

**CYG Insulator Co.,Ltd.(CYG Insulator)**, the leading composite insulator manufacturer in china, a controlled subsidiary of Changyuan Technology Group Ltd.(SH: 600525), established in 1994 ,is an national hi-tech enterprise specially engaged in the research &design, manufacture and sales of composite insulators for transmission line(TL), substation(SS), distribution line(DL), electrical railway(Rail),composite insulation components(CIC) and composite surge arrester for distribution line(CSA).

CYG Insulator has the capacity and ability of researching, manufacturing and inspection both  $\pm 1100\text{kV}$  HVDC and  $1100\text{kV}$  HVAC and below voltage. The factory has the advanced manufacturing facilities covering two sets of 100% auto silicone rubber lines, over 30sets of whole injection machines along with 300 injection moldings and over 10 sets finpower-made crimping machines. Also CYG Insulator has the test & inspection facilities covering the chemical/Physical lab, Mechanical Lab, Aging Lab and Electrical Lab.

Now CYG Insulator has been one of the biggest famous insulators' company in manufacturing technology, production capacity, product quality and market shares. And his products have recognized and praised by various consumers worldwide

**CYG Insulator is certified by ISO 9001/ISO14001/ISO45001**

## COMPOSITE INSULATOR FOR DISTRIBUTION LINE



## ELECTRICAL LAB



**Medium voltage Composite Insulators** offer the ultimate solution in improved performance. Because of its hydrophobicity, this material inherently resists water filming thereby limiting leakage currents. Insulators with reduced leakage currents, even when contaminated, require less frequent washing. The savings in such maintenance costs are added benefits of using silicone insulators.

**Application:** MV composite Insulators are used on overhead lines operating at or below 69 kV. These insulators are used to support line conductors such as line terminations, angles, and tangents. With the special head design, these insulators can be used with bare or covered conductors.

**Component:** MV composite Insulators are consisted of E-CR fiber reinforced polymer rod, metal fitting and housing materials. The glass must be electrically and chemically stable (ECR glass) and the housing(including the sheath and sheds) must be HTV silicone rubber with high hydrophobicity and high tracking & erosion resistance performance.

Technology Innovation: For HTV SR, CYG has its own patent formula and its own patent of the production process; For process, CYG creates the unique whole molding injection/sealing

DESIGNATION(String Insulator)

Letters CS (Composite Suspension/Tension)

Specific Mechanic Load in kN

Two letters representing both end fittings, first one letter is for insulator fitting at tower/ground end and the second one letter is for insulator fitting at line end







Two numbers separated by a slash, the first one represents the lighting impulse withstand voltage in kV and the second one the minimum creepage distance in mm

A dash followed by the total length in mm (this last information doesn't appear in the IEC 61466)

Designation Example(CS 70 EB 125/600-455)

Composite suspension/tension insulator, Specific mechanic load equal to 70 kN, with an eye for the support-side and a ball for the conductor side, lighting impulse withstand voltage equal to 125 kV and minimum creepage distance of 600 mm. Total length equal to 455 mm.

Suspension/Tension Insulator End Fitting

Fitting Type	Sketch	Catalog Code
Clevis		C
Tongue		T
Eye		E
Socket		S
Ball		B
Y-Clevis		Y

DESIGNATION(Line Post Insulator)

Letters CLP (Composite Line Post)

Specific Cantilever Load in kN

Two letters representing both end fittings, first one letter is for insulator fitting at tower/ground end and the second one letter is for insulator fitting at line end


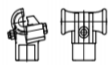

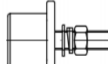



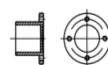

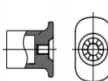
Two numbers separated by a slash, the first one represents the lighting impulse withstand voltage in kV and the second one the minimum creepage distance in mm

A dash followed by the total length in mm (this last information doesn't appear in the IEC 61466)

Designation Example(CLP 13 NJ 125/550-254)

Composite line post insulator, Specific cantilever load equal to 13 kN, with Neck fitting for the conductor and a pin for the tower/ground side, lighting impulse withstand voltage equal to 125 kV and minimum creepage distance of 550 mm. Total length equal to 254 mm.

Line Post Insulator End Fitting

Fitting Type	Sketch	Catalog Code	Fitting Type	Sketch	Catalog Code
R13 Neck		AN	G-Clamp		G
R16 Neck		CN	Pin Base		P
R25 Neck		FN	Gain Base		G
Horizontal Clamp-top		H	Flange Base		F
Vertical Clamp-top		V	Tap Base		T

## MEDIUM VOLTAGE CATALOGUE FOR SUSPENSION/TENSION INSULATOR

SN	Designation	Voltage (kV)	Height (mm)	Minimum arcing distance [mm]	Minimum Leakage	Dry Lightning impulse withstand voltage(KV)	Wet Power Frequency withstand voltage (kV)	Positive Critical Impulse Flahover ANSI(KV)	Low Frequency Dry Flashover ANSI (kV)	Low Frequency Wet Flashover ANSI (kV)	Tensile	App. Weight Kgs	Reference Type of Connect Fitting
					Distance (mm)						Strength(kN)		
1	CS80CT 125/465-330	15	330	200	465	125	50	150	90	65	80	1.1	B=Ball
2	CS80CT 125/480-330	15	330	205	480	125	50	150	90	65	80	1.3	S=Sockete
3	CS80CT 150/740-430	28	430	300	740	150	70	200	130	100	80	1.3	C=Clevis
4	CS80CT 170/900-455	28	455	300	900	170	70	200	130	100	80	1.6	T=Tongue
5	CS80CT 260/960-555	35	555	430	960	260	90	235	145	130	80	1.6	E=Oval Eye
6	CS80CT 200/1250-555	35	555	430	1250	200	90	235	145	130	80	1.9	Y=Y Clevis
7	CS80SB 320/1250-585	46	585	460	1250	320	110	350	180	145	80	1.9	
8	CS120SB 280/1440-585	46	585	485	1440	280	110	350	180	145	120	2.3	
9	CS120SB 425/1725-800	69	800	650	2000	425	140	400	220	185	120	2.3	
10	CS120SB 325/1800-750	69	750	630	2300	325	140	400	220	185	120	3.3	

**Remark:**

- 1) All the designs are in accordance with the ANSI/IEC relative standards and can also be customized as per actual request.
- 2) The other type of end fittings are also available if needed.

## MEDIUM VOLTAGE CATAGLOGUE FOR LINE POST INSULATOR

SN	Designation	ANSI Class	Voltage (kV)	Height (mm)	Insulation Distance (mm)	Dry Arc (mm)	Minimum Leakage Distance (mm)	Wet Power Frequency withstand Voltage (kV)	Dry Lightning impulse withstand voltage(KV)	Low Frequency Dry Flashover ANSI (kV)	Low Frequency Wet Flashover ANSI (kV)	Positive Critical Impulse Flahover ANSI(KV)	Radio influence voltage		SCL (kN)	STL (kN)	Fitting Type	App. Weight Kgs	Reference Type of Fitting
													Test Voltage	Max. RIV at 1MHz					
1	CLP12.5CNT-125/465-300	51-1C	15	300	160	190	465	50	125	72	60	150	10	100	12.5	22	C-Neck & Central Tap Base(CNT)	3.2	AN= R13 Neck
2	CLP12.5CNT-150/745-340	51-2C	25	340	160	200	745	60	150	80	75	175	15	100	12.5	22	C-Neck & Central Tap Base(CNT)	3.5	CN= R16 Neck
3	CLP12.5CNT-200/1116-390	51-3C	35	425	240	290	1116	75	200	116	95	220	22	100	12.5	22	C-Neck & Central Tap Base(CNT)	4.3	FN=R25 Neck
4	CLP12.5CNT-300/1150-560	51-4C	46	560	365	400	1150	110	300	160	140	320	30	200	12.5	22	C-Neck & Central Tap Base(CNT)	6.3	V=Vertical Clamp-top
5	CLP12.5FNT-125/465-300	51-1F	15	300	130	160	465	50	125	72	60	150	10	100	12.5	22	F-Neck & Central Tap Base(FNT)	4.2	H=Horizontal Clamp-top
6	CLP12.5FNT-150/745-350	51-2F	25	350	160	200	745	60	150	80	75	175	15	100	12.5	22	F-Neck & Central Tap Base(FNT)	4.5	GC=G-Clamp
7	CLP12.5FNT-200/1116-400	51-3F	35	425	240	290	1116	75	200	116	95	220	22	100	12.5	22	F-Neck & Central Tap Base(FNT)	5.3	T=Tap Base
8	CLP12.5FNT-300/1150-560	51-4F	46	560	365	400	1150	110	300	160	140	320	30	200	12.5	22	F-Neck & Central Tap Base(FNT)	7.3	F=Flange Base
9	CLP12.5VT-125/465-300	51-11	15	300	150	180	465	50	125	72	60	150	10	100	12.5	22	Vertical Clamp-top & Central Tap Base(VT)	3.7	G=Gain Base
10	CLP12.5VT-150/745-340	51-12	25	340	160	200	745	60	150	80	75	175	15	100	12.5	22	Vertical Clamp-top & Central Tap Base(VT)	4	P=Pin Base(Integrated Design)
11	CLP12.5VT-200/1116-390	51-13	35	425	240	290	1116	75	200	116	95	220	22	100	12.5	22	Vertical Clamp-top & Central Tap Base(VT)	4.8	Thread(L=200 M18)
12	CLP12.5VT-300/1150-560	51-14	46	560	365	400	1150	110	300	160	140	320	30	200	12.5	22	Vertical Clamp-top & Central Tap Base(VT)	6.8	Thread(L=200 M20)
13	CLP10VT-350/1820-762	51-15	69	762	560	600	1820	150	350	230	200	420	44	200	11	22	Vertical Clamp-top & Central Tap Base(VT)	7.8	Thread(L=200 M22)
14	CLP12.5VT-430/2248-860	51-16	69	830	640	690	2248	180	430	260	230	520	44	200	12.5	22	Vertical Clamp-top & Central Tap Base(VT)	10	
15	CLP12.5HT-125/465-330	51-21	15	330	140	170	465	50	125	72	60	150	10	100	12.5	22	Horizontal Clamp-top & Central Tap Base(HT)	3.7	
16	CLP12.5HT-150/745-360	51-22	25	360	160	200	745	60	150	80	75	175	15	100	12.5	22	Horizontal Clamp-top & Central Tap Base(HT)	4	
17	CLP11HT-200/1116-425	51-23	35	425	240	290	1116	75	200	116	95	220	22	100	12.5	22	Horizontal Clamp-top & Central Tap Base(HT)	4.8	
18	CLP12.5HT-300/1150-560	51-24	46	560	365	400	1150	110	300	160	140	320	30	200	12.5	22	Horizontal Clamp-top & Central Tap Base(HT)	6.8	
19	CLP10HT-350/1820-762	51-25	69	762	560	600	1820	150	350	230	200	420	44	200	11	22	Horizontal Clamp-top & Central Tap Base(HT)	7.8	
20	CLP12.5HT-430/2248-860	51-26	69	830	640	690	2248	180	430	260	230	520	44	200	12.5	22	Horizontal Clamp-top & Central Tap Base(HT)	10	
21	CLP12.5HG1-125/465-355	51-31	15	355	130	160	465	50	125	72	60	150	10	100	12.5	22	Horizontal Clamp-top & Gain Base(HG)	4.7	
22	CLP12.5HG1-150/745-380	51-32	25	380	150	195	745	60	150	78	75	175	15	100	12.5	22	Horizontal Clamp-top & Gain Base(HG)	5	
23	CLP11HG1-200/1116-460	51-33	35	460	240	290	1116	75	200	116	95	220	22	100	12.5	22	Horizontal Clamp-top & Gain Base(HG)	5.8	
24	CLP12.5HG1-300/1150-590	51-34	46	590	365	400	1150	110	300	160	140	320	30	200	12.5	22	Horizontal Clamp-top & Gain Base(HG)	7.8	
25	CLP10HG1-350/1820-780	51-35	69	780	560	600	1820	150	350	230	200	420	44	200	11	22	Horizontal Clamp-top & Gain Base(HG)	8.8	
26	CLP12.5HG1-430/2248-860	51-36	69	840	640	690	2248	180	430	260	230	520	44	200	12.5	22	Horizontal Clamp-top & Gain Base(HG)	11	
27	CLP12.5JCT-125/465-300	51-1C	15	300	140	170	465	50	125	68	60	150	10	100	12.5	22	C-Neck & Central Tap Base(CNT)	4.2	
28	CLP12.5JCT-150/745-340	51-2C	25	340	160	200	745	60	150	80	75	175	15	100	12.5	22	C-Neck & Central Tap Base(CNT)	4.5	
29	CLP12.5JCT-200/1120-390	51-3C	35	425	240	290	1085	75	200	116	95	220	22	100	12.5	22	C-Neck & Central Tap Base(CNT)	5.3	
30	CLP12.5JCT-300/1150-560	51-4C	46	560	365	400	1150	110	300	160	140	320	30	200	12.5	22	C-Neck & Central Tap Base(CNT)	7	

**Remark:**

- 1) All the designs are in accordance with the ANSI/IEC relative standards and can also be customized as per actual request.
- 2) The other type of end fittings are also available if needed.

## MEDIUM VOLTAGE CATAGLOGUE FOR SPECIAL LINE POST INSULATOR

### Porcelain head line post insulator



SN	Voltage (kV)	SToL (N*m)		Minimum Leakage Distance (mm)	Dry Lightning impulse withstand voltage(KV)	Wet Power Frequency withstand Voltage (kV)
1	17.5	12.5	195	300	95	38
2	24	10	255	385	145	50
3	36	10	295	575	210	95

### Resin head line post insulator



SN	Voltage (kV)	SCL (kN)	Section Length (mm)	Minimum Leakage Distance (mm)	Dry Lightning impulse withstand voltage(KV)	Wet Power Frequency withstand Voltage (kV)
1	17.5	12.5	195	300	95	38
2	24	10	255	385	145	50
3	36	10	295	575	210	95

### Hybrid line post insulator



SN	Voltage (kV)	SCL (kN)	Section Length (mm)	Minimum Leakage Distance (mm)	Dry Lightning impulse withstand voltage(KV)	Wet Power Frequency withstand Voltage (kV)
1	17.5	12.5	195	300	95	38
2	24	12.5	305	560	160	70
3	36	12.5	375	1120	200	95

Remark:

- 1) All the designs are in accordance with the ANSI/IEC relative standards and can also be customized as per actual request.
- 2) The other type of end fittings are also available if needed.