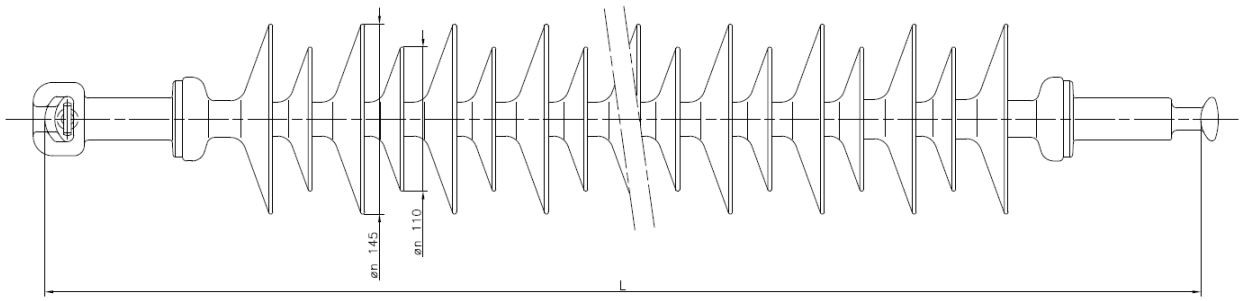
Ground fitting	Line fitting	Code **(2)**	Length change (L)
SOCKET	BALL	SB	0
CLEVIS	TONGUE	CT	+20
EYE	EYE	EE	+60
EYE	BALL	EB	+25
EYE	TONGUE	ET	+40
CLEVIS	BALL	CB	+5
Y-CLEVIS	TONGUE	YT	+25
Y-CLEVIS	EYE	YE	+45
CLEVIS	CLEVIS	CC	+20
TONGUE	TONGUE	TT	+20

Specified Mechanical Load	**SML - IEC 61109**
Routine Test Load	RTL = 50% of SML
Specified Mechanical Load (SML)	210 kN
Routine Test Load (RTL)	105 kN
Max torsion Load	90 N*m
(♦) Key to the catalog numbers	* Key : ISI-LOK- A**(1)**-210**(2)**

Example : ISI-LOK-A21-210SB

These insulators are produced and tested according to IEC 61109.
It's possible to have all the other combinations, Contact us.

Transmission Composite Suspension - Tension Insulators in Silicone Rubber type ISI-ROK-* class 70 - 120 kN



Dimensions tolerance acc. to IEC 61109

Available on demand intermediate numbers of sheds

Selection Guide Line voltage (kV) 69 - 72,5	100 - 123	145 - 170	245	300 - 362	420	550	Catalogue Code (♦)	Length L (mm)	No. of Sheds A No **(1)**	Leakage distance (mm)	Dry arc distance (mm)	DRY Lightning impul. withs. 1,2/50 (kV)	WET Power freq. withs. 50 Hz (kV)	Weight (kg)
							ROK-A007-120**	740	7+6	1780	560	365	155	3,8
							ROK-A009-120**	880	9+8	2295	700	460	195	4,3
							ROK-A010-120**	950	10+9	2550	770	515	230	4,5
							ROK-A012-120**	1090	12+11	3060	910	570	265	5,0
							ROK-A014-120**	1230	14+13	3575	1050	620	300	5,5
							ROK-A015-120**	1300	15+14	3830	1120	670	335	5,7
							ROK-A017-120**	1440	17+16	4340	1260	720	370	6,2
							ROK-A019-120**	1580	19+18	4855	1400	770	405	6,7
							ROK-A021-120**	1720	21+20	5365	1540	830	455	7,2
							ROK-A023-120**	1860	23+22	5880	1680	955	495	7,7
							ROK-A025-120**	2000	25+24	6390	1820	1035	530	8,1
							ROK-A027-120**	2140	27+26	6900	1960	1140	575	8,6
							ROK-A029-120**	2280	29+28	7415	2100	1210	605	9,1
							ROK-A031-120**	2420	31+30	7925	2240	1270	640	9,6
							ROK-A033-120**	2630	33+32	8440	2380	1330	675	10,1
							ROK-A035-120**	2700	35+34	8950	2520	1390	710	10,5
							ROK-A037-120**	2840	37+36	9460	2660	1485	725	11,0
							ROK-A039-120**	2980	39+38	9975	2800	1550	740	11,5
							ROK-A041-120**	3120	41+40	10485	2940	1615	750	12,0
							ROK-A043-120**	3260	43+42	11000	3080	1700	785	12,5
							ROK-A045-120**	3400	45+44	11510	3220	1750	815	13,0
							ROK-A047-120**	3540	47+46	12020	3360	1810	845	13,4
							ROK-A049-120**	3680	49+48	12535	3500	1875	880	13,9
							ROK-A051-120**	3820	51+50	13045	3640	1940	915	14,4
							ROK-A053-120**	3960	53+52	13560	3780	2005	350	14,9
							ROK-A055-120**	4100	55+54	14070	3920	2070	985	15,4
							ROK-A057-120**	4240	57+56	14580	4060	2135	1020	15,8
							ROK-A059-120**	4380	59+58	14840	4200	2200	1055	16,3
							ROK-A061-120**	4520	61+60	15605	4340	2265	1090	16,8
							ROK-A063-120**	4660	63+62	16120	4480	2330	1125	17,3
							ROK-A065-120**	4800	65+64	16630	4620	2395	1160	17,8
							ROK-A067-120**	4940	67+66	17140	4760	2460	1195	18,3
							ROK-A069-120**	5080	69+68	17655	4900	2525	1230	18,7

Pollution level acc. to IEC 60815: **Medium_20 mm/kV** | **High_25 mm/kV** | **Very High_31 mm/kV** | **Extra_45 mm/kV**

NOTE : Once chosen the insulator that is the most suitable to the characteristics of the line on which you have to install it, in order to obtain the total length of the insulator (L), please, select the kind of end fitting you have to use (see page 3) and refer to the following tables :

Length deviations

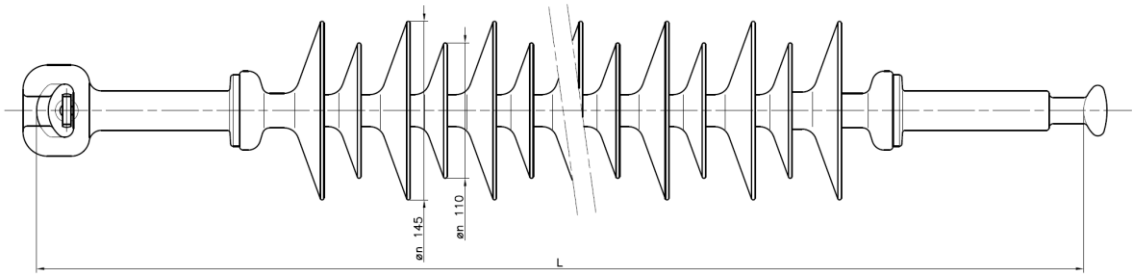
Ground fitting	Line fitting	Code **(2)**	Length change (L)
SOCKET	BALL	SB	0
CLEVIS	TONGUE	CT	+20
EYE	EYE	EE	+80
EYE	BALL	EB	+40
EYE	TONGUE	ET	+50
CLEVIS	BALL	CB	+10
Y-CLEVIS	TONGUE	YT	+30
Y-CLEVIS	EYE	YE	+60
CLEVIS	CLEVIS	CC	+20
TONGUE	TONGUE	TT	+20

Specified Mechanical Load	**SML - IEC 61109**
Routine Test Load	RTL = 50% of SML
Specified Mechanical Load (SML)	120 kN
Routine Test Load (RTL)	60 kN
Max torsion Load	90 N*m
(♦) Key to the catalog numbers	* Key : ISI-ROK- A**(1)**-120**(2)**

Example : ISI-ROK-A21-120SB

These insulators are produced and tested according to IEC 61109.
It's possible to have all the other combinations, Contact us.

Transmission Composite Suspension - Tension Insulators in Silicone Rubber type ISI-ROK-* class 160 - 210 kN



Dimensions tolerance acc. to IEC 61109

Available on demand intermediate numbers of sheds

Selection Guide Line voltage (kV) 69 - 72.5	100 - 123	145 - 170	245	300 - 362	420	550	Catalogue Code (♦)	Length L (mm)	No. of Sheds A No **(1)**	Leakage distance (mm)	Dry arc distance (mm)	DRY Lightning impul. withs. 1,2/50 (kV)	WET Power freq. withs. 50 Hz (kV)	Weight (kg)
							ROK-A007-210**	850	7+6	1780	560	365	155	4,6
							ROK-A009-210**	990	9+8	2295	700	460	195	5,0
							ROK-A010-210**	1060	10+9	2550	770	515	230	5,3
							ROK-A012-210**	1200	12+11	3060	910	570	265	5,8
							ROK-A014-210**	1340	14+13	3575	1050	620	300	6,3
							ROK-A015-210**	1410	15+14	3830	1120	670	335	6,5
							ROK-A017-210**	1550	17+16	4340	1260	720	370	7,0
							ROK-A019-210**	1690	19+18	4855	1400	770	405	7,5
							ROK-A021-210**	1830	21+20	5365	1540	830	455	8,0
							ROK-A023-210**	1970	23+22	5880	1680	955	495	8,5
							ROK-A025-210**	2110	25+24	6390	1820	1035	530	9,0
							ROK-A027-210**	2250	27+26	6900	1960	1140	575	9,5
							ROK-A029-210**	2390	29+28	7415	2100	1210	605	10,0
							ROK-A031-210**	2530	31+30	7925	2240	1270	640	10,4
							ROK-A033-210**	2670	33+32	8440	2380	1330	675	10,9
							ROK-A035-210**	2810	35+34	8950	2520	1390	710	11,4
							ROK-A037-210**	2950	37+36	9460	2660	1485	725	11,9
							ROK-A039-210**	3090	39+38	9975	2800	1550	740	12,4
							ROK-A041-210**	3230	41+40	10485	2940	1615	750	12,9
							ROK-A043-210**	3370	43+42	11000	3080	1700	785	13,4
							ROK-A045-210**	3510	45+44	11510	3220	1750	815	13,9
							ROK-A047-210**	3650	47+46	12020	3360	1810	845	14,4
							ROK-A049-210**	3790	49+48	12535	3500	1875	880	14,9
							ROK-A051-210**	3930	51+50	13045	3640	1940	915	15,4
							ROK-A053-210**	4070	53+52	13560	3780	2005	350	15,8
							ROK-A055-210**	4210	55+54	14070	3920	2070	985	16,3
							ROK-A057-210**	4350	57+56	14580	4060	2135	1020	16,8
							ROK-A059-210**	4490	59+58	14840	4200	2200	1055	17,3
							ROK-A061-210**	4630	61+60	15605	4340	2265	1090	17,8
							ROK-A063-210**	4770	63+62	16120	4480	2330	1125	18,3
							ROK-A065-210**	4910	65+64	16630	4620	2395	1160	18,8
							ROK-A067-210**	5050	67+66	17140	4760	2460	1195	19,3
							ROK-A069-210**	5190	69+68	17655	4900	2525	1230	19,8

Pollution level acc. to IEC 60815: **Medium_20 mm/kV** | **High_25 mm/kV** | **Very High_31 mm/kV** | **Extra_45 mm/kV**

NOTE : Once chosen the insulator that is the most suitable to the characteristics of the line on which you have to install it, in order to obtain the total length of the insulator (L), please, select the kind of end fitting you have to use (see page 3) and refer to the following tables :

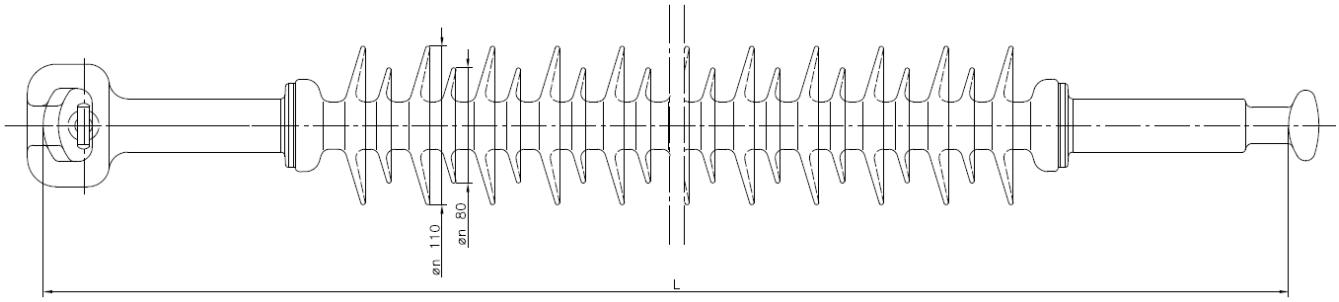
Length deviations

Ground fitting	Line fitting	Code **(2)**	Length change (L)
SOCKET	BALL	SB	0
CLEVIS	TONGUE	CT	+20
EYE	EYE	EE	+60
EYE	BALL	EB	+25
EYE	TONGUE	ET	+40
CLEVIS	BALL	CB	+5
Y-CLEVIS	TONGUE	YT	+25
Y-CLEVIS	EYE	YE	+45
CLEVIS	CLEVIS	CC	+20
TONGUE	TONGUE	TT	+20

Specified Mechanical Load	**SML - IEC 61109**
Routine Test Load	RTL = 50% of SML
Specified Mechanical Load (SML)	210 kN
Routine Test Load (RTL)	105 kN
Max torsion Load	90 N*m
(♦) Key to the catalog numbers	* Key : ISI-ROK- A**(1)**-210**(2)**
Example :ISI- ROK-A21-210SB	

These insulators are produced and tested according to IEC 61109.
It's possible to have all the other combinations, Contact us.

Transmission Composite Suspension - Tension Insulators in Silicone Rubber type ISI-TIB-* class 230 kN



Dimensions tolerance acc. to IEC 61109

Available on demand intermediate numbers of sheds

Selection Guide Line voltage (kV) 69 - 72,5	100 - 123	145 - 170	245	300 - 362	420	550	Catalogue Code (♦)	Length L (mm)	No. of Sheds A No **(1)**	Leakage distance (mm)	Dry arc distance (mm)	DRY Lightning impul. withs. 1,2/50 (kV)	WET Power freq. withs. 50 Hz (kV)	Weight (kg)
							TIB-A011-230**	865	11+10	1710	545	340	175	5,8
							TIB-A012-230**	910	12+11	1860	590	365	190	5,9
							TIB-A015-230**	1045	15+14	2325	725	425	235	6,4
							TIB-A017-230**	1135	17+16	2630	815	485	265	6,7
							TIB-A021-230**	1315	21+20	3250	995	605	325	7,3
							TIB-A023-230**	1405	23+22	3555	1085	655	345	7,6
							TIB-A025-230**	1495	25+24	3865	1175	690	350	8,0
							TIB-A027-230**	1585	27+26	4170	1265	730	360	8,3
							TIB-A031-230**	1765	31+30	4790	1445	835	415	8,9
							TIB-A033-230**	1855	33+32	5095	1535	890	445	9,2
							TIB-A037-230**	2035	37+36	5710	1715	1005	510	9,8
							TIB-A039-230**	2125	39+38	6020	1805	1065	545	10,2
							TIB-A043-230**	2305	43+42	6635	1985	1180	610	10,8
							TIB-A047-230**	2485	47+46	7255	2165	1270	635	11,4
							TIB-A051-230**	2665	51+50	7870	2345	1360	650	12,0
							TIB-A055-230**	2845	55+54	8485	2525	1450	670	12,7
							TIB-A059-230**	3025	59+58	9100	2705	1540	690	13,3
							TIB-A061-230**	3115	61+60	9410	2795	1585	700	13,6
							TIB-A065-230**	3295	65+64	10025	2975	1675	715	14,3
							TIB-A069-230**	3475	69+68	10640	3155	1725	745	14,9
							TIB-A073-230**	3655	73+72	11255	3335	1790	780	15,5
							TIB-A075-230**	3745	75+74	11565	3425	1840	795	15,8
							TIB-A079-230**	3925	79+78	12180	3605	1940	830	16,5
							TIB-A083-230**	4105	83+82	12795	3785	2040	860	17,1
							TIB-A085-230**	4195	85+84	13105	3875	2090	880	17,4
							TIB-A087-230**	4285	87+86	13415	3965	2140	895	17,7
							TIB-A089-230**	4375	89+88	13720	4055	2185	915	18,0
							TIB-A091-230**	4465	91+90	14030	4145	2235	935	18,3
							TIB-A097-230**	4735	97+96	14955	4415	2380	995	19,3
							TIB-A101-230**	4915	101+100	15570	4595	2480	1035	19,9
							TIB-A105-230**	5095	105+104	16185	4775	2575	1075	20,5
							TIB-A107-230**	5185	107+106	16495	4865	2625	1100	20,9
							TIB-A111-230**	5365	111+110	17110	5045	2725	1140	21,5

Pollution level acc. to IEC 60815: **Medium_20 mm/kV** | **High_25 mm/kV** | **Very High_31 mm/kV** | **Extra_45 mm/kV**

NOTE : Once chosen the insulator that is the most suitable to the characteristics of the line on which you have to install it, in order to obtain the total length of the insulator (L), please, select the kind of end fitting you have to use (see page 3) and refer to the following tables :

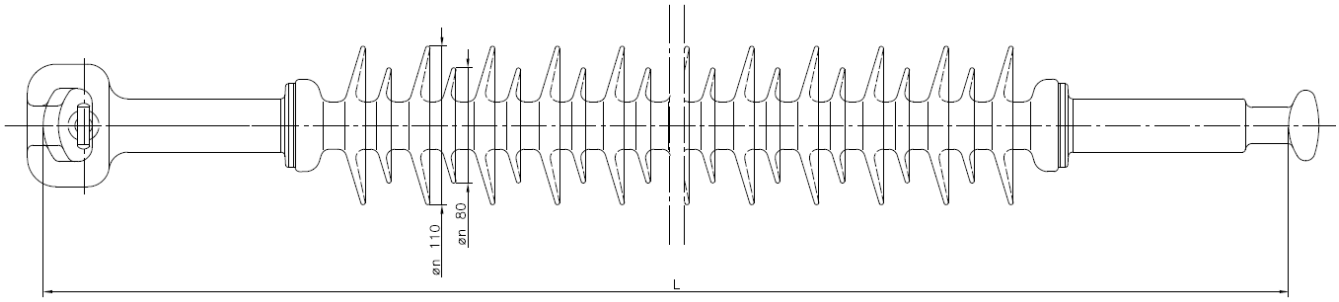
Length deviations

Ground fitting	Line fitting	Code **(2)**	Length change (L)
SOCKET	BALL	SB	0
SOCKET	SOCKET	SS	+15
CLEVIS	CLEVIS	CC	+5
CLEVIS	TONGUE	CT	+5
TONGUE	TONGUE	TT	+5

Specified Mechanical Load	**SML - IEC 61109**
Routine Test Load	RTL = 50% of SML
Specified Mechanical Load (SML)	230 kN
Routine Test Load (RTL)	115 kN
Max torsion Load	180 N*m
(♦) Key to the catalog numbers	* Key : ISI-TIB- A**(1)**-230**(2)**
Example : ISI-TIB-A21-230SB	

These insulators are produced and tested according to IEC 61109.
It's possible to have all the other combinations, Contact us.

Transmission Composite Suspension - Tension Insulators in Silicone Rubber type ISI-TIB-* class 320 kN



Dimensions tolerance acc. to IEC 61109

Available on demand intermediate numbers of sheds

Selection Guide Line voltage (kV) 69 - 72,5	100 - 123	145 - 170	245	300 - 362	420	550	Catalogue Code (♦)	Length L (mm)	No. of Sheds A No **(1)**	Leakage distance (mm)	Dry arc distance (mm)	DRY Lightning impul. withs. 1,2/50 (kV)	WET Power freq. withs. 50 Hz (kV)	Weight (kg)
							TIB-A011-320**	935	11+10	1710	545	340	175	6,0
							TIB-A012-320**	980	12+11	1860	590	365	190	6,1
							TIB-A015-320**	1115	15+14	2325	725	425	235	6,6
							TIB-A017-320**	1205	17+16	2630	815	485	265	6,9
							TIB-A021-320**	1385	21+20	3250	995	605	325	7,5
							TIB-A023-320**	1475	23+22	3555	1085	655	345	7,9
							TIB-A025-320**	1565	25+24	3865	1175	690	350	8,2
							TIB-A027-320**	1655	27+26	4170	1265	730	360	8,2
							TIB-A031-320**	1835	31+30	4790	1445	835	415	9,1
							TIB-A033-320**	1925	33+32	5095	1535	890	445	9,4
							TIB-A037-320**	2105	37+36	5710	1715	1005	510	10,1
							TIB-A039-320**	2195	39+38	6020	1805	1065	545	10,4
							TIB-A043-320**	2375	43+42	6635	1985	1180	610	11,0
							TIB-A047-320**	2555	47+46	7255	2165	1270	635	11,6
							TIB-A051-320**	2735	51+50	7870	2345	1360	650	12,3
							TIB-A055-320**	2915	55+54	8485	2525	1450	670	12,9
							TIB-A059-320**	3095	59+58	9100	2705	1540	690	13,5
							TIB-A061-320**	3185	61+60	9410	2795	1585	700	13,8
							TIB-A065-320**	3365	65+64	10025	2975	1675	715	14,5
							TIB-A069-320**	3545	69+68	10640	3155	1725	745	15,1
							TIB-A073-320**	3725	73+72	11255	3335	1790	780	15,7
							TIB-A075-320**	3815	75+74	11565	3425	1840	795	16,0
							TIB-A079-320**	3995	79+78	12180	3605	1940	830	16,7
							TIB-A083-320**	4175	83+82	12795	3785	2040	860	17,3
							TIB-A085-320**	4265	85+84	13105	3875	2090	880	17,6
							TIB-A087-320**	4355	87+86	13415	3965	2140	895	17,9
							TIB-A089-320**	4445	89+88	13720	4055	2185	915	18,2
							TIB-A091-320**	4535	91+90	14030	4145	2235	935	18,6
							TIB-A097-320**	4805	97+96	14955	4415	2380	995	19,5
							TIB-A101-320**	4985	101+100	15570	4595	2480	1035	20,1
							TIB-A105-320**	5165	105+104	16185	4775	2575	1075	20,8
							TIB-A107-320**	5255	107+106	16495	4865	2625	1100	21,1
							TIB-A111-320**	5435	111+110	17110	5045	2725	1140	21,7

Pollution level acc. to IEC 60815: **Medium_20 mm/kV** | **High_25 mm/kV** | **Very High_31 mm/kV** | **Extra_45 mm/kV**

NOTE : Once chosen the insulator that is the most suitable to the characteristics of the line on which you have to install it, in order to obtain the total length of the insulator (L), please, select the kind of end fitting you have to use (see page 3) and refer to the following tables :

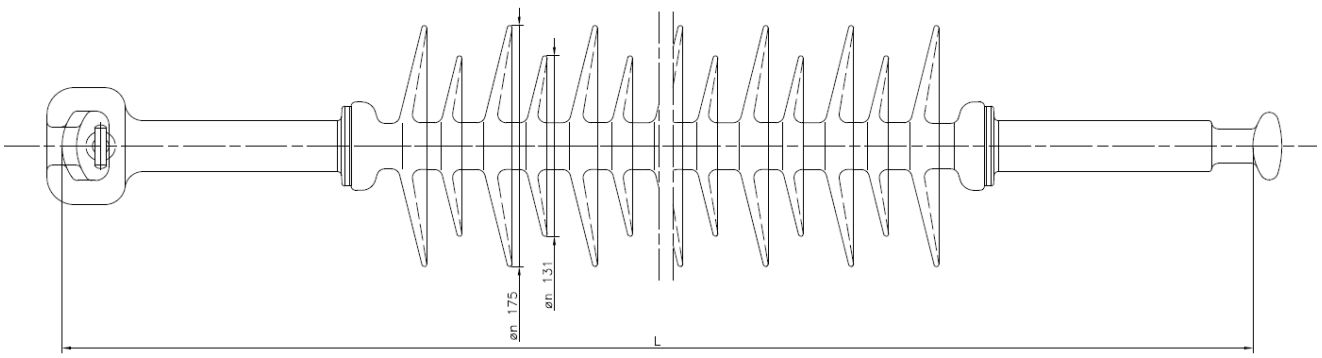
Length deviations

Ground fitting	Line fitting	Code **(2)**	Length change (L)
SOCKET	BALL	SB	0
CLEVIS	BALL	CB	+5
CLEVIS	CLEVIS	CC	+25
SOCKET	SOCKET	SS	+15

Specified Mechanical Load	**SML - IEC 61109**
Routine Test Load	RTL = 50% of SML
Specified Mechanical Load (SML)	320 kN
Routine Test Load (RTL)	160 kN
Max torsion Load	200 N*m
(♦) Key to the catalog numbers	* Key : ISI-TIB- A**(1)**-320**(2)**
Example : ISI-TIB-A21-320SB	

These insulators are produced and tested according to IEC 61109.
It's possible to have all the other combinations, Contact us.

Transmission Composite Suspension - Tension Insulators in Silicone Rubber type ISI-RON-* class 230 kN



Dimensions tolerance acc. to IEC 61109

Available on demand intermediate numbers of sheds

Selection Guide Line voltage (kV) 69 - 72,5	100 - 123	145 - 170	245	300 - 362	420	550	Catalogue Code (♦)	Length L (mm)	No. of Sheds A No **(1)**	Leakage distance (mm)	Dry arc distance (mm)	DRY Lightning impul. withs. 1,2/50 (kV)	WET Power freq. withs. 50 Hz (kV)	Weight (kg)
							RON-A009-230**	920	9+8	2500	645	360	175	7,8
							RON-A012-230**	1105	12+11	3345	830	460	225	9,0
							RON-A015-230**	1290	15+14	4190	1015	560	275	9,9
							RON-A017-230**	1415	17+16	4755	1140	635	310	10,8
							RON-A021-230**	1665	21+20	5885	1390	800	375	12,4
							RON-A023-230**	1785	23+22	6450	1510	895	410	13,2
							RON-A025-230**	1910	25+24	7015	1635	970	445	14,0
							RON-A027-230**	2035	27+26	7575	1760	1045	475	14,8
							RON-A031-230**	2285	31+30	8705	2010	1195	545	16,4
							RON-A033-230**	2405	33+32	9270	2130	1270	580	17,2
							RON-A037-230**	2655	37+36	10400	2380	1435	640	18,8
							RON-A039-230**	2780	39+38	10965	2505	1525	660	19,6
							RON-A043-230**	3025	43+42	12090	2750	1680	700	21,2
							RON-A047-230**	3275	47+46	13220	3000	1725	745	22,8
							RON-A051-230**	3525	51+50	14350	3250	1850	785	24,4
							RON-A055-230**	3770	55+54	15480	3495	2010	825	26,0
							RON-A059-230**	4020	59+58	16605	3745	2155	870	27,6
							RON-A061-230**	4145	61+60	17170	3870	2230	890	28,4
							RON-A065-230**	4390	65+64	18300	4115	2370	945	30,0
							RON-A069-230**	4640	69+68	19430	4365	2515	1005	31,6
							RON-A073-230**	4885	73+72	20555	4610	2655	1060	33,2
							RON-A075-230**	5010	75+74	21120	4735	2725	1090	34,0
							RON-A079-230**	5260	79+78	22250	4985	2870	1150	35,6
							RON-A083-230**	5505	83+82	23380	5230	3010	1205	37,2
							RON-A085-230**	5630	85+84	23945	5355	3085	1235	38,0
							RON-A087-230**	5755	87+86	24510	5480	3155	1265	38,8
							RON-A089-230**	5880	89+88	25070	5605	3225	1290	39,6
							RON-A091-230**	6005	91+90	25635	5730	3300	1320	40,5
							RON-A097-230**	6375	97+96	27330	6100	3515	1405	42,9
							RON-A101-230**	6625	101+100	28460	6350	3655	1465	44,5
							RON-A105-230**	6870	105+104	29585	6595	3800	1520	46,1
							RON-A107-230**	6995	107+106	30150	6720	3870	1550	46,6
							RON-A111-230**	7245	111+110	31280	6970	4015	1605	48,5

Pollution level acc. to IEC 60815: **Medium_20 mm/kV** | **High_25 mm/kV** | **Very High_31 mm/kV** | **Extra_45 mm/kV**

NOTE : Once chosen the insulator that is the most suitable to the characteristics of the line on which you have to install it, in order to obtain the total length of the insulator (L), please, select the kind of end fitting you have to use (see page 3) and refer to the following tables :

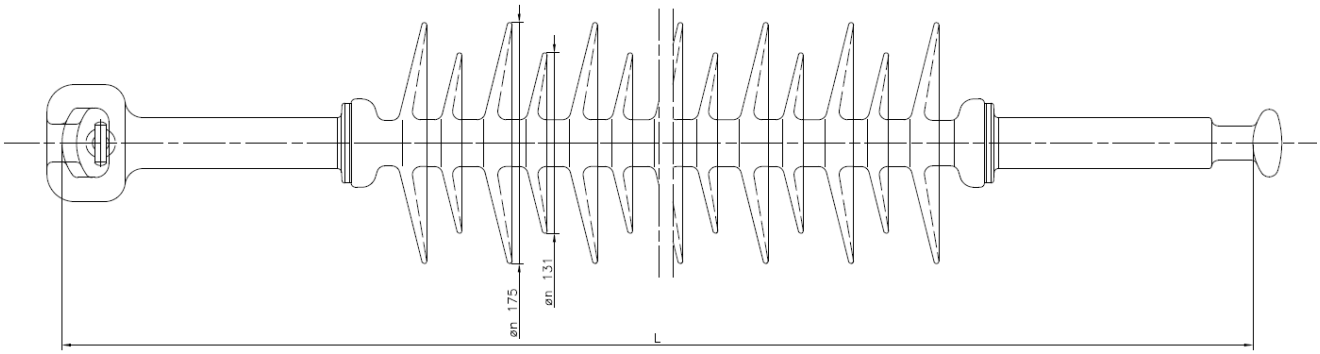
Length deviations

Ground fitting	Line fitting	Code **(2)**	Length change (L)
SOCKET	BALL	SB	0
SOCKET	SOCKET	SS	+15
CLEVIS	CLEVIS	CC	+5
CLEVIS	TONGUE	CT	+5
TONGUE	TONGUE	TT	+5

Specified Mechanical Load	**SML - IEC 61109**
Routine Test Load	RTL = 50% of SML
Specified Mechanical Load (SML)	230 kN
Routine Test Load (RTL)	115 kN
Max torsion Load	180 N*m
(♦) Key to the catalog numbers	* Key : ISI-RON- A**(1)**-230**(2)**
Example : ISI-RON-A21-230SB	

These insulators are produced and tested according to IEC 61109
It's possible to have all the other combinations, Contact us.

Transmission Composite Suspension - Tension Insulators in Silicone Rubber type ISI-RON-* class 320 kN



Dimensions tolerance acc. to IEC 61109

Available on demand intermediate numbers of sheds

Selection Guide Line voltage (kV) 69 - 72,5	100 - 123	145 - 170	245	300 - 362	420	550	Catalogue Code (♦)	Length L (mm)	No. of Sheds A No **(1)**	Leakage distance (mm)	Dry arc distance (mm)	DRY Lightning impul. withs. 1,2/50 (kV)	WET Power freq. withs. 50 Hz (kV)	Weight (kg)
							RON-A009-320**	990	9+8	2500	645	360	175	7,8
							RON-A012-320**	1175	12+11	3345	830	460	225	9,0
							RON-A015-320**	1360	15+14	4190	1015	560	275	10,2
							RON-A017-320**	1485	17+16	4755	1140	635	310	11,0
							RON-A021-320**	1735	21+20	5885	1390	800	375	12,6
							RON-A023-320**	1855	23+22	6450	1510	895	410	13,4
							RON-A025-320**	1980	25+24	7015	1635	970	445	14,2
							RON-A027-320**	2105	27+26	7575	1760	1045	475	15,0
							RON-A031-320**	2355	31+30	8705	2010	1195	545	16,6
							RON-A033-320**	2475	33+32	9270	2130	1270	580	17,4
							RON-A037-320**	2725	37+36	10400	2380	1435	640	19,0
							RON-A039-320**	2850	39+38	10965	2505	1525	660	19,8
							RON-A043-320**	3095	43+42	12090	2750	1680	700	21,4
							RON-A047-320**	3345	47+46	13220	3000	1725	745	23,0
							RON-A051-320**	3595	51+50	14350	3250	1850	785	24,6
							RON-A055-320**	3840	55+54	15480	3495	2010	825	26,2
							RON-A059-320**	4090	59+58	16605	3745	2155	870	27,8
							RON-A061-320**	4215	61+60	17170	3870	2230	890	28,6
							RON-A065-320**	4460	65+64	18300	4115	2370	945	30,2
							RON-A069-320**	4710	69+68	19430	4365	2515	1005	31,8
							RON-A073-320**	4955	73+72	20555	4610	2655	1060	33,4
							RON-A075-320**	5080	75+74	21120	4735	2725	1090	34,2
							RON-A079-320**	5330	79+78	22250	4985	2870	1150	35,9
							RON-A083-320**	5575	83+82	23380	5230	3010	1205	37,5
							RON-A085-320**	5700	85+84	23945	5355	3085	1235	38,3
							RON-A087-320**	5825	87+86	24510	5480	3155	1265	39,1
							RON-A089-320**	5950	89+88	25070	5605	3225	1290	39,9
							RON-A091-320**	6075	91+90	25635	5730	3300	1320	40,7
							RON-A097-320**	6445	97+96	27330	6100	3515	1405	43,1
							RON-A101-320**	6695	101+100	28460	6350	3655	1465	44,7
							RON-A105-320**	6940	105+104	29585	6595	3800	1520	46,3
							RON-A107-320**	7065	107+106	30150	6720	3870	1550	47,1
							RON-A111-320**	7315	111+110	31280	6970	4015	1605	48,7

Pollution level acc. to IEC 60815: **Medium_20 mm/kV** | **High_25 mm/kV** | **Very High_31 mm/kV** | **Extra_45 mm/kV**

NOTE : Once chosen the insulator that is the most suitable to the characteristics of the line on which you have to install it, in order to obtain the total length of the insulator (L), please, select the kind of end fitting you have to use (see page 3) and refer to the following tables :

Length deviations

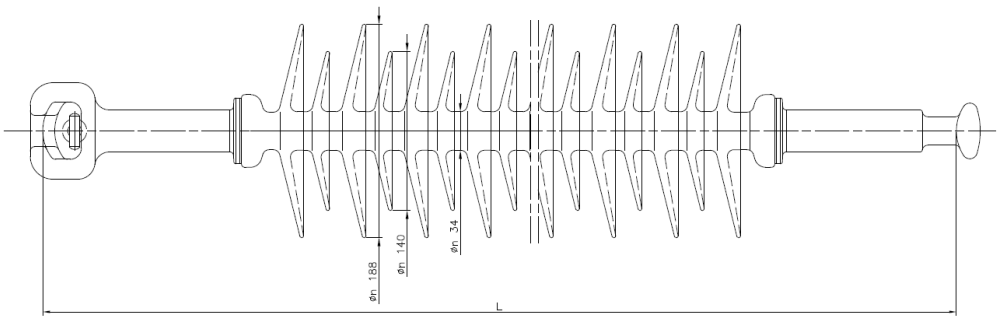
Ground fitting	Line fitting	Code **(2)**	Length change (L)
SOCKET	BALL	SB	0
CLEVIS	BALL	CB	+5
CLEVIS	CLEVIS	CC	+25
SOCKET	SOCKET	SS	+15

Specified Mechanical Load	**SML - IEC 61109**
Routine Test Load	RTL = 50% of SML
Specified Mechanical Load (SML)	320 kN
Routine Test Load (RTL)	160 kN
Max torsion Load	200 N*m
(♦) Key to the catalog numbers	* Key : ISI-RON- A**(1)**-320**(2)**

Example : ISI-RON-A21-320SB

These insulators are produced and tested according to IEC 61109.
It's possible to have all the other combinations, Contact us.

Transmission Composite Suspension - Tension Insulators in Silicone Rubber type ISI-VEN-* class 230 kN



Dimensions tolerance acc. to IEC 61109

Available on demand intermediate numbers of sheds

Selection Guide Line voltage (kV) 69 - 72.5	100 - 123	145 - 170	245	300 - 362	420	550	Catalogue Code (♦)	Length L (mm)	No. of Sheds A No **(1)**	Leakage distance (mm)	Dry arc distance (mm)	DRY Lightning impul. withs. 1,2/50 (kV)	WET Power freq. withs. 50 Hz (kV)	Weight (kg)
							VEN-A009-230**	860	9+8	2625	595	330	160	7,8
							VEN-A012-230**	1025	12+11	3515	760	420	205	9,1
							VEN-A015-230**	1190	15+14	4405	925	510	250	10,4
							VEN-A017-230**	1300	17+16	5000	1035	575	280	11,3
							VEN-A021-230**	1520	21+20	6190	1255	720	340	13,0
							VEN-A023-230**	1630	23+22	6785	1365	805	370	13,9
							VEN-A025-230**	1740	25+24	7375	1475	875	400	14,7
							VEN-A027-230**	1850	27+26	7970	1585	940	430	15,6
							VEN-A031-230**	2070	31+30	9160	1805	1070	490	17,3
							VEN-A033-230**	2180	33+32	9755	1915	1140	520	18,2
							VEN-A037-230**	2400	37+36	10940	2135	1285	580	19,9
							VEN-A039-230**	1510	39+38	11535	2245	1365	610	20,8
							VEN-A043-230**	2730	43+42	12725	2465	1505	670	22,5
							VEN-A047-230**	2950	47+46	13910	2685	1540	730	24,2
							VEN-A051-230**	3170	51+50	15100	2905	1650	790	25,9
							VEN-A055-230**	3390	55+54	16290	3125	1795	850	27,7
							VEN-A059-230**	3610	59+58	17475	3345	1920	910	29,4
							VEN-A061-230**	3720	61+60	18070	3455	1990	940	30,3
							VEN-A065-230**	3940	65+64	19255	3675	2115	1000	32,0
							VEN-A069-230**	4160	69+68	20445	3895	2240	1060	33,7
							VEN-A073-230**	4380	73+72	21635	4115	2365	1120	35,4
							VEN-A075-230**	4490	75+74	22225	4225	2430	1150	36,3
							VEN-A079-230**	4710	79+78	23415	4445	2555	1210	38,0
							VEN-A083-230**	4930	83+82	24600	4665	2680	1270	39,8
							VEN-A085-230**	5040	85+84	25195	4775	2750	1300	40,6
							VEN-A087-230**	5150	87+86	25790	4885	2810	1330	41,5
							VEN-A089-230**	5260	89+88	26385	4995	2870	1360	42,4
							VEN-A091-230**	5370	91+90	26980	5105	2940	1390	43,2
							VEN-A097-230**	5700	97+96	28760	5435	3130	1480	45,8
							VEN-A101-230**	5920	101+100	29950	5655	3250	1540	47,5
							VEN-A105-230**	6140	105+104	31135	5875	3385	1600	49,3
							VEN-A107-230**	6250	107+106	31730	5985	3445	1630	50,1
							VEN-A111-230**	6470	111+110	32920	6205	3570	1690	51,9

Pollution level acc. to IEC 60815:

Medium_20 mm/kV | **High_25 mm/kV** | **Very High_31 mm/kV** | **Extra_45 mm/kV**

NOTE : Once chosen the insulator that is the most suitable to the characteristics of the line on which you have to install it, in order to obtain the total length of the insulator (L), please, select the kind of end fitting you have to use (see page 3) and refer to the following tables :

Length deviations

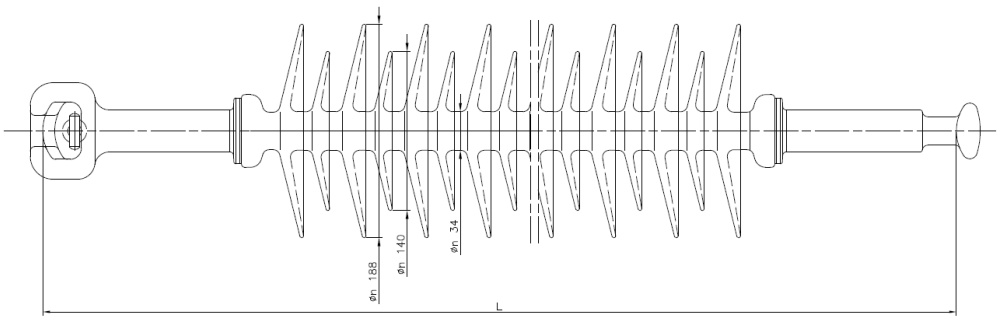
Ground fitting	Line fitting	Code **(2)**	Length change (L)
SOCKET	BALL	SB	0
SOCKET	SOCKET	SS	+15
CLEVIS	CLEVIS	CC	+5
CLEVIS	TONGUE	CT	+5
TONGUE	TONGUE	TT	+5

Specified Mechanical Load	**SML - IEC 61109**
Routine Test Load	RTL = 50% of SML
Specified Mechanical Load (SML)	230 kN
Routine Test Load (RTL)	115 kN
Max torsion Load	180 N*m
(♦) Key to the catalog numbers	* Key : ISI-VEN- A**(1)**-230**(2)**

Example : ISI-VEN-A21-230SB

These insulators are produced and tested according to IEC 61109.
It's possible to have all the other combinations, Contact us.

Transmission Composite Suspension - Tension Insulators in Silicone Rubber type ISI-VEN-* class 320 kN



Dimensions tolerance acc. to IEC 61109

Available on demand intermediate numbers of sheds

Selection Guide Line voltage (kV) 69 - 72.5	100 - 123	145 - 170	245	300 - 362	420	550	Catalogue Code (♦)	Length L (mm)	No. of Sheds A No **(1)**	Leakage distance (mm)	Dry arc distance (mm)	DRY Lightning impul. withs. 1,2/50 (kV)	WET Power freq. withs. 50 Hz (kV)	Weight (kg)
							VEN-A009-320**	930	9+8	2625	595	330	160	8,0
							VEN-A012-320**	1095	12+11	3515	760	420	205	9,3
							VEN-A015-320**	1260	15+14	4405	925	510	250	10,6
							VEN-A017-320**	1370	17+16	5000	1035	575	280	11,5
							VEN-A021-320**	1590	21+20	6190	1255	720	340	13,2
							VEN-A023-320**	1700	23+22	6785	1365	805	370	14,1
							VEN-A025-320**	1810	25+24	7375	1475	875	400	14,9
							VEN-A027-320**	1920	27+26	7970	1585	940	430	15,8
							VEN-A031-320**	2140	31+30	9160	1805	1070	490	17,5
							VEN-A033-320**	2250	33+32	9755	1915	1140	520	18,4
							VEN-A037-320**	2470	37+36	10940	2135	1285	580	20,1
							VEN-A039-320**	2580	39+38	11535	2245	1365	610	21,0
							VEN-A043-320**	2800	43+42	12725	2465	1505	670	22,7
							VEN-A047-320**	3020	47+46	13910	2685	1540	730	24,4
							VEN-A051-320**	3240	51+50	15100	2905	1650	790	26,2
							VEN-A055-320**	3460	55+54	16290	3125	1795	850	27,9
							VEN-A059-320**	3680	59+58	17475	3345	1920	910	26,6
							VEN-A061-320**	3790	61+60	18070	3455	1990	940	30,5
							VEN-A065-320**	4010	65+64	19255	3675	2115	1000	32,2
							VEN-A069-320**	4230	69+68	20445	3895	2240	1060	33,9
							VEN-A073-320**	4450	73+72	21635	4115	2365	1120	35,7
							VEN-A075-320**	4560	75+74	22225	4225	2430	1150	36,5
							VEN-A079-320**	4780	79+78	23415	4445	2555	1210	38,3
							VEN-A083-320**	5000	83+82	24600	4665	2680	1270	40,0
							VEN-A085-320**	5110	85+84	25195	4775	2750	1300	40,8
							VEN-A087-320**	5220	87+86	25790	4885	2810	1330	41,7
							VEN-A089-320**	5330	89+88	26385	4995	2870	1360	42,6
							VEN-A091-320**	5440	91+90	26980	5105	2940	1390	43,4
							VEN-A097-320**	5770	97+96	28760	5435	3130	1480	46,0
							VEN-A101-320**	5990	101+100	29950	5655	3250	1540	47,8
							VEN-A105-320**	6210	105+104	31135	5875	3385	1600	49,5
							VEN-A107-320**	6320	107+106	31730	5985	3445	1630	50,3
							VEN-A111-320**	6430	111+110	32920	6205	3570	1690	52,1

Pollution level acc. to IEC 60815:

Medium_20 mm/kV | **High_25 mm/kV** | **Very High_31 mm/kV** | **Extra_45 mm/kV**

NOTE : Once chosen the insulator that is the most suitable to the characteristics of the line on which you have to install it, in order to obtain the total length of the insulator (L), please, select the kind of end fitting you have to use (see page 3) and refer to the following tables :

Length deviations

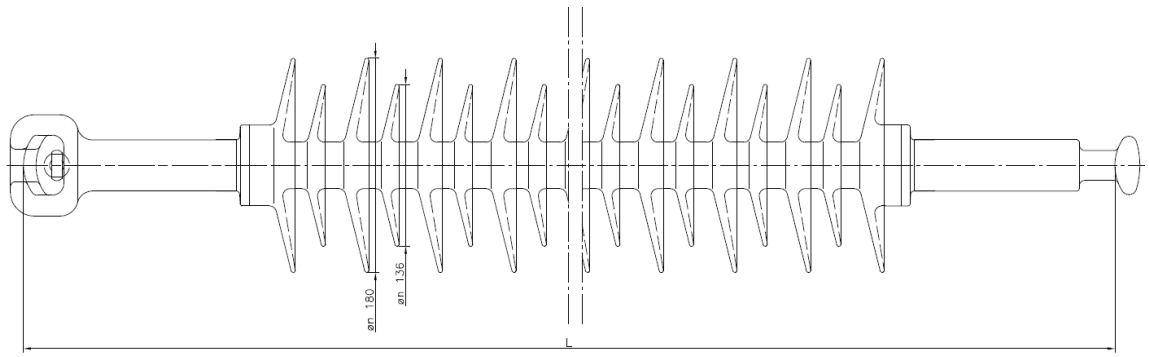
Ground fitting	Line fitting	Code **(2)**	Length change (L)
SOCKET	BALL	SB	0
CLEVIS	BALL	CB	+5
CLEVIS	CLEVIS	CC	+25
SOCKET	SOCKET	SS	+15

Specified Mechanical Load	**SML - IEC 61109**
Routine Test Load	RTL = 50% of SML
Specified Mechanical Load (SML)	320 kN
Routine Test Load (RTL)	160 kN
Max torsion Load	200 N*m
(♦) Key to the catalog numbers	* Key : ISI-VEN- A**(1)**-320**(2)**

Example : ISI-VEN-A21-320SB

These insulators are produced and tested according to IEC 61109.
It's possible to have all the other combinations, Contact us.

Transmission Composite Suspension - Tension Insulators in Silicone Rubber type ISI-ARE-* class 320 kN



Dimensions tolerance acc. to IEC 61109

Available on demand intermediate numbers of sheds

Selection Guide Line voltage (kV) 69 - 72,5	100 - 123	145 - 170	245	300 - 362	420	550	Catalogue Code (♦)	Length L (mm)	No. of Sheds A No **(1)**	Leakage distance (mm)	Dry arc distance (mm)	DRY Lightning impul. withs. 1,2/50 (kV)	WET Power freq. withs. 50 Hz (kV)	Weight (kg)
							ARE-A009-320**	920	9+8	2395	615	350	160	8,6
							ARE-A012-320**	1105	12+11	3240	800	450	210	9,9
							ARE-A015-320**	1290	15+14	4085	985	540	265	11,4
							ARE-A017-320**	1415	17+16	4650	1110	615	300	12,3
							ARE-A021-320**	1665	21+20	5780	1360	780	370	14,1
							ARE-A023-320**	1785	23+22	6340	1480	875	400	15,0
							ARE-A025-320**	1910	25+24	6910	1605	950	435	15,9
							ARE-A027-320**	2035	27+26	7475	1730	1025	470	16,8
							ARE-A031-320**	2285	31+30	8605	1980	1175	535	18,6
							ARE-A033-320**	2405	33+32	9165	2100	1250	570	19,5
							ARE-A037-320**	2655	37+36	10295	2350	1415	630	21,3
							ARE-A039-320**	2780	39+38	10860	2475	1505	650	22,2
							ARE-A043-320**	3025	43+42	11985	2720	1660	685	24,0
							ARE-A047-320**	3275	47+46	13115	2970	1705	725	25,8
							ARE-A051-320**	3525	51+50	14245	3220	1830	765	27,7
							ARE-A055-320**	3770	55+54	15375	3465	1990	800	29,5
							ARE-A059-320**	4020	59+58	16505	3715	2135	835	31,3
							ARE-A061-320**	4145	61+60	17070	3840	2210	855	32,2
							ARE-A065-320**	4390	65+64	18195	4085	2350	910	34,0
							ARE-A069-320**	4640	69+68	19325	4335	2495	965	35,8
							ARE-A073-320**	4885	73+72	20450	4580	2635	1020	37,6
							ARE-A075-320**	5010	75+74	21015	4705	2705	1050	38,5
							ARE-A079-320**	5260	79+78	22145	4955	2850	1105	40,3
							ARE-A083-320**	5505	83+82	23275	5200	2990	1160	42,1
							ARE-A085-320**	5630	85+84	23840	5325	3065	1185	43,0
							ARE-A087-320**	5755	87+86	24405	5450	3135	1215	44,0
							ARE-A089-320**	5880	89+88	24970	5575	3205	1245	44,9
							ARE-A091-320**	6005	91+90	25535	5700	3280	1270	45,8
							ARE-A097-320**	6375	97+96	27225	6070	3495	1355	48,5
							ARE-A101-320**	6625	101+100	28355	6320	3635	1410	50,3
							ARE-A105-320**	6870	105+104	29480	6565	3780	1465	52,1
							ARE-A107-320**	6995	107+106	30045	6690	3850	1490	53,0
							ARE-A111-320**	7245	111+110	31180	6940	3995	1550	54,8

Pollution level acc. to IEC 60815: **Medium_20 mm/kV** | **High_25 mm/kV** | **Very High_31 mm/kV** | **Extra_45 mm/kV**

NOTE : Once chosen the insulator that is the most suitable to the characteristics of the line on which you have to install it, in order to obtain the total length of the insulator (L), please, select the kind of end fitting you have to use (see page 3) and refer to the following tables :

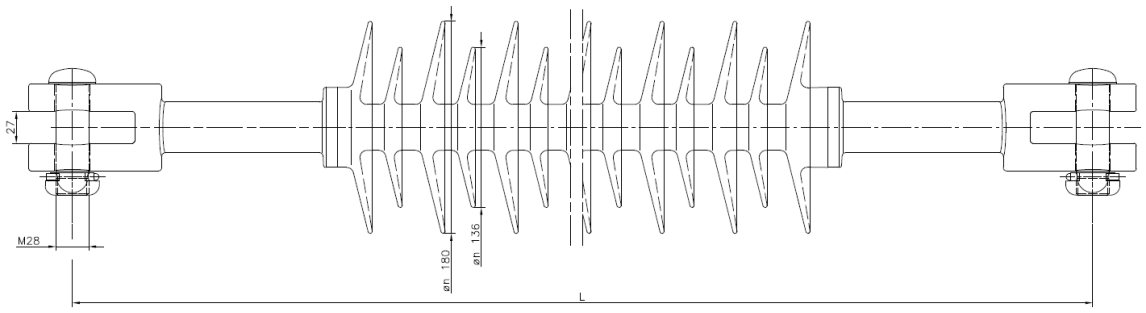
Length deviations

Ground fitting	Line fitting	Code **(2)**	Length change (L)
SOCKET	BALL	SB	0
CLEVIS	BALL	CB	+10
CLEVIS	CLEVIS	CC	+30
SOCKET	SOCKET	SS	+10

Specified Mechanical Load	**SML - IEC 61109**
Routine Test Load	RTL = 50% of SML
Specified Mechanical Load (SML)	320 kN
Routine Test Load (RTL)	160 kN
Max torsion Load	300 N*m
(♦) Key to the catalog numbers	* Key : ISI-ARE- A**(1)**-320**(2)**
Example : ISI-ARE-A21-320SB	

These insulators are produced and tested according to IEC 61109.
It's possible to have all the other combinations, Contact us.

Transmission Composite Suspension - Tension Insulators in Silicone Rubber type ISI-ARE-* class 400 kN



Dimensions tolerance acc. to IEC 61109

Available on demand intermediate numbers of sheds

Selection Guide Line voltage (kV) 69 - 72,5	100 - 123	145 - 170	245	300 - 362	420	550	Catalogue Code (♦)	Length L (mm)	No. of Sheds A No **(1)**	Leakage distance (mm)	Dry arc distance (mm)	DRY Lightning impul. withs. 1,2/50 (kV)	WET Power freq. withs. 50 Hz (kV)	Weight (kg)
							ARE-A009-400**	990	9+8	2395	615	350	160	12,8
							ARE-A012-400**	1175	12+11	3240	800	450	210	14,1
							ARE-A015-400**	1360	15+14	4085	985	540	265	15,6
							ARE-A017-400**	1485	17+16	4650	1110	615	300	16,5
							ARE-A021-400**	1735	21+20	5780	1360	780	370	18,3
							ARE-A023-400**	1855	23+22	6340	1480	875	400	19,2
							ARE-A025-400**	1980	25+24	6910	1605	950	435	20,1
							ARE-A027-400**	2105	27+26	7475	1730	1025	470	21,0
							ARE-A031-400**	2355	31+30	8605	1980	1175	535	22,8
							ARE-A033-400**	2475	33+32	9165	2100	1250	570	23,7
							ARE-A037-400**	2725	37+36	10295	2350	1415	630	25,5
							ARE-A039-400**	2850	39+38	10860	2475	1505	650	26,4
							ARE-A043-400**	3095	43+42	11985	2720	1660	685	28,2
							ARE-A047-400**	3345	47+46	13115	2970	1705	725	30,1
							ARE-A051-400**	3595	51+50	14245	3220	1830	765	31,9
							ARE-A055-400**	3840	55+54	15375	3465	1990	800	33,7
							ARE-A059-400**	4090	59+58	16505	3715	2135	835	35,5
							ARE-A061-400**	4215	61+60	17070	3840	2210	855	36,4
							ARE-A065-400**	4460	65+64	18195	4085	2350	910	38,2
							ARE-A069-400**	4710	69+68	19325	4335	2495	965	40,0
							ARE-A073-400**	4955	73+72	20450	4580	2635	1020	41,8
							ARE-A075-400**	5080	75+74	21015	4705	2705	1050	42,7
							ARE-A079-400**	5330	79+78	22145	4955	2850	1105	44,5
							ARE-A083-400**	5575	83+82	23275	5200	2990	1160	46,4
							ARE-A085-400**	5700	85+84	23840	5325	3065	1185	47,3
							ARE-A087-400**	5825	87+86	24405	5450	3135	1215	48,2
							ARE-A089-400**	5950	89+88	24970	5575	3205	1245	49,1
							ARE-A091-400**	6075	91+90	25535	5700	3280	1270	50,0
							ARE-A097-400**	6445	97+96	27225	6070	3495	1355	52,7
							ARE-A101-400**	6695	101+100	28355	6320	3635	1410	54,5
							ARE-A105-400**	6940	105+104	29480	6565	3780	1465	56,3
							ARE-A107-400**	7065	107+106	30045	6690	3850	1490	57,2
							ARE-A111-400**	7315	111+110	31180	6940	3995	1550	59,0

Pollution level acc. to IEC 60815: **Medium_20 mm/kV** | **High_25 mm/kV** | **Very High_31 mm/kV** | **Extra_45 mm/kV**

NOTE : Once chosen the insulator that is the most suitable to the characteristics of the line on which you have to install it, in order to obtain the total length of the insulator (L), please, select the kind of end fitting you have to use (see page 3) and refer to the following tables :

Length deviations

Ground fitting	Line fitting	Code **(2)**	Length change (L)
CLEVIS	CLEVIS	CC	0

Specified Mechanical Load	**SML - IEC 61109**
Routine Test Load	RTL = 50% of SML
Specified Mechanical Load (SML)	400 kN
Routine Test Load (RTL)	200 kN
Max torsion Load	300 N*m

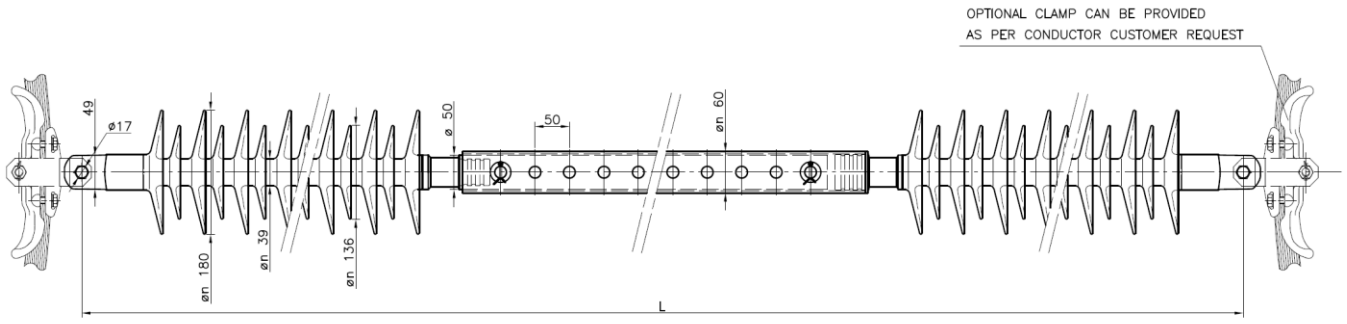
(♦) Key to the catalog numbers * Key : ISI-ARE- A**(1)**-400**(2)**

Example : ISI-ARE-A21-400CC

These insulators are produced and tested according to IEC 61109.
It's possible to have all the other combinations, Contact us.

Phase Spacer

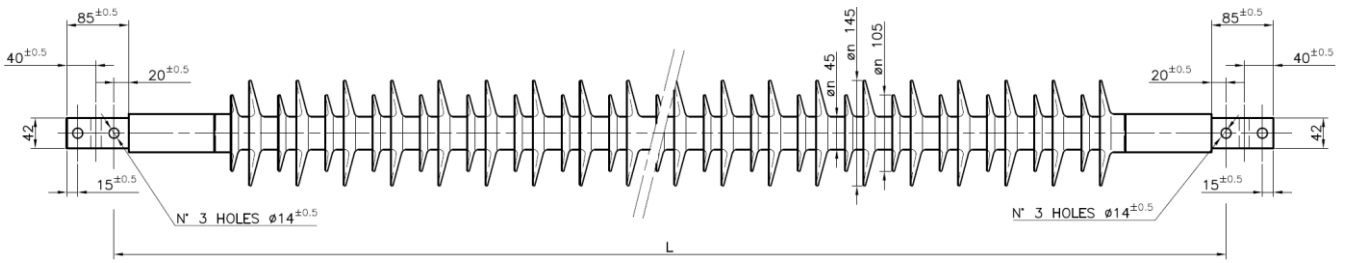
High Voltage With Adjustable Length



Dimensions tolerance acc. to IEC 61109 Available on demand intermediate numbers of sheds

Length of the Spacer: Minimum L = 1000 mm to Maximum L = 6500 mm
Suitable for U*m* in range between 72.5 kV to 420 kV Specified Mechanical Load (SML) = 70 kN
The values of Creepage Distance, Arcing Distance, Dry Lightning Impulse Withstand Voltage, Wet Power Frequency Withstand Voltage are according to the length of the Spacer and customer request.

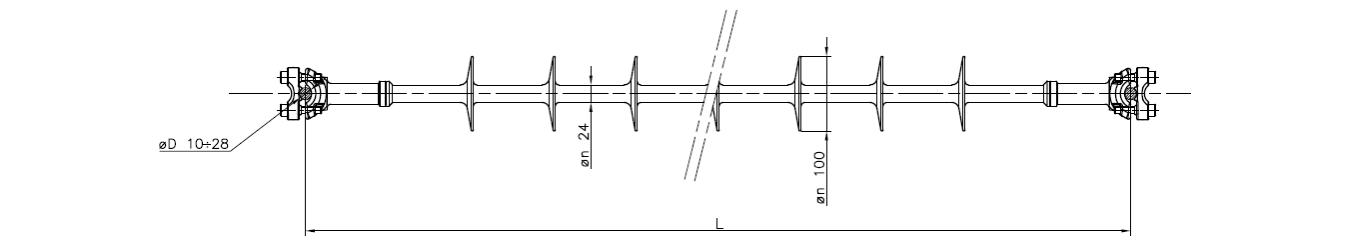
High Voltage With Fixed Length



Dimensions tolerance acc. to IEC 61109 Available on demand intermediate numbers of sheds

Length of the Spacer: Minimum L = 1000 mm to Maximum L = 6500 mm
Suitable for U*m* in range between 72.5 kV to 420 kV Specified Mechanical Load (SML) = 160 kN
The values of Creepage Distance, Arcing Distance, Dry Lightning Impulse Withstand Voltage, Wet Power Frequency Withstand Voltage are according to the length of the Spacer and customer request.

Medium Voltage With Fixed Length



Dimensions tolerance acc. to IEC 61109 Available on demand intermediate numbers of sheds

Length of the Spacer: Minimum L = 500 mm to Maximum L = 1800 mm
Suitable for U*m* in range between 12 kV to 52 kV Specified Mechanical Load (SML) = 70 kN
The values of Creepage Distance, Arcing Distance, Dry Lightning Impulse Withstand Voltage, Wet Power Frequency Withstand Voltage are according to the length of the Spacer and customer request.

COMPOSITE POST INSULATORS END FITTINGS

Standard solution of galvanized steel fittings for M.V. post insulators

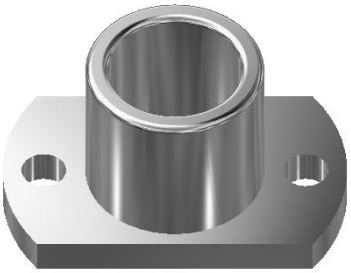
Circular PCD 76 mm

(R)



Oval PCD 76 mm

(F)



Clamp fitting

(C)



Pin Groove R12 mm **(P1)**

Pin Groove R16 mm **(P2)**



Pin Groove F-neck

(F-neck)



Lower fitting

(D)



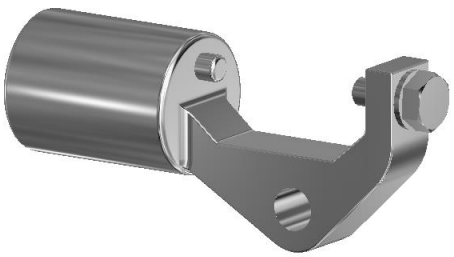
Vertical clamp

(VC)



Horizontal clamp

(HC)

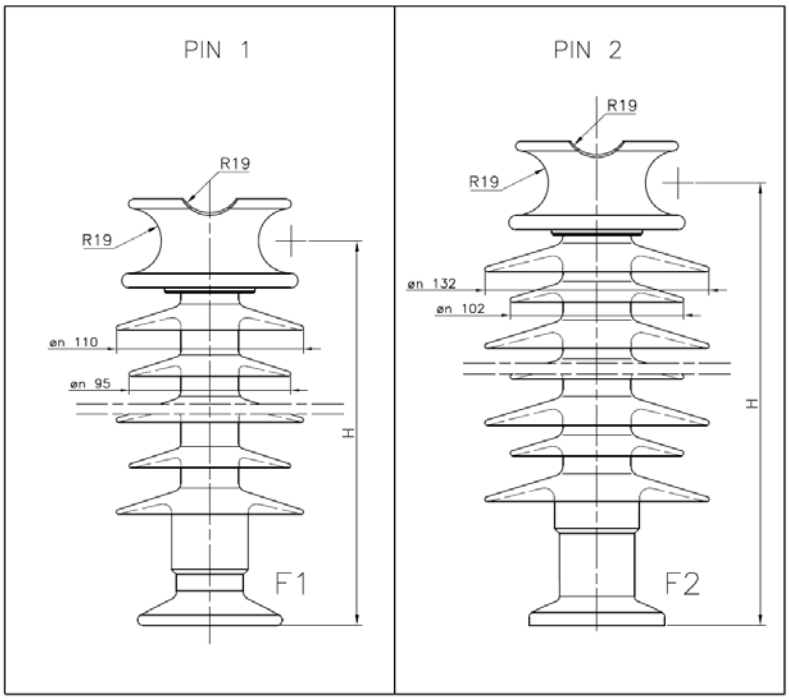


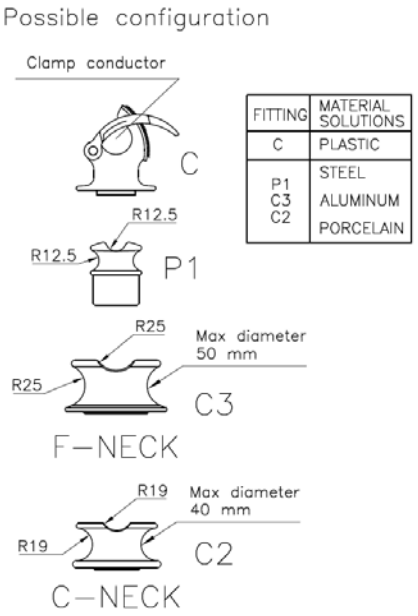
Threaded fitting

(M)



Composite Vertical Post (Pin) Insulators in Silicone Rubber type PIN*





Dimensions tolerance acc. to IEC 61952

Available on demand intermediate numbers of sheds

Selection Guide Line voltage (kV) 12	17.5	24	36	PIN	SCL (kN)	Catalogue Code (♦)	Height H (mm)	No. of Sheds A No **(1)**	Leakage distance (mm)	Dry arc distance (mm)	DRY Lightning impul. withs. 1,2/50 (kV)	WET Power freq. withs. 50 Hz (kV)	Weight (kg)
				1	10,5	ISI-PIN-A2+2-C2F1	185	2+2	360	150	110	35	1,5
				1	8,0	ISI-PIN-A3+2-C2F1	225	3+2	475	190	135	50	1,6
				1	7,5	ISI-PIN-A3+3-C2F1	240	3+3	540	205	145	55	1,7
				2	12,5	ISI-PIN-A4+3-C2F2	260	4+3	680	215	155	60	2,2
				2	10,0	ISI-PIN-A5+4-C2F2	305	5+4	870	260	180	75	2,4
				2	8,5	ISI-PIN-A6+5-C2F2	350	6+5	1060	305	205	90	2,7

Pollution level acc. to IEC 60815: **Medium_20 mm/kV** | **High_25 mm/kV** | **Very High_31 mm/kV** | **Extra_45 mm/kV**

NOTE : Once chosen the insulator that is the most suitable to the characteristics of the line on which you have to install it, in order to obtain the total height of the insulator (H), please, select the kind of end fitting you have to use refer to the following table:

Height deviations

Line fitting	Ground fitting PIN 1	Code **(2)**	Height change (H)
C2	F1	C2F1	0
C3	F1	C3F1	+5
C	F1	CF1	+35
P1	F1	P1F1	+15

Line fitting	Ground fitting PIN 2	Code **(2)**	Height change (H)
C2	F2	C2F2	0
C3	F2	C3F2	0
C	F2	CF2	+35
P1	F2	P1F2	+15

Specified Cantilever Load	**SCL - IEC 61952**
Maximum Design Cantilever Load	MDCL = 60% of SCL
Specified Tensile Load (STL)	10 kN
Maximum design compression	20 kN
Max torsion Load	200 N*m

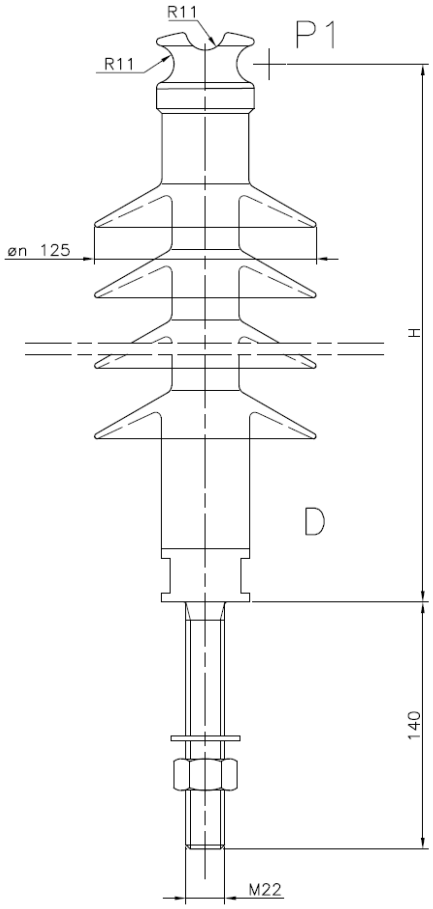
(♦) Key to the catalog numbers

* Key: ISI-PIN- A**(1)**-**(2)**
Example: ISI-PIN-A3+2-C2F1

These insulators are produced and tested according to IEC 61952.

It's possible to have other combinations, Contact us.

Composite Vertical Post (Pin) Insulators in Silicone Rubber type SAS*



Dimensions tolerance acc. to IEC 61952

Available on demand intermediate numbers of sheds

Selection Guide Line voltage (kV) 17,5	24	36	SCL (kN)	Catalogue Code (♦)	Height H (mm)	No. of Sheds A No **(1)**	Leakage distance (mm)	Dry arc distance (mm)	DRY Lightning impul. withs. 1,2/50 (kV)	WET Power freq. withs. 50 Hz (kV)	Weight (kg)
			13	ISI-SAS-A003-P1D	265	3	460	235	125	50	2,1
			12	ISI-SAS-A004-P1D	305	4	590	275	145	60	2,3
			10	ISI-SAS-A005-P1D	345	5	720	315	170	70	2,5

Pollution level acc. to IEC 60815: **Medium_20 mm/kV** | **High_25 mm/kV** | **Very High_31 mm/kV** | **Extra_45 mm/kV**

Length deviations

Line fitting	Ground fitting	Code **(2)**	Length change (L)
P1	D	P1D	0

Specified Cantilever Load	**SCL - IEC 61952**
Maximum Design Cantilever Load	MDCL = 60% of SCL
Specified Tensile Load (STL)	30 kN
Maximum design compression	20 kN
Max torsion Load	250 N*m

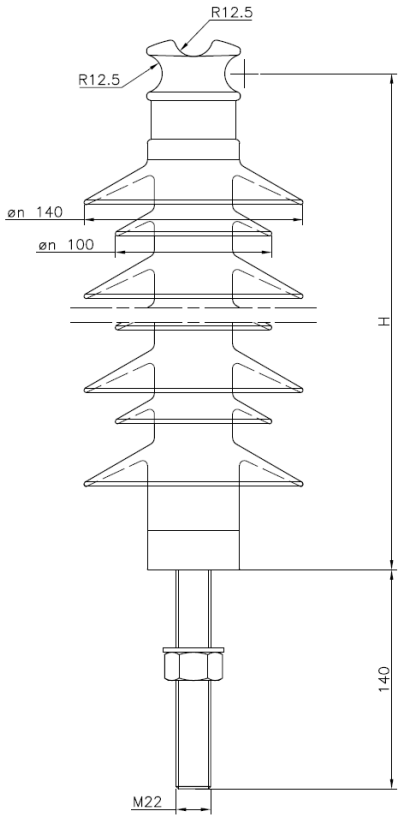
(♦) Key to the catalog numbers

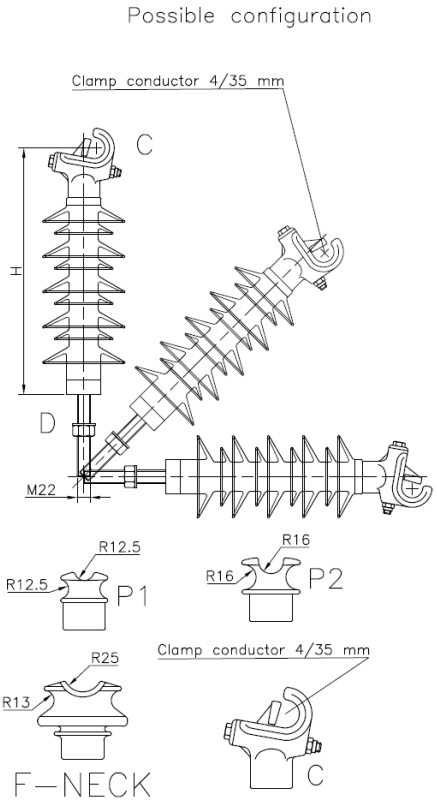
* Key: ISI-SAS- A**(1)-P1D**
Example: ISI-SAS-A002-P1D

These insulators are produced and tested according to IEC 61952.

It's possible to have other combinations, Contact us.

Composite Vertical Post (Pin) Insulators in Silicone Rubber type RG*





Dimensions tolerance acc. to IEC 61952

Available on demand intermediate numbers of sheds

Selection Guide Line voltage (kV) 12	17,5	24	36	52	SCL for pin insulator (kN)	Catalogue Code (♦)	Height H (mm)	No. of Sheds A No **(1)**	Leakage distance (mm)	Dry arc distance (mm)	DRY Lightning impul. withs. 1,2/50 (kV)	WET Power freq. withs. 50 Hz (kV)	Weight (kg)
					16,5	RG-A002-P1D	195	2+1	390	200	140	50	2,4
					12,5	RG-A003-P1D	255	3+2	590	260	170	70	2,7
					10,0	RG-A004-P1D	315	4+3	790	320	200	90	3,1
					8,5	RG-A005-P1D	375	5+4	990	380	230	110	3,4
					7,5	RG-A006-P1D	435	6+5	1190	440	255	130	3,8
					6,5	RG-A007-P1D	495	7+6	1385	500	280	150	4,2
					5,5	RG-A008-P1D	555	8+7	1585	560	300	170	4,5
					5,0	RG-A009-P1D	615	9+8	1785	620	340	190	4,9
					4,5	RG-A010-P1D	675	10+9	1985	680	375	205	5,2
					4,5	RG-A011-P1D	735	11+10	2185	740	415	220	5,6
					4,0	RG-A012-P1D	795	12+11	2380	800	455	235	6,0
					3,5	RG-A013-P1D	855	13+12	2580	860	485	250	6,3

Pollution level acc. to IEC 60815: **Medium_20 mm/kV** | **High_25 mm/kV** | **Very High_31 mm/kV** | **Extra_45 mm/kV**

NOTE : Once chosen the insulator that is the most suitable to the characteristics of the line on which you have to install it, in order to obtain the total height of the insulator (H), please, select the kind of end fitting you have to use and refer to the following table :

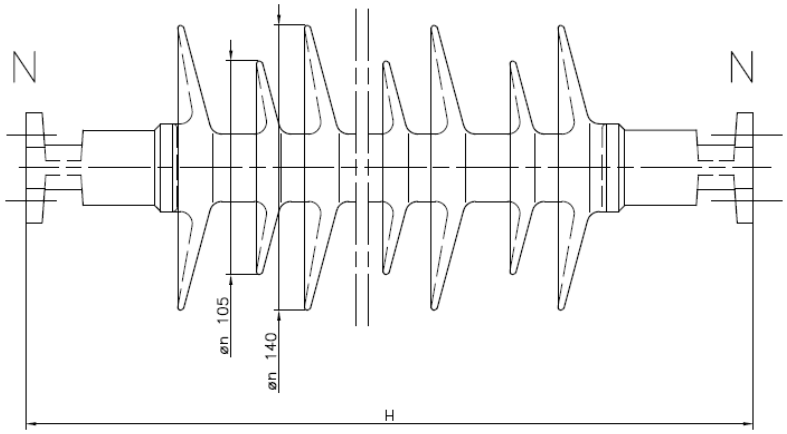
Height deviations

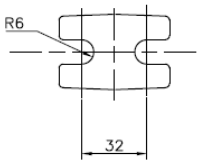
Line fitting	Ground fitting	Code **(2)**	Height change (H)
P1	D	P1D	0
P2	D	P2D	+5
F-neck	D	F-neckD	+25
C	D	CD	+45
P1	R	P1R	-5
P2	R	P2R	0
F-neck	R	F-neckR	+20
C	R	CR	+40

	SCL - IEC 61952
Specified Cantilever Load	
Maximum Design Cantilever Load	MDCL = 60% of SCL
Specified Tensile Load (STL)	40 kN
Maximum design compression	20 kN
Max torsion Load	800 N*m
(♦) Key to the catalog numbers	* Key : RG- A**(1)-(2)**
	Example : RG-A010-P1D

These insulators are produced and tested according to IEC 61952.
It's possible to have other combinations, Contact us.

Composite Vertical Post Insulators in Silicone Rubber type ISI-DEC*





Dimensions tolerance acc. to IEC 61952

Available on demand intermediate numbers of sheds

Selection Guide Line voltage (kV) 24	36	52	SCL (kN)	Catalogue Code (♦)	Height H (mm)	No. of Sheds A No **(1)**	Leakage distance (mm)	Dry arc distance (mm)	DRY Lightning impul. withs. 1,2/50 (kV)	WET Power freq. withs. 50 Hz (kV)	Weight (kg)
			5	DEC-A004-NN	355	4+3	780	285	175	70	1,9
			4	DEC-A005-NN	430	5+4	1005	350	210	105	2,2
			3	DEC-A007-NN	555	7+6	1470	475	280	135	2,7

Pollution level acc. to IEC 60815: **Medium_20 mm/kV** | **High_25 mm/kV** | **Very High_31 mm/kV** | **Extra_45 mm/kV**

Length deviations

Line fitting	Ground fitting	Code **(2)**	Length change (L)
N	N	NN	0

Specified Cantilever Load — **SCL - IEC 61952**

Maximum Design Cantilever Load — MDCL = 60% of SCL

Specified Tensile Load (STL) — 50 kN

Max torsion Load — 200 N*m

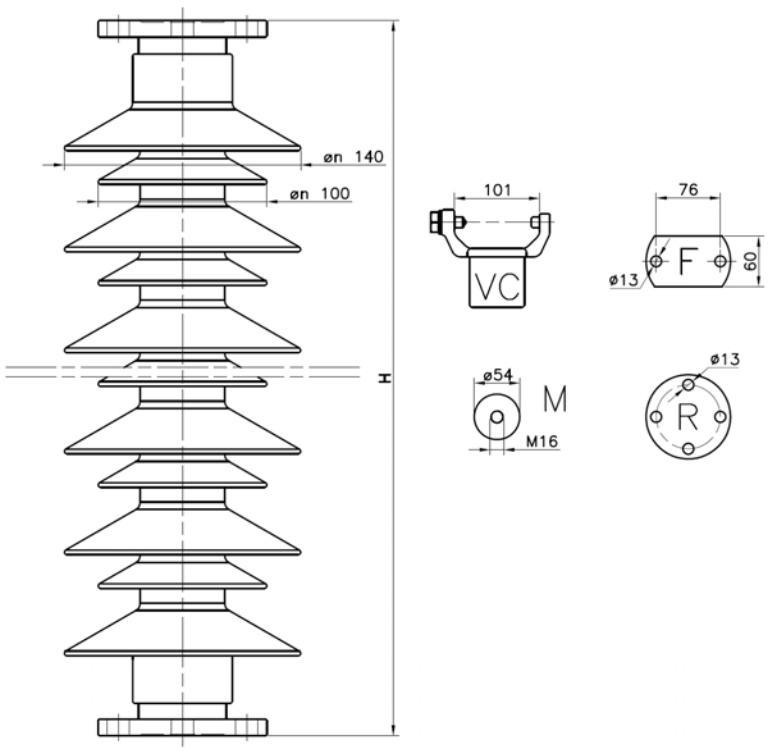
(♦) Key to the catalog numbers — * Key: ISI-DEC- A***

Example: ISI-DEC-A007-NN

These insulators are produced and tested according to IEC 61952.

It's possible to have other combinations, Contact us.

Composite Vertical Post Insulators in Silicone Rubber type FC*



Dimensions tolerance acc. to IEC 61952

Available on demand intermediate numbers of sheds

Selection Guide Line voltage (kV) 12	17,5	24	36	52	SCL (kN)	Catalogue Code (♦)	Height H (mm)	No. of Sheds A No **(1)**	Leakage distance (mm)	Dry arc distance (mm)	DRY Lightning impul. withs. 1,2/50 (kV)	WET Power freq. withs. 50 Hz (kV)	Weight (kg)
					16,2	FC-A002-RR	185	2+1	370	180	140	50	2,5
					12,2	FC-A003-RR	245	3+2	570	240	170	70	2,8
					9,8	FC-A004-RR	305	4+3	770	300	200	90	3,2
					8,2	FC-A005-RR	365	5+4	970	360	230	110	3,5
					7,1	FC-A006-RR	425	6+5	1170	420	255	130	3,9
					6,2	FC-A007-RR	485	7+6	1365	480	280	150	4,2
					5,5	FC-A008-RR	545	8+7	1565	540	300	170	4,6
					5,0	FC-A009-RR	605	9+8	1765	600	340	190	5,0
					4,5	FC-A010-RR	665	10+9	1965	660	375	205	5,3
					4,1	FC-A011-RR	725	11+10	2165	720	415	220	5,7
					3,8	FC-A012-RR	785	12+11	2365	780	455	235	6,1
					3,5	FC-A013-RR	845	13+12	2560	840	485	250	6,4

Pollution level acc. to IEC 60815: **Medium_20 mm/kV** | **High_25 mm/kV** | **Very High_31 mm/kV** | **Extra_45 mm/kV**

NOTE : Once chosen the insulator that is the most suitable to the characteristics of the line on which you have to install it, in order to obtain the total height of the insulator (H), please, select the kind of end fitting you have to use refer to the following table:

Height deviations

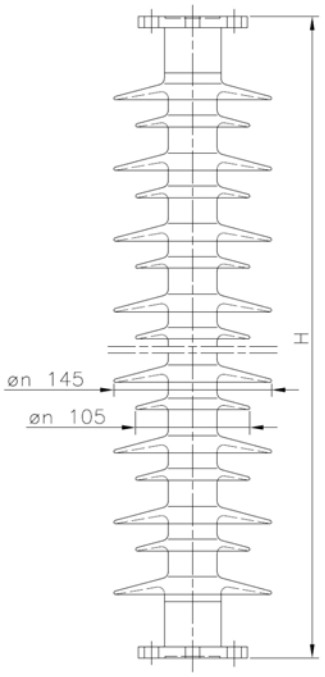
Line fitting	Ground fitting	Code **(2)**	Height change (H)
R	R	RR	0
F	R	FR	0
M	M	MM	0
M	R	MR	0
M	F	MF	0
VC	R	VCR	+55
VC	M	VCM	+55

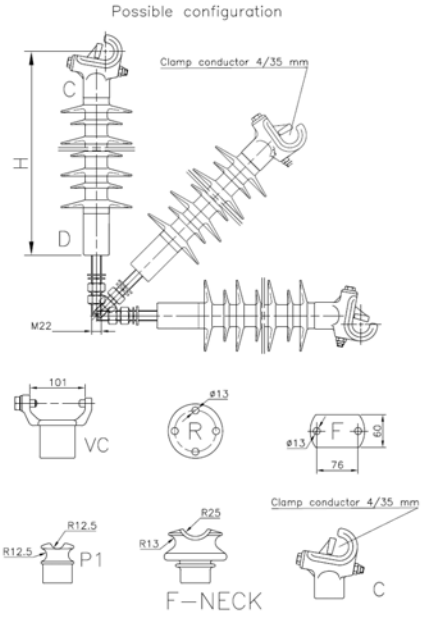
Specified Cantilever Load	**SCL - IEC 61952**
Maximum Design Cantilever Load	MDCL = 60% of SCL
Specified Tensile Load (STL)	40 kN
Maximum design compression	20 kN
Max torsion Load	800 N*m
(♦) Key to the catalog numbers	* Key: FC- A**(1)-(2)** Example: FC-A010-RR

These insulators are produced and tested according to IEC 61952.

It's possible to have other combinations, Contact us.

Composite Vertical Post Insulators in Silicone Rubber type ISI-LEO-*





Dimensions tolerance acc. to IEC 61952

Available on demand intermediate numbers of sheds

Selection Guide Line voltage (kV) 7.2	12	17.5	24	36	52	SCL (kN)	SCL for pin insulator (kN)	Catalogue Code (♦)	Height H (mm)	No. of Sheds A No **(1)**	Leakage distance (mm)	Dry arc distance (mm)	DRY Lightning impul. withs. 1,2/50 (kV)	WET Power freq. withs. 50 Hz (kV)	Weight (kg)
						20,5	12,5	LEO-A002-RR	200	2+1	325	165	95	45	2,4
						14,5	10,5	LEO-A003-RR	265	3+2	530	230	130	65	2,8
						11,0	8,5	LEO-A004-RR	330	4+3	740	295	165	90	3,1
						9,0	7,5	LEO-A005-RR	395	5+4	950	360	205	110	3,5
						7,5	6,5	LEO-A006-RR	460	6+5	1160	425	245	125	3,8
						6,5	6,0	LEO-A007-RR	525	7+6	1365	490	275	145	4,2
						6,0	5,5	LEO-A008-RR	590	8+7	1575	555	310	165	4,5
						5,0	5,0	LEO-A009-RR	655	9+8	1785	620	345	185	4,9
						4,5	4,5	LEO-A010-RR	720	10+9	1995	685	380	200	5,2
						4,0	4,0	LEO-A011-RR	785	11+10	2205	750	415	215	5,6
						4,0	4,0	LEO-A012-RR	850	12+11	2410	815	450	240	5,9

Pollution level acc. to IEC 60815: **Medium_20 mm/kV** | **High_25 mm/kV** | **Very High_31 mm/kV** | **Extra_45 mm/kV**

NOTE : Once chosen the insulator that is the most suitable to the characteristics of the line on which you have to install it, in order to obtain the total height of the insulator (H), please, select the kind of end fitting you have to use and refer to the following table :

Height deviations

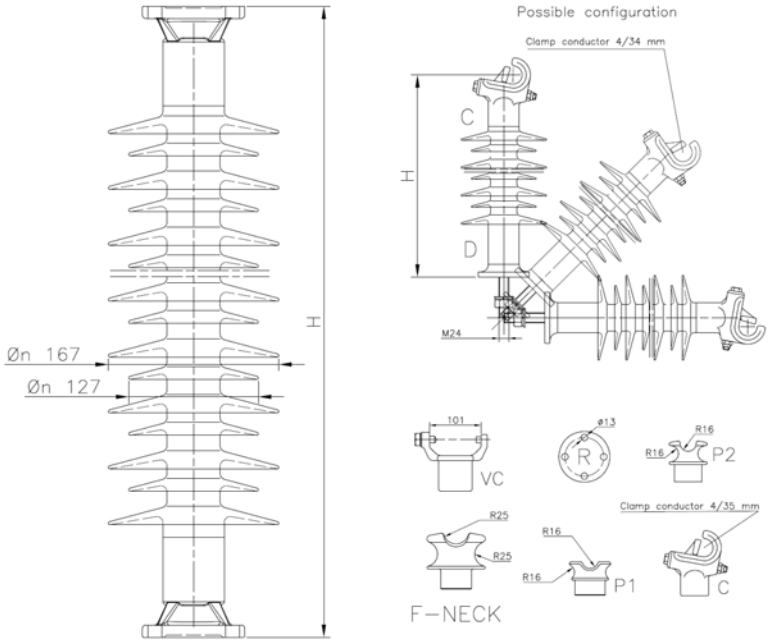
Line fitting	Ground fitting	Code **(2)**	Height change (H)
R	R	RR	0
C	R	CR	+45
VC	R	VCR	+50
F	F	FF	0
C	F	CF	+45
VC	F	VCF	+50
D	D	DD	+75
C	D	CD	+80
VC	D	VCD	+85
P1	D	P1D	+35
F-neck	D	F-neckD	+60

Specified Cantilever Load	**SCL - IEC 61952**
Maximum Design Cantilever Load	MDCL = 60% of SCL
Specified Tensile Load (STL)	40 kN
Maximum design compression	20 kN
Max torsion Load	800 N*m
(♦) Key to the catalog numbers	* Key : ISI-LEO- A**(1)-(2)**
	Example : ISI-LEO-A003-RR

These insulators are produced and tested according to IEC 61952.

It's possible to have other combinations, Contact us.

Composite Vertical Post Insulators in Silicone Rubber type ISI-RED-*



Dimensions tolerance acc. to IEC 61952

Available on demand intermediate numbers of sheds

Selection Guide Line voltage (kV) 7.2	12	17.5	24	36	52	SCL (kN)	SCL for pin insulator (kN)	Catalogue Code (♦)	Height H (mm)	No. of Sheds A No **(1)**	Leakage distance (mm)	Dry arc distance (mm)	DRY Lightning impul. withs. 1,2/50 (kV)	WET Power freq. withs. 50 Hz (kV)	Weight (kg)
						22,0	18,0	RED-A002-RR	285	2+1	355	170	95	50	5,3
						17,0	15,5	RED-A003-RR	340	3+2	585	225	130	65	5,9
						14,0	13,5	RED-A004-RR	395	4+3	815	280	160	85	6,5
						12,0	12,0	RED-A005-RR	450	5+4	1040	335	190	100	7,2
						10,0	10,5	RED-A006-RR	505	6+5	1270	390	225	120	7,8
						9,0	9,5	RED-A007-RR	560	7+6	1495	445	250	135	8,4
						8,0	9,0	RED-A008-RR	615	8+7	1725	500	280	150	9,1
						7,0	8,0	RED-A009-RR	670	9+8	1955	555	310	165	9,7
						6,5	7,5	RED-A010-RR	725	10+9	2180	610	335	180	10,3
						6,0	7,0	RED-A011-RR	780	11+10	2410	665	365	195	11,0
						5,5	6,5	RED-A012-RR	835	12+11	2640	720	400	210	11,6
						5,5	6,0	RED-A013-RR	890	13+12	2865	775	430	225	12,2
						5,0	5,5	RED-A014-RR	945	14+13	3095	830	460	245	12,8
						4,5	5,0	RED-A015-RR	1000	15+14	3325	885	490	265	13,5
						4,5	5,0	RED-A016-RR	1055	16+15	3550	940	520	285	14,1
						4,0	4,5	RED-A017-RR	1110	17+16	3780	995	555	305	14,7
						4,0	4,0	RED-A018-RR	1165	18+17	4005	1050	585	330	15,4
						3,5	4,0	RED-A019-RR	1220	19+18	4235	1105	620	350	16,0

Pollution level acc. to IEC 60815: **Medium_20 mm/kV** | **High_25 mm/kV** | **Very High_31 mm/kV** | **Extra_45 mm/kV**

NOTE : Once chosen the insulator that is the most suitable to the characteristics of the line on which you have to install it, in order to obtain the total height of the insulator (H), please, select the kind of end fitting you have to use and refer to the following table :

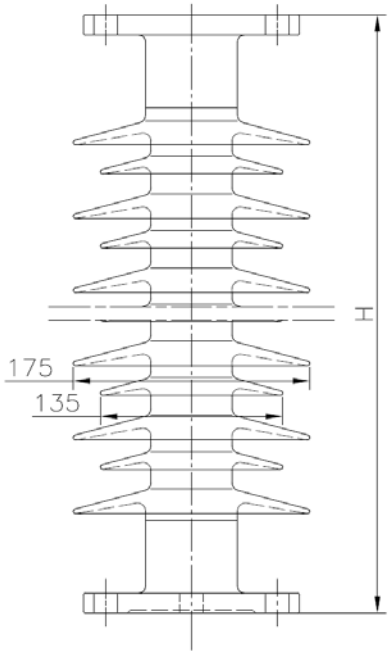
Height deviations

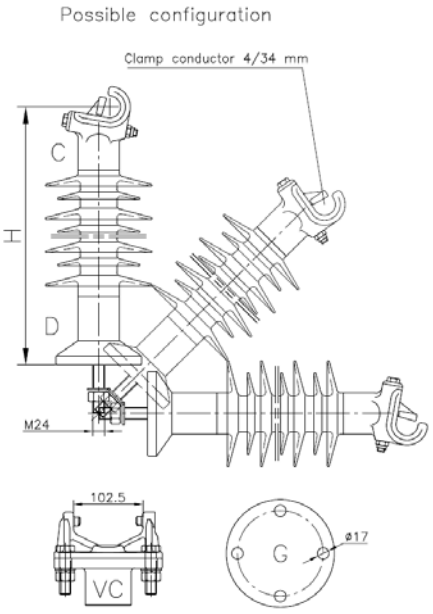
Line fitting	Ground fitting	Code **(2)**	Height change (H)
R	R	RR	0
C	R	CR	0
VC	R	VCR	+25
D	D	DD	+10
C	D	CD	+5
VC	D	VCD	+30
P1	D	P1D	-50
F-neck	D	F-neckD	-25
P2	D	P2D	-40

Specified Cantilever Load	**SCL - IEC 61952**
Maximum Design Cantilever Load	MDCL = 60% of SCL
Specified Tensile Load (STL)	70 kN
Maximum design compression	35 kN
Max torsion Load	1300 N*m
(♦) Key to the catalog numbers	* Key : ISI-RED- A**(1)**-**(2)**
	Example : ISI-RED-A003-RR

These insulators are produced and tested according to IEC 61952.
It's possible to have other combinations, Contact us.

Composite Vertical Post Insulators in Silicone Rubber type ISI-GIG-*





Dimensions tolerance acc. to IEC 61952

Available on demand intermediate numbers of sheds

Selection Guide Line voltage (kV) 7.2	12	17.5	24	36	52	SCL (kN)	SCL for pin insulator (kN)	Catalogue Code (♦)	Height H (mm)	No. of Sheds A No **(1)**	Leakage distance (mm)	Dry arc distance (mm)	DRY Lightning impul. withs. 1,2/50 (kV)	WET Power freq. withs. 50 Hz (kV)	Weight (kg)
						43,0	24	GIG-A002-GG	225	2+1	355	170	95	60	7,1
						32,5	21	GIG-A003-GG	280	3+2	585	225	130	75	7,7
						26,0	18	GIG-A004-GG	335	4+3	815	280	160	90	8,2
						22,0	15	GIG-A005-GG	390	5+4	1040	335	190	105	8,8
						19,0	14	GIG-A006-GG	445	6+5	1270	390	225	115	9,3
						16,5	12,5	GIG-A007-GG	500	7+6	1495	445	250	130	9,9
						14,5	11,5	GIG-A008-GG	555	8+7	1725	500	280	145	10,4
						13,5	10,5	GIG-A009-GG	610	9+8	1955	555	310	155	11,0
						12,0	10	GIG-A010-GG	665	10+9	2180	610	335	170	11,5
						11,0	9	GIG-A011-GG	720	11+10	2410	665	365	185	12,0
						10,5	8,5	GIG-A012-GG	775	12+11	2640	720	400	195	12,6
						9,5	8	GIG-A013-GG	830	13+12	2865	775	430	210	13,1
						9,0	7,5	GIG-A014-GG	885	14+13	3095	830	460	225	13,7
						8,5	7	GIG-A015-GG	940	15+14	3325	885	490	235	14,2
						8,0	6,5	GIG-A016-GG	995	16+15	3550	940	520	250	14,8
						7,5	6,5	GIG-A017-GG	1050	17+16	3780	995	555	270	15,3
						7,0	6	GIG-A018-GG	1105	18+17	4005	1050	585	280	15,9
						6,5	6	GIG-A019-GG	1160	19+18	4235	1105	620	295	16,4
						6,5	5,5	GIG-A020-GG	1215	20+19	4465	1160	655	315	16,9
						6,0	5,5	GIG-A021-GG	1270	21+20	4690	1215	700	325	17,5

Pollution level acc. to IEC 60815: **Medium_20 mm/kV** | **High_25 mm/kV** | **Very High_31 mm/kV** | **Extra_45 mm/kV**

NOTE : Once chosen the insulator that is the most suitable to the characteristics of the line on which you have to install it, in order to obtain the total height of the insulator (H), please, select the kind of end fitting you have to use and refer to the following table :

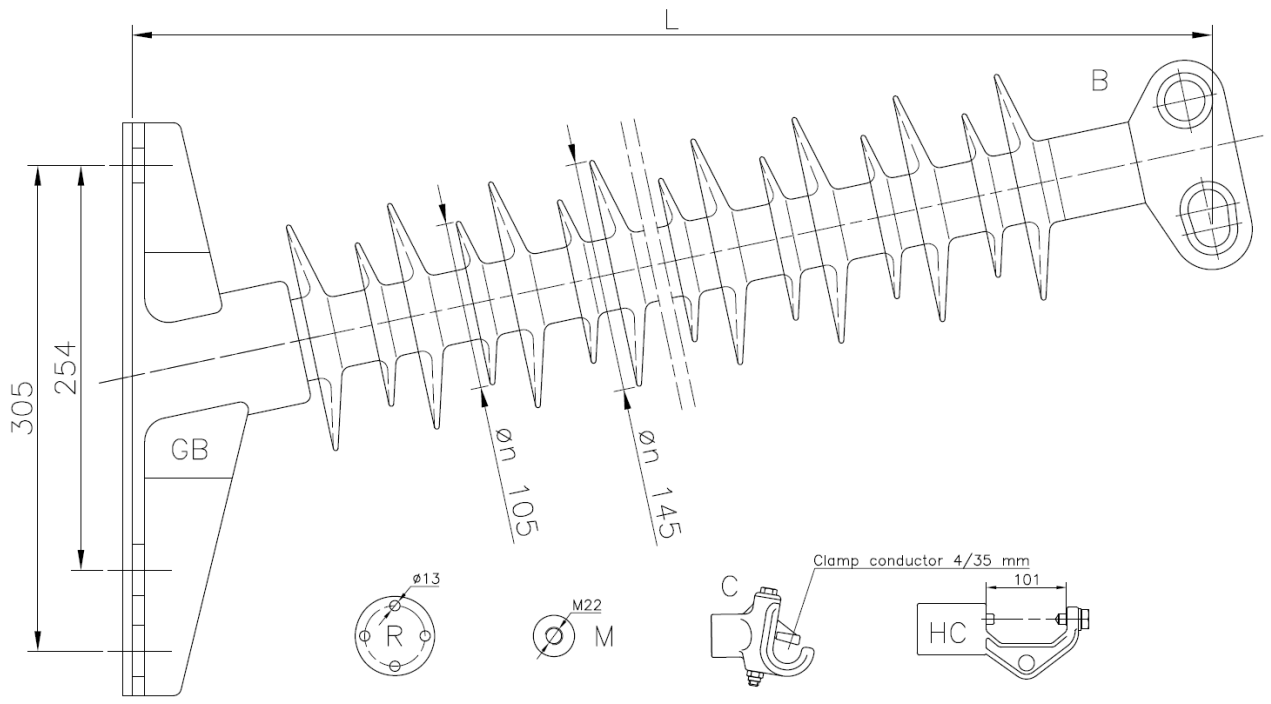
Height deviations

Line fitting	Ground fitting	Code **(2)**	Height change (H)
G	G	GG	0
C	G	CG	+40
VC	G	VCG	+55
C	D	CD	+85
VC	D	VCD	+100

Specified Cantilever Load	**SCL - IEC 61952**
Maximum Design Cantilever Load	MDCL = 60% of SCL
Specified Tensile Load (STL)	100 kN
Maximum design compression	50 kN
Max torsion Load	2000 N*m
(♦) Key to the catalog numbers	* Key : ISI-GIG - A**(1)**-**(2)** Example : ISI-GIG-A003-GG

These insulators are produced and tested according to IEC 61952.
It's possible to have other combinations, Contact us.

Composite Horizontal Post Insulators in Silicone Rubber type ISI-LEO-*



Dimensions tolerance acc. to IEC 61952

Available on demand intermediate numbers of sheds

Selection Guide Line voltage (kV) 7,2	12	17,5	24	36	52	SCL (kN)	Catalogue Code (♦)	Length H (mm)	No. of Sheds A No **(1)**	Leakage distance (mm)	Dry arc distance (mm)	DRY Lightning impul. withs. 1,2/50 (kV)	WET Power freq. withs. 50 Hz (kV)	Weight (kg)
						12,0	LEO-A002-BGB	295	2+1	325	165	95	45	9,4
						9,5	LEO-A003-BGB	360	3+2	530	230	130	65	9,8
						8,0	LEO-A004-BGB	425	4+3	740	295	165	90	10,2
						6,5	LEO-A005-BGB	490	5+4	950	360	205	110	10,6
						6,0	LEO-A006-BGB	550	6+5	1160	425	245	125	11,0
						5,0	LEO-A007-BGB	615	7+6	1365	490	275	145	11,4
						4,5	LEO-A008-BGB	680	8+7	1575	555	310	165	11,8
						4,0	LEO-A009-BGB	745	9+8	1785	620	345	185	12,2
						4,0	LEO-A010-BGB	805	10+9	1995	685	380	200	12,6
						3,5	LEO-A011-BGB	870	11+10	2205	750	415	215	13,0
						3,5	LEO-A012-BGB	935	12+11	2410	815	450	240	13,4

Pollution level acc. to IEC 60815: **Medium_20 mm/kV** | **High_25 mm/kV** | **Very High_31 mm/kV** | **Extra_45 mm/kV**

NOTE : Once chosen the insulator that is the most suitable to the characteristics of the line on which you have to install it, in order to obtain the total length of the insulator (L), please, select the kind of end fitting you have to use and refer to the following tables :

Length deviations

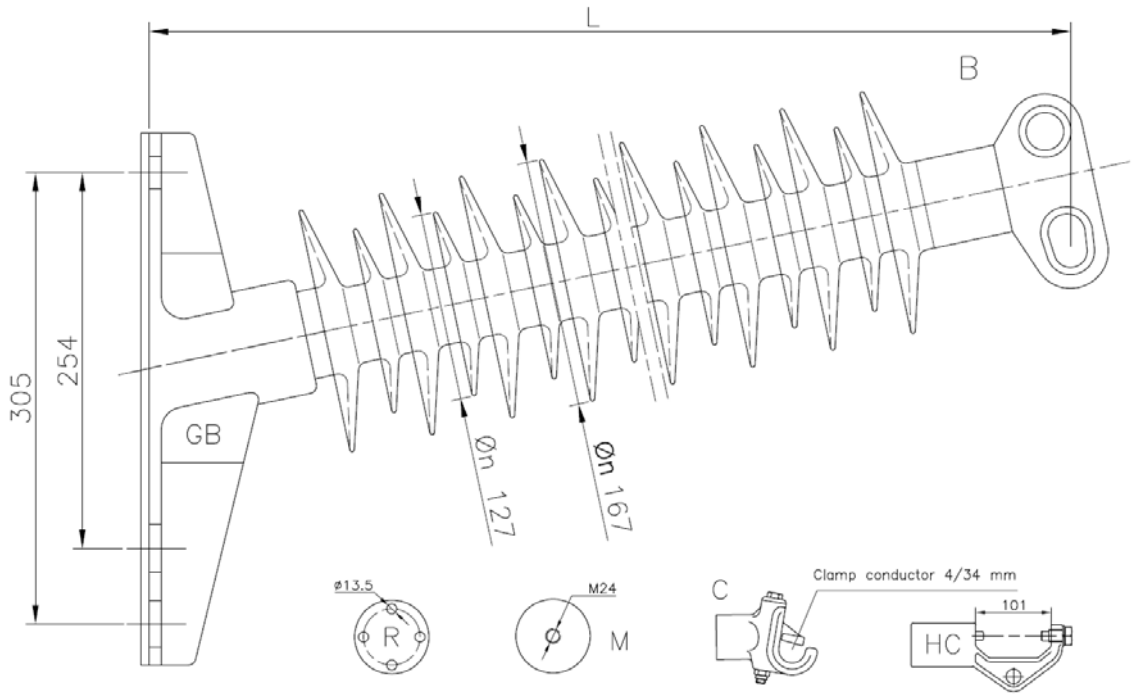
Line fitting	Ground fitting	Code **(2)**	Length change (L)	Insulator mounting angle
B	GB	BGB	0	12°
C	GB	CGB	0	12°
HC	GB	HCGB	+45	12°
C	M	CM	-20	0°
B	M	BM	-25	0°
HC	M	HCM	+20	0°
C	R	CR	-60	0°
B	R	BR	-65	0°
HC	R	HCR	-15	0°

Specified Cantilever Load	**SCL - IEC 61952**
Maximum Design Cantilever Load	MDCL = 60% of SCL
Specified Tensile Load (STL)	40 kN
Maximum design compression	20 kN
Max torsion Load	800 N*m
(♦) Key to the catalog numbers	* Key : ISI-LEO- A**(1)-(2)**
	Example : ISI-LEO-A003-BGB

These insulators are produced and tested according to IEC 61952.

It's possible to have other combinations, Contact us.

Composite Horizontal Post Insulators in Silicone Rubber type ISI-RED-*



Dimensions tolerance acc. to IEC 61952

Available on demand intermediate numbers of sheds

Selection Guide Line voltage (kV) 7.2	12	17.5	24	36	52	SCL (kN)	Catalogue Code (♦)	Length L (mm)	No. of Sheds A No **(1)**	Leakage distance (mm)	Dry arc distance (mm)	DRY Lightning impul. withs. 1,2/50 (kV)	WET Power freq. withs. 50 Hz (kV)	Weight (kg)
						15,5	RED-A002-BGB	295	2+1	355	170	95	50	9,5
						12,5	RED-A003-BGB	350	3+2	585	225	130	65	10,0
						10,5	RED-A004-BGB	405	4+3	815	280	160	85	10,5
						9,0	RED-A005-HGB	455	5+4	1040	335	190	100	11,0
						8,0	RED-A006-BGB	510	6+5	1270	390	225	120	11,5
						7,5	RED-A007-BGB	565	7+6	1495	445	250	135	12,0
						6,5	RED-A008-BGB	620	8+7	1725	500	280	150	12,5
						6,0	RED-A009-BGB	670	9+8	1955	555	310	165	12,5
						5,5	RED-A010-BGB	725	10+9	2180	610	335	180	13,0
						5,0	RED-A011-BGB	780	11+10	2410	665	365	195	13,5
						4,5	RED-A012-BGB	735	12+11	2640	720	400	210	14,0
						4,5	RED-A013-BGB	885	13+12	2865	775	430	225	14,5
						4,0	RED-A014-BGB	940	14+13	3095	830	460	245	15,0
						4,0	RED-A015-BGB	995	15+14	3325	885	490	265	15,5
						3,5	RED-A016-BGB	1050	16+15	3550	940	520	285	16,0
						3,5	RED-A017-BGB	1100	17+16	3780	995	555	305	16,5
						3,5	RED-A018-BGB	1155	18+17	4005	1050	585	330	17,0
						3,0	RED-A019-BGB	1210	19+18	4235	1105	620	350	17,5

Pollution level acc. to IEC 60815: **Medium_20 mm/kV** | **High_25 mm/kV** | **Very High_31 mm/kV** | **Extra_45 mm/kV**

NOTE : Once chosen the insulator that is the most suitable to the characteristics of the line on which you have to install it, in order to obtain the total length of the insulator (L), please, select the kind of end fitting you have to use and refer to the following table :

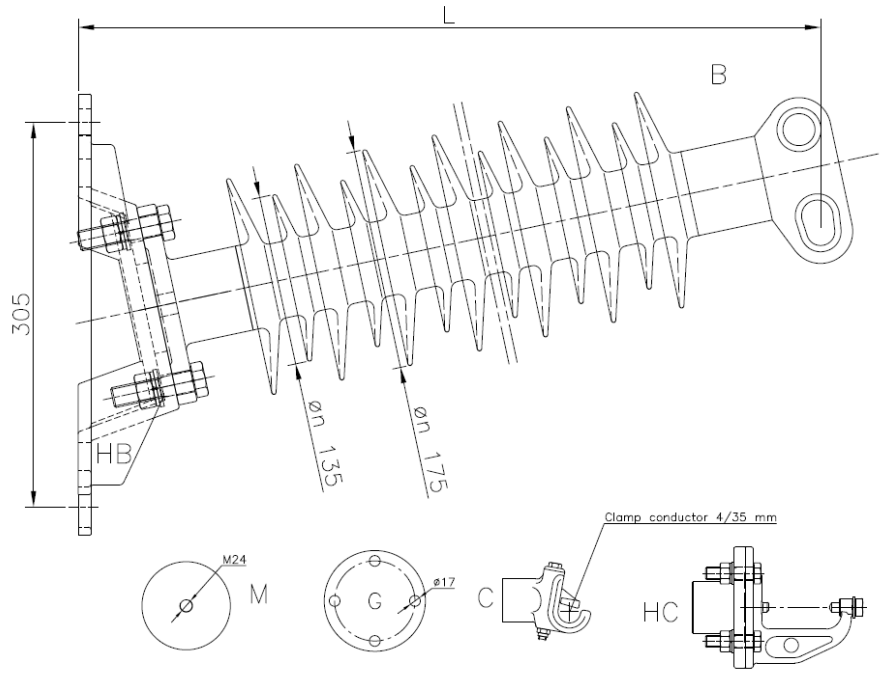
Length deviations

Line fitting	Ground fitting	Code **(2)**	Length change (L)	Insulator mounting angle
B	GB	BGB	0	12°
C	GB	CGB	+5	12°
HC	GB	HCGB	+45	12°
C	M	CM	0	0°
B	M	BM	-10	0°
HC	M	HCM	+35	0°
C	R	CR	0	0°
B	R	BR	-10	0°
HC	R	HCR	+35	0°

	SCL - IEC 61952
Specified Cantilever Load Maximum Design Cantilever Load	MDCL = 60% of SCL
Specified Tensile Load (STL)	70 kN
Maximum design compression	35 kN
Max torsion Load	1300 N*m
(♦) Key to the catalog numbers	* Key : ISI-RED- A**(1)-(2)** Example : ISI-RED-A003-BGB

These insulators are produced and tested according to IEC 61952.
It's possible to have other combinations, Contact us.

Composite Horizontal Post Insulators in Silicone Rubber type ISI-GIG-*



Dimensions tolerance acc. to IEC 61952

Available on demand intermediate numbers of sheds

Selection Guide Line voltage (kV) 7.2	12	17.5	24	36	52	SCL (kN)	Catalogue Code (♦)	Length L (mm)	No. of Sheds A No **(1)**	Leakage distance (mm)	Dry arc distance (mm)	DRY Lightning impul. withs. 1,2/50 (kV)	WET Power freq. withs. 50 Hz (kV)	Weight (kg)
						35,5	GIG-A002-BHB	320	2+1	355	170	95	60	7,9
						28,5	GIG -A003-BHB	370	3+2	585	225	130	75	9,7
						23,5	GIG -A004-BHB	425	4+3	815	280	160	90	11,5
						20,0	GIG-A005- BHB	480	5+4	1040	335	190	105	13,3
						17,5	GIG-A006- BHB	535	6+5	1270	390	225	115	15,1
						15,5	GIG-A007- BHB	585	7+6	1495	445	250	130	16,9
						14,0	GIG-A008- BHB	640	8+7	1725	500	280	145	18,7
						12,5	GIG-A009- BHB	695	9+8	1955	555	310	155	20,5
						11,0	GIG-A010- BHB	750	10+9	2180	610	335	170	22,3
						10,0	GIG-A011- BHB	800	11+10	2410	665	365	185	24,1
						9,5	GIG-A012- BHB	855	12+11	2640	720	400	195	25,9
						9,0	GIG-A013- BHB	910	13+12	2865	775	430	210	27,7
						8,5	GIG-A014- BHB	965	14+13	3095	830	460	225	29,5
						8,0	GIG-A015- BHB	1015	15+14	3325	885	490	235	31,3
						7,5	GIG-A016- BHB	1070	16+15	3550	940	520	250	33,1
						7,0	GIG-A017- BHB	1125	17+16	3780	995	555	270	34,9
						7,0	GIG-A018- BHB	1180	18+17	4005	1050	585	280	36,7
						6,5	GIG-A019- BHB	1230	19+18	4235	1105	620	295	38,5
						6,0	GIG-A020- BHB	1285	20+19	4465	1160	655	315	40,3
						6,0	GIG-A021- BHB	1340	21+20	4690	1215	700	325	42,1

Pollution level acc. to IEC 60815: **Medium_20 mm/kV** | **High_25 mm/kV** | **Very High_31 mm/kV** | **Extra_45 mm/kV**

NOTE : Once chosen the insulator that is the most suitable to the characteristics of the line on which you have to install it, in order to obtain the total length of the insulator (L), please, select the kind of end fitting you have to use and refer to the following table :

Length deviations

Line fitting	Ground fitting	Code **(2)**	Length change (L)	Insulator mounting angle
B	HB	BHB	0	12°
C	HB	CHB	+10	12°
HC	HB	HCHB	+20	12°
C	M	CM	0	0°
B	M	BM	-15	0°
HC	M	HCM	+20	0°
C	G	CR	-45	0°
B	G	BR	-60	0°
HC	G	HCR	-25	0°

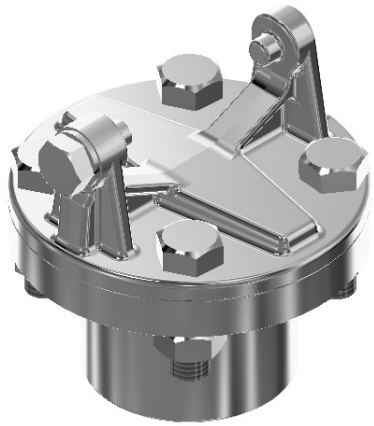
Specified Cantilever Load	**SCL - IEC 61952**
Maximum Design Cantilever Load	MDCL = 60% of SCL
Specified Tensile Load (STL)	100 kN
Maximum design compression	50 kN
Max torsion Load	2000 N*m
(♦) Key to the catalog numbers	* Key : ISI-GIG- A**(1)-(2)**
	Example : ISI-GIG-A003-BHB

These insulators are produced and tested according to IEC 61952.
It's possible to have other combinations, Contact us.

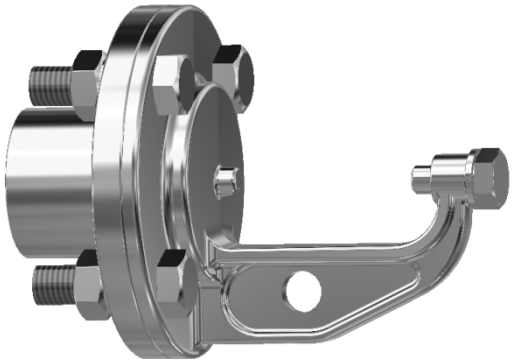
COMPOSITE POST INSULATORS END FITTINGS

Standard solution of galvanized steel fittings for H.V. post insulators

Vertical clamp (VC)



Horizontal clamp (HC)



Blade fitting (B)



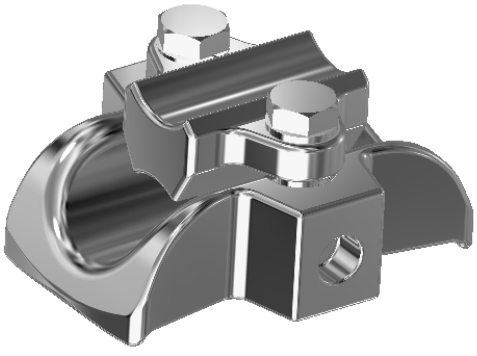
Circular fitting PCD 127 mm (G)



Horizontal Base (HB)

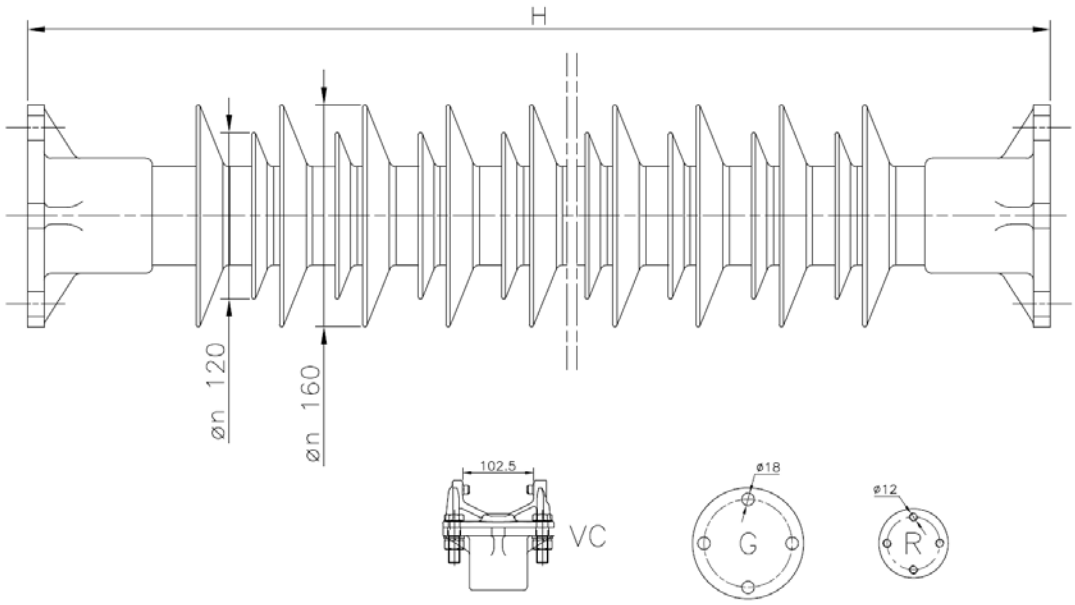


Clamp



Special fitting can be made according to customer request.

Composite Vertical Post Insulators in Silicone Rubber type ISI-BIG*



Dimensions tolerance acc. to IEC 61952

Available on demand intermediate numbers of sheds

Selection Guide Line voltage (kV)							SCL (kN)	Catalogue Code (♦)	Height H (mm)	No. of Sheds A No **(1)**	Leakage distance (mm)	Dry arc distance (mm)	DRY Lightning impul. withs. 1,2/50 (kV)	WET Power freq. withs. 50 Hz (kV)	Weight (kg)
17,5	24	36	52	69 – 72,5	100 - 170	245									
							40,0	BIG-A002-GG	315	2+1	350	175	100	60	8,5
							33,0	BIG-A003-GG	375	3+2	545	235	135	75	9,0
							28,0	BIG-A004-GG	435	4+3	730	295	160	90	10,0
							24,0	BIG-A005-GG	495	5+4	920	355	190	110	10,5
							21,5	BIG-A006-GG	555	6+5	1120	415	220	130	11,0
							19,0	BIG-A007-GG	615	7+6	1300	475	255	155	11,5
							17,5	BIG-A008-GG	475	8+7	1495	535	290	175	12,0
							16,0	BIG-A009-GG	735	9+8	1685	595	320	185	13,0
							14,5	BIG-A010-GG	795	10+9	1875	655	370	200	13,5
							12,5	BIG-A012-GG	915	12+11	2255	775	460	230	15,0
							11,0	BIG-A014-GG	1035	14+13	2635	895	500	265	16,0
							10,0	BIG-A016-GG	1155	16+15	3015	1015	560	300	17,0
							9,0	BIG-A018-GG	1275	18+17	3395	1135	615	335	18,5
							8,0	BIG-A020-GG	1395	20+19	3775	1255	670	370	19,5
							7,5	BIG-A022-GG	1515	22+21	4155	1375	725	405	21,0
							7,0	BIG-A024-GG	1635	24+23	4540	1495	830	435	22,0
							6,0	BIG-A028-GG	1875	28+27	5300	1735	940	515	24,5
							5,0	BIG-A032-GG	2115	32+31	6060	1975	1100	575	27,0
							4,5	BIG-A036-GG	2355	36+35	6820	2215	1230	640	29,5

Pollution level acc. to IEC 60815: **Medium_20 mm/kV** | **High_25 mm/kV** | **Very High_31 mm/kV** | **Extra_45 mm/kV**

NOTE : Once chosen the insulator that is the most suitable to the characteristics of the line on which you have to install it, in order to obtain the total height of the insulator (H), please, select the kind of end fitting you have to use and refer to the following table :

Height deviations

Line fitting	Ground fitting	Code **(2)**	Height change (H)
G	G	GG	0
VC	R	VCR	+105
VC	G	VCG	+65

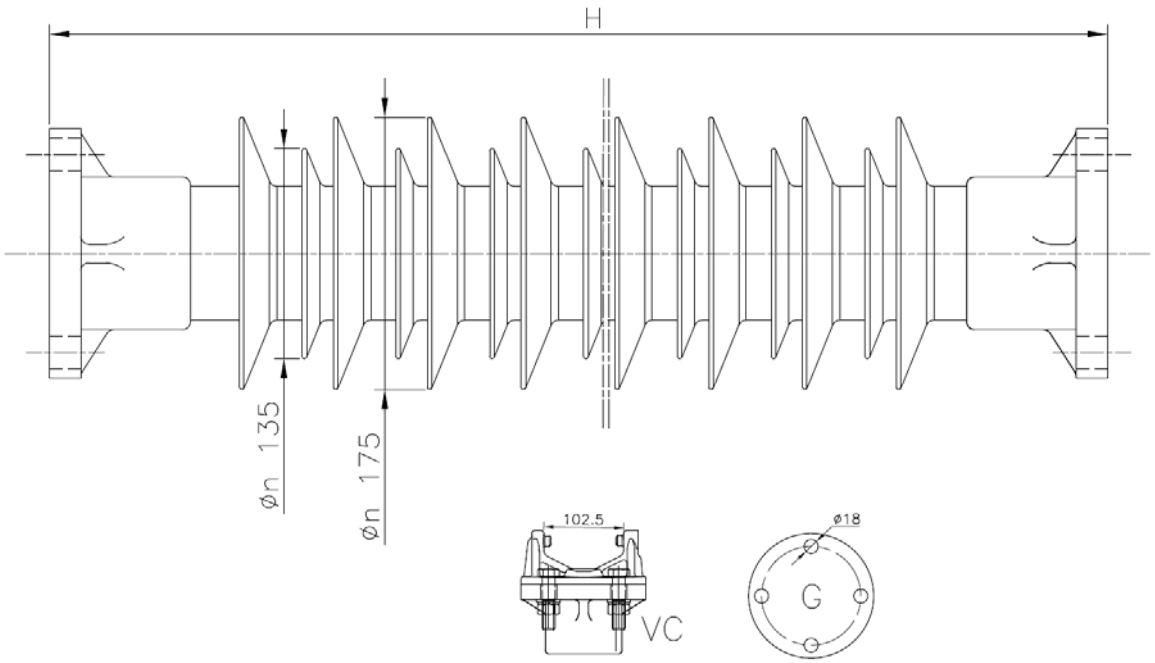
Specified Cantilever Load	**SCL - IEC 61952**
Maximum Design Cantilever Load	MDCL = 60% of SCL
Specified Tensile Load (STL)	100 kN
Maximum design compression	50 kN
Max torsion Load	3500 N*m

(♦) Key to the catalog numbers

* Key : ISI-BIG- A**(1)**-**(2)**
Example : ISI-BIG-A014-GG

These insulators are produced and tested according to IEC 61952.
It's possible to have other combinations, Contact us.

Composite Vertical Post Insulators in Silicone Rubber type ISI-MAX*



Dimensions tolerance acc. to IEC 61952

Available on demand intermediate numbers of sheds

Selection Guide voltage (kV) Line: 69 - 72.5	100-123	145-170	245	300-362	SCL (kN)	Catalogue Code (♦)	Height H (mm)	No. of Sheds A No **(1)**	Leakage distance (mm)	Dry arc distance (mm)	DRY Lightning impul. withs. 1,2/50 (kV)	WET Power freq. withs. 50 Hz (kV)	Weight (kg)
					18,5	MAX-A014-GG	1035	14+13	2745	900	500	265	21,0
					16,5	MAX-A016-GG	1155	16+15	3140	1020	560	300	22,5
					14,8	MAX-A018-GG	1275	18+17	3540	1140	615	335	24,5
					13,5	MAX-A020-GG	1395	20+19	3935	1260	670	370	26,0
					12,0	MAX-A022-GG	1515	22+21	4335	1380	725	405	27,5
					11,0	MAX-A024-GG	1635	24+23	4730	1500	830	435	29,5
					10,0	MAX-A028-GG	1875	28+27	5525	1740	940	515	32,5
					8,5	MAX-A032-GG	2115	32+31	6315	1980	1100	575	36,0
					7,0	MAX-A038-GG	2475	38+37	7510	2340	1330	675	40,5
					6,5	MAX-A043-GG	2775	43+42	8500	2640	1460	750	45,0
					6,0	MAX-A046-GG	2955	46+45	9095	2820	1585	780	47,0

Pollution level acc. to IEC 60815: **Medium_20 mm/kV** | **High_25 mm/kV** | **Very High_31 mm/kV** | **Extra_45 mm/kV**

NOTE : Once chosen the insulator that is the most suitable to the characteristics of the line on which you have to install it, in order to obtain the total height of the insulator (H), please, select the kind of end fitting you have to use and refer to the following table :

Height deviations

Line fitting	Ground fitting	Code **(2)**	Height change (H)
G	G	GG	0
VC	G	VCG	+55

Specified Cantilever Load	**SCL - IEC 61952**
Maximum Design Cantilever Load	MDCL = 60% of SCL
Specified Tensile Load (STL)	100 kN
Maximum design compression	50 kN
Max torsion Load	4000 N*m

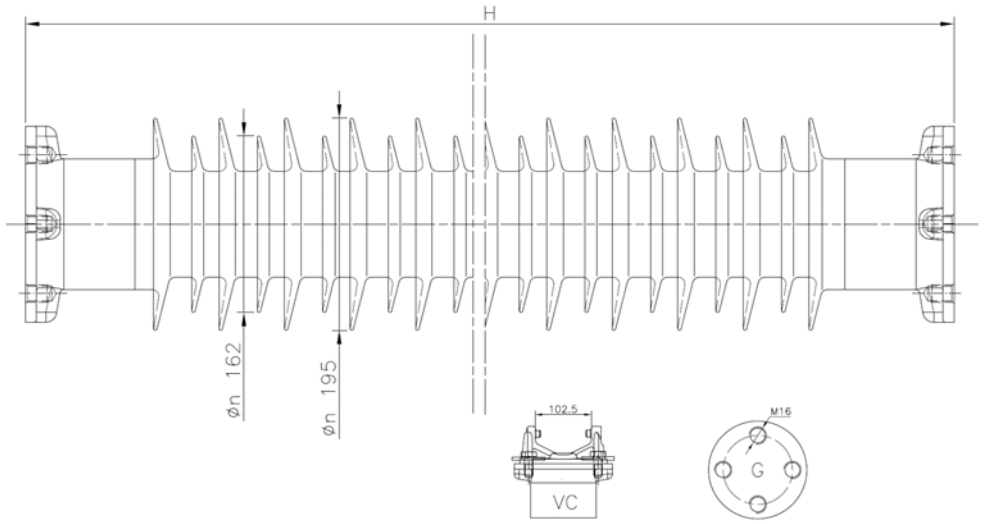
(♦) Key to the catalog numbers

* Key : ISI-MAX- A**(1)**-**(2)**
Example : ISI-MAX-A014-GG

These insulators are produced and tested according to IEC 61952.

It's possible to have other combinations, Contact us.

Composite Vertical Post Insulators in Silicone Rubber type ISI-TOR*



Dimensions tolerance acc. to IEC 61952

Available on demand intermediate numbers of sheds

Selection Guide Line voltage (kV) 52	69 – 72.5	100 - 170	245	SCL (kN)	Catalogue Code (♦)	Height H (mm)	No. of Sheds A No **(1)**	Leakage distance (mm)	Dry arc distance (mm)	DRY Lightning impul. withs. 1,2/50 (kV)	WET Power freq. withs. 50 Hz (kV)	Weight (kg)
				60,5	TOR-A008-GG	670	8+7	1535	500	280	155	22,0
				50,0	TOR-A010-GG	790	10+9	1950	620	340	190	24,5
				42,5	TOR-A012-GG	910	12+11	2360	740	410	225	26,5
				37,0	TOR-A014-GG	1030	14+13	2775	860	475	270	28,5
				33,0	TOR-A016-GG	1150	16+15	3190	980	540	310	31,0
				29,5	TOR-A018-GG	1270	18+17	3600	1100	610	340	33,0
				27,0	TOR-A020-GG	1390	20+19	4015	1220	690	375	35,5
				24,5	TOR-A022-GG	1510	22+21	4425	1340	785	405	37,5
				22,5	TOR-A024-GG	1630	24+23	4840	1460	865	430	39,5
				21,0	TOR-A026-GG	1750	26+25	5250	1580	935	460	42,0
				19,5	TOR-A028-GG	1870	28+27	5665	1700	1005	485	44,0
				18,5	TOR-A030-GG	1990	30+29	6075	1820	1085	515	46,0
				17,5	TOR-A031-GG	2050	31+30	6285	1880	1115	525	47,5
				17,0	TOR-A032-GG	2110	32+31	6490	1940	1155	540	48,5
				17,0	TOR-A033-GG	2170	33+32	6695	2000	1190	555	49,5
				16,0	TOR-A034-GG	2230	34+33	6900	2060	1225	570	50,5
				16,0	TOR-A035-GG	2290	35+34	7110	2120	1260	585	51,5
				15,5	TOR-A036-GG	2350	36+35	7315	2180	1305	595	83,5
				15,0	TOR-A037-GG	2410	37+36	7520	2240	1350	610	54,7
				14,5	TOR-A038-GG	2470	38+37	7725	2300	1395	625	56,0
				14,0	TOR-A039-GG	2530	39+38	7935	2360	1435	640	57,0

Pollution level acc. to IEC 60815: **Medium_20 mm/kV** | **High_25 mm/kV** | **Very High_31 mm/kV** | **Extra_45 mm/kV**

NOTE : Once chosen the insulator that is the most suitable to the characteristics of the line on which you have to install it, in order to obtain the total height of the insulator (H), please, select the kind of end fitting you have to use and refer to the following table :

Height deviations

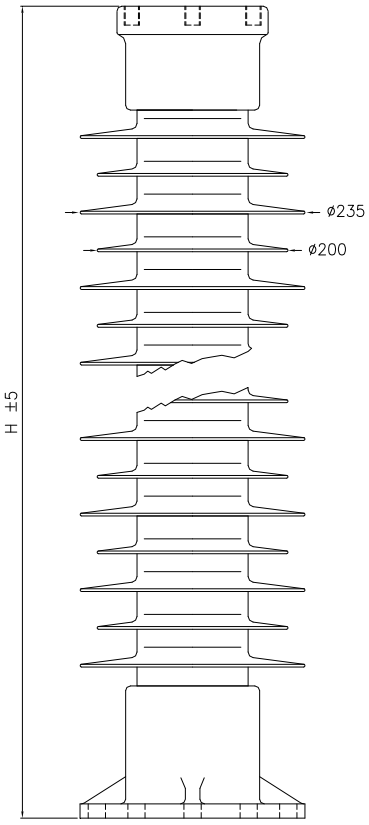
Line fitting	Ground fitting	Code **(2)**	Height change (H)
G	G	GG	0
VC	G	VCG	+55

Specified Cantilever Load	**SCL - IEC 61952**
Maximum Design Cantilever Load	MDCL = 60% of SCL
Specified Tensile Load (STL)	100 kN
Maximum design compression	100 kN
Max torsion Load	10000 N*m
(♦) Key to the catalog numbers	* Key : ISI-TOR- A**(1)**-**(2)**
	Example : ISI-TOR-A014-GG

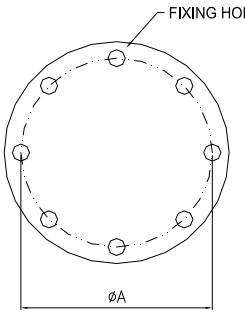
These insulators are produced and tested according to IEC 61952.

It's possible to have other combinations, Contact us.

Composite Vertical Post Insulators in Silicone Rubber type ISI-BUL*

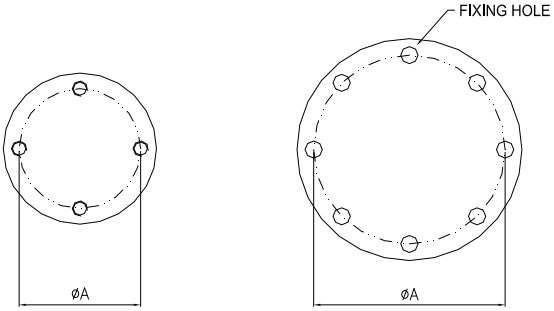


BOTTOM FLANGE



	ØA	FIXING HOLE
T 1	Ø127	n° 4 M16x15
T 2	Ø200	n° 8 Ø18
T 3	Ø225	n° 8 Ø18
T 4	Ø254	n° 8 Ø18
T 5	Ø275	n° 8 Ø18
T 6	Ø300	n° 8 Ø18
T 7	Ø325	n° 8 Ø18
T 8	Ø356	n° 8 Ø18

TOP FLANGE



	ØA	FIXING HOLE
T 1	Ø127	n° 4 M16x15
T 2	Ø200	n° 8 Ø18
T 3	Ø225	n° 8 Ø18

Dimensions tolerance acc. to IEC 61952

Available on demand intermediate numbers of sheds

Selection Guide Line voltage (kV) 123	170	245	300-362	420	SCL (kN)	Catalogue Code (♦)	Height H (mm)	No. of Sheds A No **(1)**	Leakage distance (mm)	Dry arc distance (mm)	DRY Lightning impul. withs. 1,2/50 (kV)	WET Power freq. withs. 50 Hz (kV)	Similar to IEC 60660	Weight (kg)
					27,5	BUL-A013	1260	13+12	3200	1010	570	300	≤ C20-550	48
					23,5	BUL-A016	1500	16+15	3950	1250	670	370	≤ C20-650	58
					21,0	BUL-A018	1660	18+17	4500	1410	760	405	≤ C16-750	65
					19,5	BUL-A020	1820	20+19	5000	1570	860	435	≤ C16-850	72
					16,5	BUL-A024	2140	24+23	6000	1890	950	515	≤ C12-850	87
					15,0	BUL-A026	2300	26+25	6500	2050	1120	575	≤ C12-1050	94
					13,5	BUL-A030	2620	30+29	7550	2370	1280	675	≤ C10-1175	108
					12,0	BUL-A033	2860	33+32	8300	2610	1410	750	≤ C10-1300	120
					11,0	BUL-A036	3100	36+35	9050	2850	1500	780	≤ C10-1425	130
					10,5	BUL-A039	3340	39+38	9800	3090	1610	750	≤ C8-1550	141
					9,0	BUL-A047	3980	47+46	11840	3730	1930	1020	≤ C8-1800	170
					7,5	BUL-A056	4700	56+55	14100	4450	2210	1100	≤ C6-2100	203

Pollution level acc. to IEC 60815: **Medium_20 mm/kV** | **High_25 mm/kV** | **Very High_31 mm/kV** | **Extra_45 mm/kV**

NOTE : Once chosen the insulator that is the most suitable to the characteristics of the line on which you have to install it, in order to obtain the total height of the insulator (H), please, select the kind of end fitting you have to use and refer to the following table :

Height deviations

Line fitting (Top)	Ground fitting (Bottom)	Code **(2)**	Height change (H)
Fitting T1	Fitting T2	T1T2	0
Fitting T1	Fitting T1	T1T1	-30
Fitting T1	Fitting T3	T1T3	+30
Fitting T1	Fitting T4	T1T4	+60
Fitting T3	Fitting T3	T3T3	+90
Fitting T3	Fitting T4	T3T4	+120
Fitting T3	Fitting T5	T3T5	+120
Fitting T3	Fitting T6	T3T6	+170

	SCL - IEC 61952
Specified Cantilever Load	
Maximum Design Cantilever Load	MDCL = 60% of SCL
Specified Tensile Load (STL)	100 kN
Maximum design compression	100 kN
Max torsion Load	11000 N*m
(♦) Key to the catalog numbers	* Key : ISI-BUL- A**(1)**-**(2)**
	Example : ISI-BUL-A013

These insulators are produced and tested according to IEC 61952.
It's possible to have other combinations, Contact us.

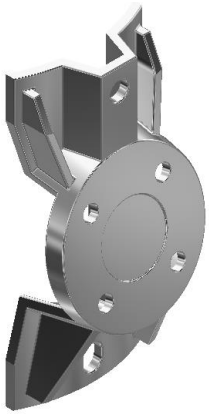
COMPOSITE HORIZONTAL POST INSULATORS BASE

Standard solution of galvanized steel fittings for H.V. post insulators

Horizontal Circular Flat Base (CBf)



Horizontal Circular Round Base (CBr)



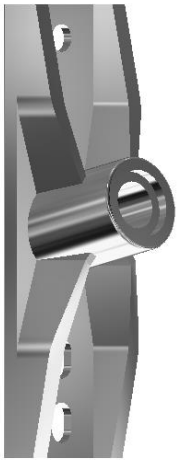
Horizontal Flat Base (HBf)



Horizontal Round Base (HBr)



Gain Base (GB)

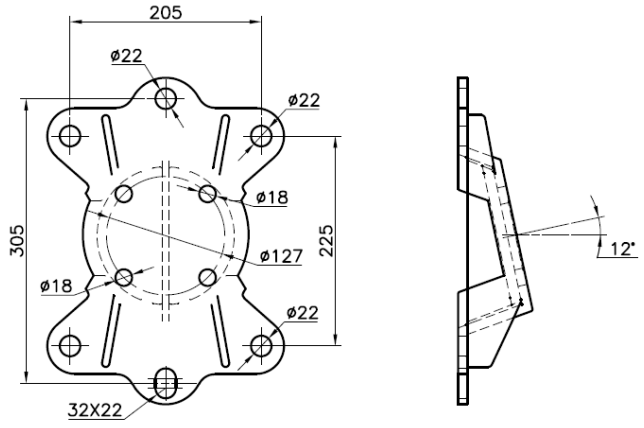


Special fitting can be made according to customer request.

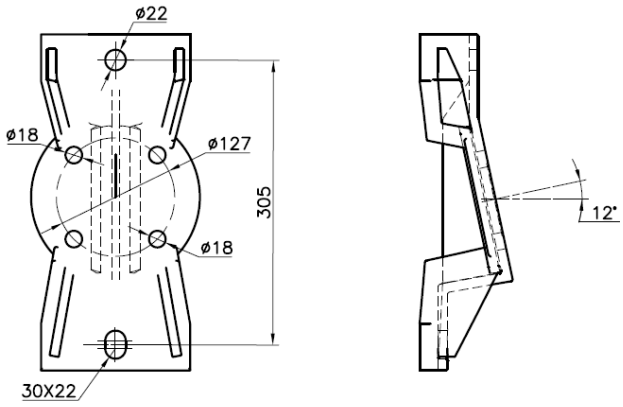
COMPOSITE HORIZONTAL POST INSULATORS BASE

Standard solution of galvanized steel fittings for H.V. post insulators

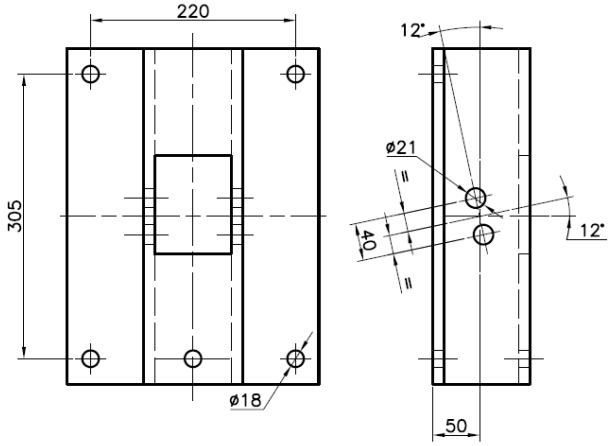
Horizontal Circular Flat Base (CBf)



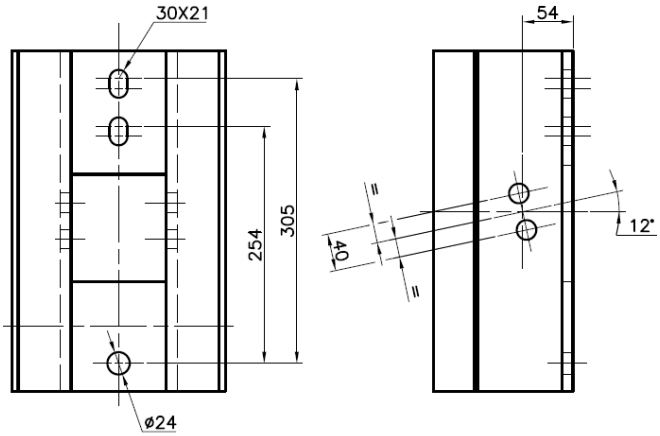
Horizontal Circular Round Base (CBr)



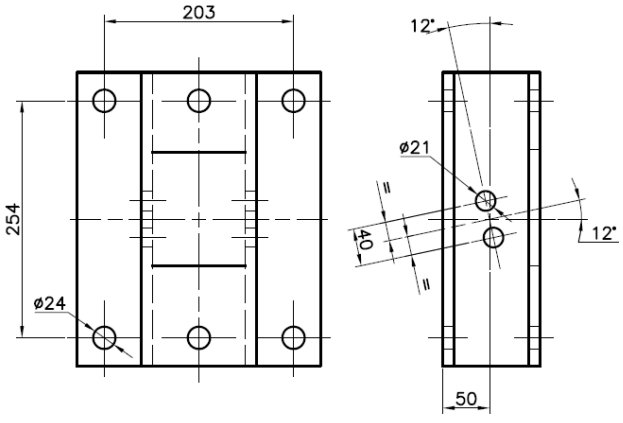
Horizontal Round Base For BIG (HBr)



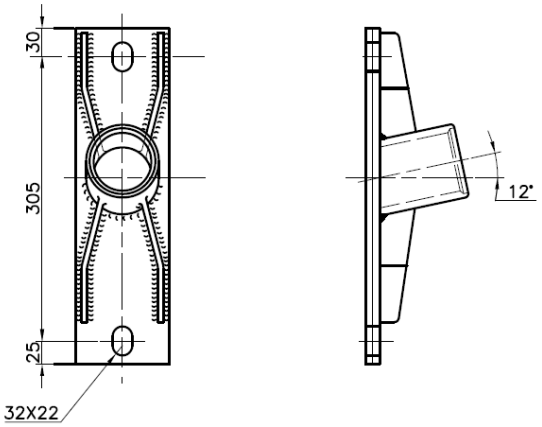
Horizontal Round Base For MAX (HBr)



Horizontal Flat Base For MAX (HBf)

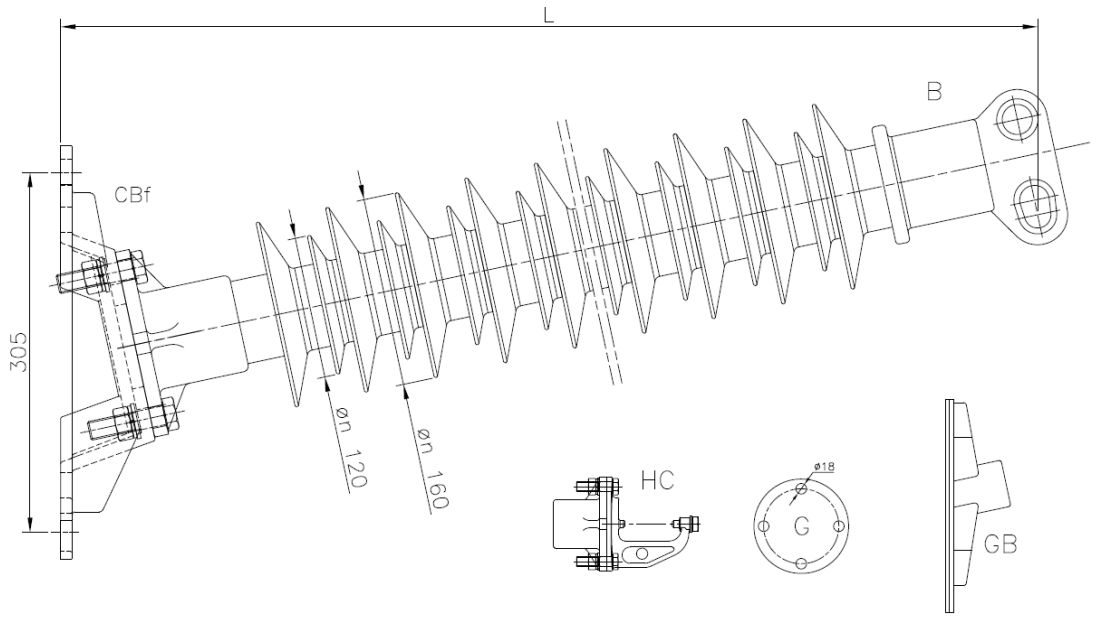


Gain Base (GB)



Special fitting can be made according to customer request.

Composite Horizontal Post Insulators in Silicone Rubber type ISI-BIG*



Dimensions tolerance acc. to IEC 61952

Available on demand intermediate numbers of sheds

Selection Guide Line voltage (kV) 17,5	24	36	52	69 - 72,5	100 - 170	245	SCL (kN)	Catalogue Code (♦)	Length L (mm)	No. of Sheds A No **(1)**	Leakage distance (mm)	Dry arc distance (mm)	DRY Lightning impul. withs. 1,2/50 (kV)	WET Power freq. withs. 50 Hz (kV)	Weight (kg)
							40,0	BIG-A002-BCBf	415	2+1	350	175	100	60	10,0
							33,0	BIG-A003-BCBf	475	3+2	545	235	135	75	11,0
							28,0	BIG-A004-BCBf	530	4+3	730	295	160	90	11,5
							24,0	BIG-A005-BCBf	590	5+4	920	355	190	110	12,0
							21,5	BIG-A006-BCBf	650	6+5	1120	415	220	130	12,5
							19,0	BIG-A007-BCBf	710	7+6	1300	475	255	155	13,5
							17,5	BIG-A008-BCBf	765	8+7	1495	535	290	175	14,0
							16,0	BIG-A009-BCBf	825	9+8	1685	595	320	185	14,5
							14,5	BIG-A010-BCBf	885	10+9	1875	655	420	200	15,0
							12,5	BIG-A012-BCBf	1000	12+11	2255	775	460	230	16,5
							11,0	BIG-A014-BCBf	1120	14+13	2635	895	500	265	17,5
							10,0	BIG-A016-BCBf	1235	16+15	3015	1015	560	300	19,0
							9,0	BIG-A018-BCBf	1355	18+17	3395	1135	615	335	20,0
							8,0	BIG-A020-BCBf	1470	20+19	3775	1255	670	370	21,5
							7,5	BIG-A022-BCBf	1590	22+21	4155	1375	725	405	22,5
							7,0	BIG-A024-BCBf	1705	24+23	4540	1495	830	435	23,5
							6,0	BIG-A028-BCBf	1940	28+27	5300	1735	940	515	26,0
							5,0	BIG-A032-BCBf	2175	32+31	6060	1975	1100	575	28,5
							4,5	BIG-A036-BCBf	2410	36+35	6820	2215	1230	640	31,0

Pollution level acc. to IEC 60815: **Medium_20 mm/kV** | **High_25 mm/kV** | **Very High_31 mm/kV** | **Extra_45 mm/kV**

NOTE : Once chosen the insulator that is the most suitable to the characteristics of the line on which you have to install it, in order to obtain the total length of the insulator (L), please, select the kind of end fitting you have to use and refer to the following table :

Length deviations

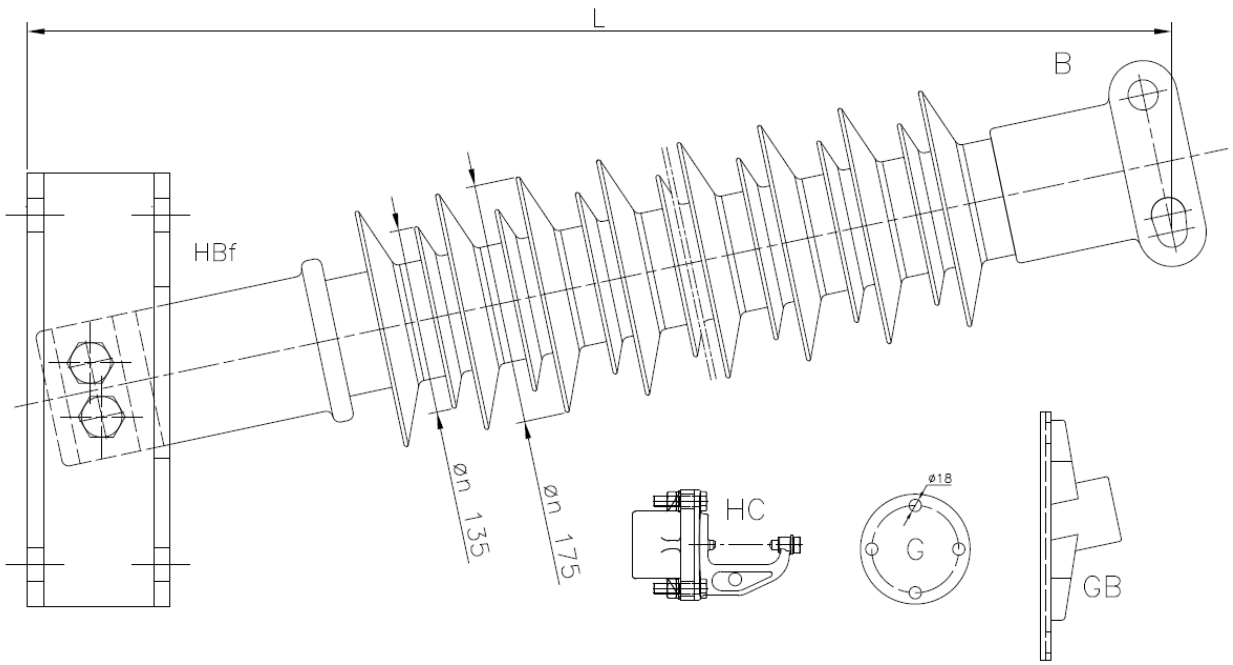
Line fitting	Ground fitting	Code **(2)**	Length change (L)	Insulator mounting angle
B	CBf	BCBf	0	12°
HC	CBf	HCCBf	+25	12°
B	GB	BGB	-55	12°
HC	GB	HCGB	-35	12°
HC	G	HCG	-30	0°
B	G	BG	-55	0°

Specified Cantilever Load	**SCL - IEC 61952**
Maximum Design Cantilever Load	MDCL = 60% of SCL
Specified Tensile Load (STL)	100 kN
Maximum design compression	50 kN
Max torsion Load	3500 N*m
(♦) Key to the catalog numbers	* Key : ISI-BIG- A**(1)-(2)**
	Example : ISI-BIG-A014-BCBf

These insulators are produced and tested according to IEC 61952.

It's possible to have other combinations, Contact us.

Composite Horizontal Post Insulators in Silicone Rubber type ISI-MAX*



Dimensions tolerance acc. to IEC 61952

Available on demand intermediate numbers of sheds

Selection Guide Line voltage (kV)					SCL (kN)	Catalogue Code (♦)	Length L (mm)	No. of Sheds A No **(1)**	Leakage distance (mm)	Dry arc distance (mm)	DRY Lightning impul. withs. 1,2/50 (kV)	WET Power freq. withs. 50 Hz (kV)	Weight (kg)
69 - 72.5	100-123	145-170	245	300-362									
					18,0	MAX-A014-BHBf	1185	14+13	2745	900	500	265	34,5
					16,0	MAX-A016-BHBf	1305	16+15	3140	1020	560	300	36,0
					14,5	MAX-A018-BHBf	1420	18+17	3540	1140	615	335	37,5
					13,0	MAX-A020-BHBf	1540	20+19	3935	1260	670	370	39,0
					12,0	MAX-A022-BHBf	1655	22+21	4335	1380	725	405	40,5
					11,0	MAX-A024-BHBf	1775	24+23	4730	1500	830	435	42,0
					9,5	MAX-A028-BHBf	2010	28+27	5525	1740	940	515	45,5
					8,5	MAX-A032-BHBf	2245	32+31	6315	1980	1100	575	49,0
					7,0	MAX-A038-BHBf	2595	38+37	7510	2340	1330	675	54,0
					6,5	MAX-A043-BHBf	2890	43+42	8500	2640	1460	750	58,0
					6,0	MAX-A046-BHBf	3065	46+45	9095	2820	1585	780	60,5

Pollution level acc. to IEC 60815: **Medium_20 mm/kV** | **High_25 mm/kV** | **Very High_31 mm/kV** | **Extra_45 mm/kV**

NOTE : Once chosen the insulator that is the most suitable to the characteristics of the line on which you have to install it, in order to obtain the total length of the insulator (L), please, select the kind of end fitting you have to use (see page _) and refer to the following tables :

Length deviations

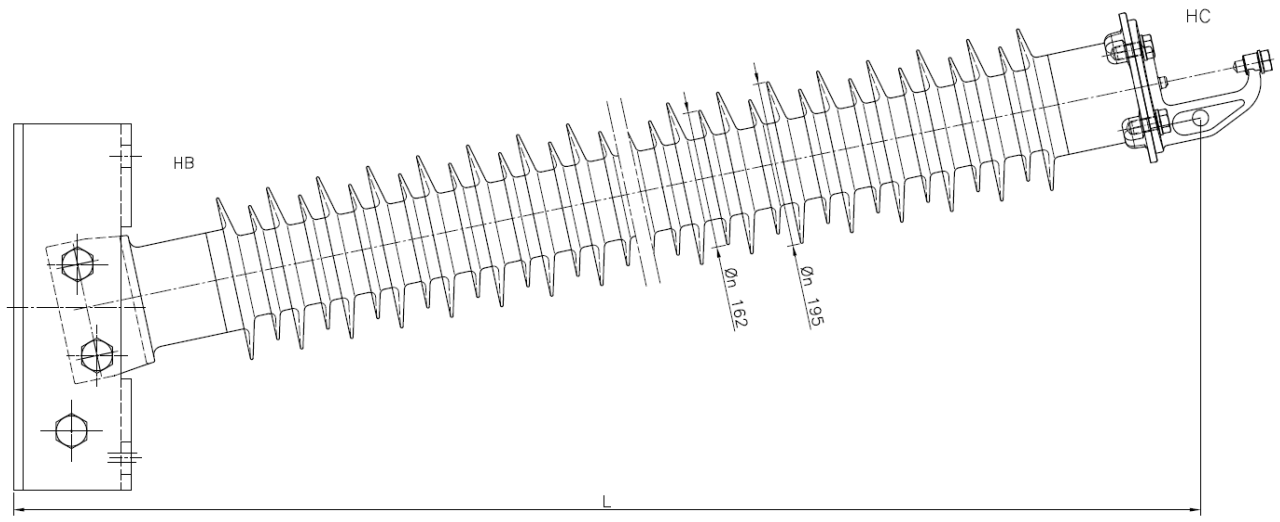
Line fitting	Ground fitting	Code **(2)**	Length change (L)	Insulator mounting angle
B	HB	BHBf	0	12°
HC	HB	HCHBf	+35	12°
B	GB	BGB	-130	12°
HC	GB	HCGB	-95	12°
HC	G	HCG	-110	0°
B	G	BG	-120	0°

	SCL - IEC 61952
Specified Cantilever Load	
Specified Tensile Load (STL)	100 kN
Maximum design compression	50 kN
Max torsion Load	4000 N*m
(♦) Key to the catalog numbers	* Key : ISI-MAX- A**(1)**-**(2)**
	Example : ISI-MAX-A014-BHBf

These insulators are produced and tested according to IEC 61952.

It's possible to have other combinations, Contact us.

Composite Horizontal Post Insulators in Silicone Rubber type ISI-TOR*



Dimensions tolerance acc. to IEC 61952

Available on demand intermediate numbers of sheds

Selection Guide Line voltage (kV) 52	69 – 72,5	100 - 170	245	SCL (kN)	Catalogue Code (♦)	Lenght L (mm)	No. of Sheds A No **(1)**	Leakage distance (mm)	Dry arc distance (mm)	DRY Lightning impul. withs. 1,2/50 (kV)	WET Power freq. withs. 50 Hz (kV)	Weight (kg)
				48,5	TOR-A008-HCHB	865	8+7	1535	500	280	155	45,5
				42,5	TOR-A010-HCHB	980	10+9	1950	620	340	190	48,0
				37,5	TOR-A012-HCHB	1100	12+11	2360	740	410	225	50,0
				33,5	TOR-A014-HCHB	1215	14+13	2775	860	475	270	52,0
				30,5	TOR-A016- HCHB	1335	16+15	3190	980	540	310	54,5
				28,0	TOR-A018- HCHB	1450	18+17	3600	1100	610	340	56,5
				26,0	TOR-A020- HCHB	1570	20+19	4015	1220	690	375	59,0
				24,0	TOR-A022- HCHB	1685	22+21	4425	1340	785	405	61,0
				22,5	TOR-A024- HCHB	1805	24+23	4840	1460	865	430	63,5
				21,0	TOR-A026- HCHB	1920	26+25	5250	1580	935	460	65,5
				19,5	TOR-A028- HCHB	2040	28+27	5665	1700	1005	485	68,0
				18,5	TOR-A030- HCHB	2155	30+29	6075	1820	1085	515	70,0
				18,0	TOR-A031- HCHB	2215	31+30	6285	1880	1115	525	71,0
				17,5	TOR-A032- HCHB	2275	32+31	6490	1940	1155	540	72,5
				17,0	TOR-A033- HCHB	2330	33+32	6695	2000	1190	555	73,5
				16,5	TOR-A034- HCHB	2390	34+33	6900	2060	1225	570	74,5
				16,0	TOR-A035- HCHB	2450	35+34	7110	2120	1260	585	75,5
				16,0	TOR-A036- HCHB	2510	36+35	7315	2180	1305	595	77,0
				15,5	TOR-A037- HCHB	2565	37+36	7520	2240	1350	610	78,0
				15,0	TOR-A038- HCHB	2625	38+37	7725	2300	1395	625	79,0
				15,0	TOR-A039- HCHB	2685	39+38	7935	2360	1435	640	80,0

Pollution level acc. to IEC 60815: **Medium_20 mm/kV** | **High_25 mm/kV** | **Very High_31 mm/kV** | **Extra_45 mm/kV**

NOTE : Once chosen the insulator that is the most suitable to the characteristics of the line on which you have to install it, in order to obtain the total length of the insulator (L), please, select the kind of end fitting you have to use (see page _) and refer to the following tables :

Length deviations

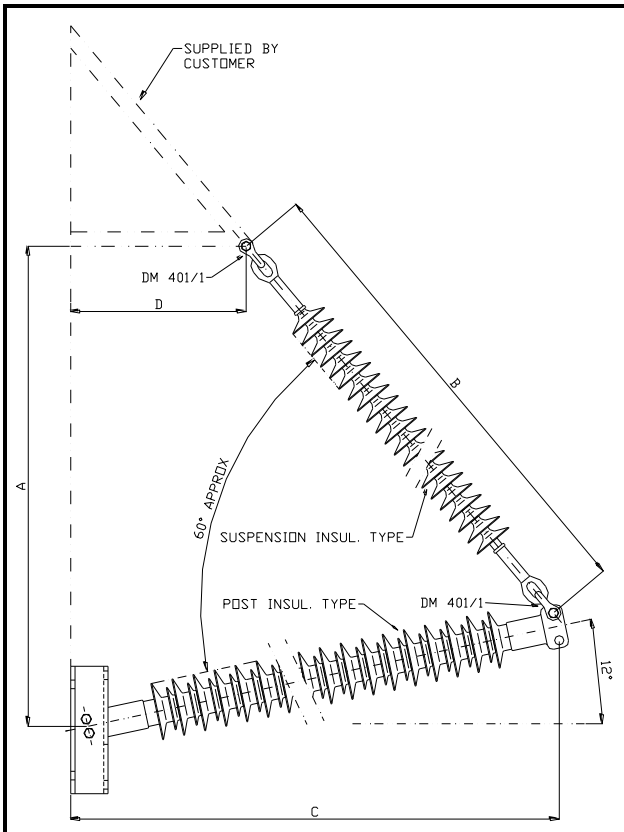
Line fitting	Ground fitting	Code **(2)**	Length change (L)	Insulator mounting angle
HC	HB	HCHB	0	12°

Specified Cantilever Load	**SCL - IEC 61952**
Maximum Design Cantilever Load	MDCL = 60% of SCL
Specified Tensile Load (STL)	100 kN
Maximum design compression	100 kN
Max torsion Load	10000 N*m
(♦) Key to the catalog numbers	* Key : ISI-TOR- A**(1)**-**(2)**
	Example : ISI-TOR-A014-HCHB

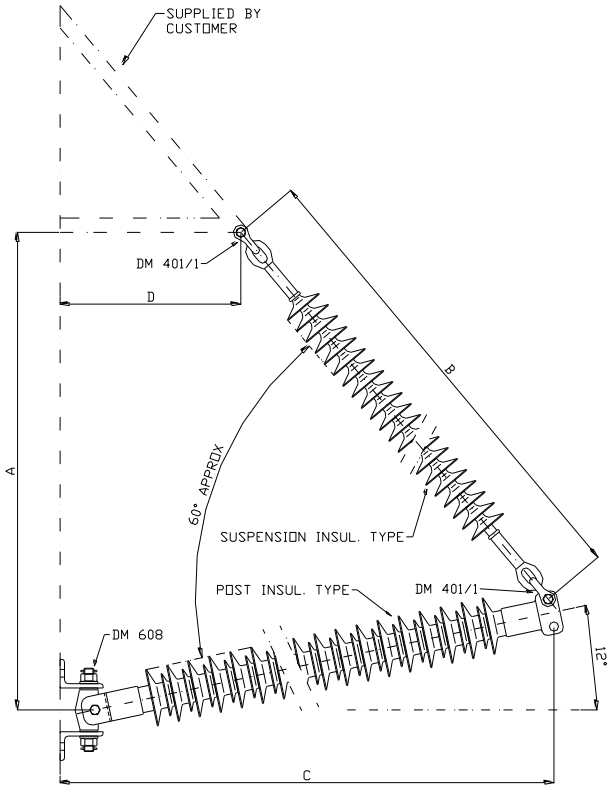
These insulators are produced and tested according to IEC 61952.

It's possible to have other combinations, Contact us.

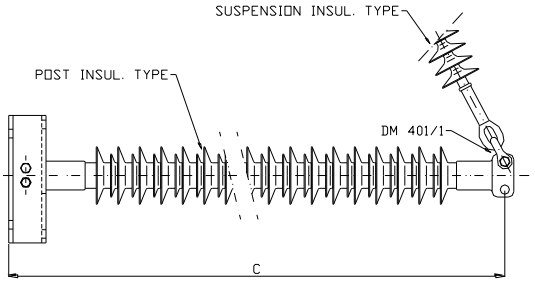
INSULATING BRACKET ASSEMBLY DRAWINGS



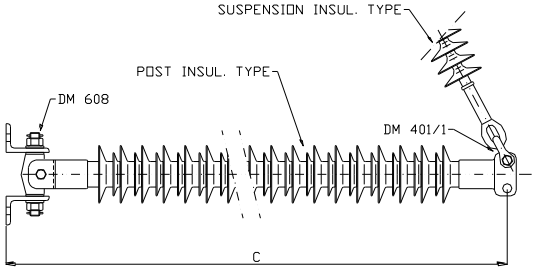
Fixed assembly with 12° inclination



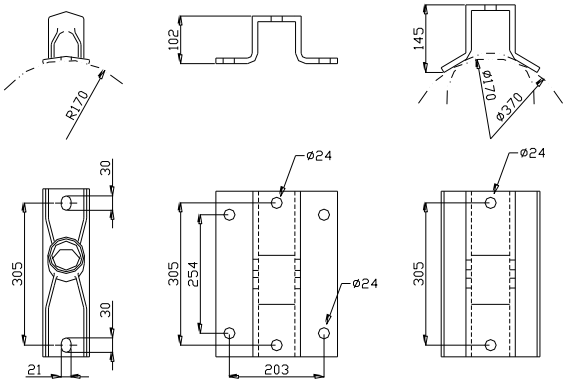
Horizontal & Vertical Pivoting assembly with 12° inclination



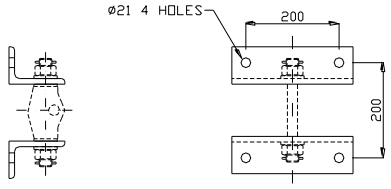
Fixed assembly with 0° inclination



Horizontal & Vertical Pivoting assembly with 0° inclination



Base for Fixed assembly with 0° or 12° inclination



Base for Pivoting assembly with 0° or 12° inclination

Please, don't hesitate to contact us directly for obtaining possible explanations or different solutions.

INSULATING BRACKET ASSEMBLY – Dimensions and Strength Ratings

FIXED ASSEMBLY with 12° inclination

Typical Voltage	Component insulators		Dimensions (mm)				Maximum Load* (kN)				Pollution
	Suspension type	Post type	A	B	C	D	1*	2*	3*	4*	mm/kV
138	MAN-A025-120EE	ISI-BIG-A20+19-BHB	1510	1580	1495	420	55	35	55	5,72	> 25
138	LOK-A027-120EE	ISI-BIG-A24+23-BHB	1625	1670	1730	595	55	35	55	4,42	> 31
145	LOK-A029-120EE	ISI-MAX-A24+23-BHB	1705	1760	1770	580	70	45	70	5,85	> 31
161	LOK-A028-120EE	ISI-BIG-A23+22-BHB	1650	1715	1670	505	55	35	50	4,42	> 25
161	LOK-A032-120EE	ISI-BIG-A27+26-BHB	1830	1895	1905	620	55	35	50	4,22	> 31
170	LOK-A034-120EE	ISI-MAX-A29+28-BHB	1935	1985	2065	725	70	45	60	4,87	> 31
230	MAN-A044-120EE	ISI-BIG-A31+30-BHB	2320	2485	1965	460	55	35	45	3,57	> 25
230	LOK-A045-120EE	ISI-BIG-A38+37-BHB	2405	2480	2550	875	55	35	45	2,90	> 31
245	LOK-A048-120EE	ISI-MAX-A41+40-BHB	2550	2615	2770	1005	70	45	50	4,22	> 31

FIXED ASSEMBLY with 0° inclination (Horizontal V)

Typical Voltage	Component insulators		Dimensions (mm)				Maximum Load* (kN)				Pollution
	Suspension type	Post type	A	B	C	D	1*	2*	3*	4*	mm/kV
138	MAN-A025-120EE	ISI-BIG-A20+19-BHB	1400	1580	1520	730	50	35	55	5,50	> 25
138	LOK-A027-120EE	ISI-BIG-A24+23-BHB	1480	1670	1760	925	50	35	55	4,20	> 31
145	LOK-A029-120EE	ISI-MAX-A24+23-BHB	1555	1760	1805	925	65	45	70	5,60	> 31
161	LOK-A028-120EE	ISI-BIG-A23+22-BHB	1515	1715	1700	840	50	35	55	4,20	> 25
161	LOK-A032-120EE	ISI-BIG-A27+26-BHB	1675	1895	1940	990	50	35	55	4,00	> 31
170	LOK-A034-120EE	ISI-MAX-A29+28-BHB	1750	1985	2105	1110	65	45	70	4,60	> 31
230	MAN-A044-120EE	ISI-BIG-A31+30-BHB	2140	2435	2180	960	50	35	55	3,30	> 25
230	LOK-A045-120EE	ISI-BIG-A38+37-BHB	2180	2480	2600	1360	50	35	55	2,70	> 31
245	LOK-A048-120EE	ISI-MAX-A41+40-BHB	2295	2615	2825	1460	65	45	70	4,00	> 31

HORIZONTAL & VERTICAL PIVOTING ASSEMBLY with 12° inclination

Typical Voltage	Component insulators		Dimensions (mm)				Maximum Load* (kN)				Pollution
	Suspension type	Post type	A	B	C	D	1*	2*	3*	4*	mm/kV
138	MAN-A025-120EE	ISI-BIG-A20+19-BC	1510	1580	1525	450	55	35	55	--	> 25
138	LOK-A027-120EE	ISI-BIG-A24+23-BC	1630	1670	1760	625	55	35	55	--	> 31
145	LOK-A029-120EE	ISI-MAX-A24+23-BC	1720	1760	1790	590	70	45	70	--	> 31
161	LOK-A028-120EE	ISI-BIG-A23+22-BC	1650	1715	1700	535	55	35	50	--	> 25
161	LOK-A032-120EE	ISI-BIG-A27+26-BC	1835	1895	1935	650	55	35	50	--	> 31
170	LOK-A034-120EE	ISI-MAX-A29+28-BC	1950	1985	2085	735	70	45	60	--	> 31
230	MAN-A044-120EE	ISI-BIG-A31+30-BC	2285	2435	2170	520	55	35	45	--	> 25
230	LOK-A045-120EE	ISI-BIG-A38+37-BC	2405	2480	2580	905	55	35	45	--	> 31
245	LOK-A048-120EE	ISI-MAX-A41+40-BC	2570	2615	2790	1015	70	45	50	--	> 31

HORIZONTAL & VERTICAL PIVOTING ASSEMBLY with 0° inclination

Typical Voltage	Component insulators		Dimensions (mm)				Maximum Load* (kN)				Pollution
	Suspension type	Post type	A	B	C	D	1*	2*	3*	4*	mm/kV
138	MAN-A025-120EE	ISI-BIG-A20+19-BC	1400	1580	1545	755	50	35	55	--	> 25
138	LOK-A027-120EE	ISI-BIG-A24+23-BC	1480	1670	1785	950	50	35	55	--	> 31
145	LOK-A029-120EE	ISI-MAX-A24+23-BC	1575	1760	1820	940	65	45	70	--	> 31
161	LOK-A028-120EE	ISI-BIG-A23+22-BC	1515	1715	1725	870	50	35	55	--	> 25
161	LOK-A032-120EE	ISI-BIG-A27+26-BC	1675	1895	1965	1015	50	35	55	--	> 31
170	LOK-A034-120EE	ISI-MAX-A29+28-BC	1770	1985	2120	1125	65	45	70	--	> 31
230	MAN-A044-120EE	ISI-BIG-A31+30-BC	2140	2435	2205	990	50	35	55	--	> 25
230	LOK-A045-120EE	ISI-BIG-A38+37-BC	2180	2480	2625	1385	50	35	55	--	> 31
245	LOK-A048-120EE	ISI-MAX-A41+40-BC	2315	2615	2840	1530	65	45	70	--	> 31

*** Maximum load are for single loads in the specified direction: 1=Vertical, 2=Tension, 3=Compression, 4=Longitudinal**

Please, don't hesitate to contact us directly for obtaining possible explanations or different solutions.