HELICAL FITTINGS

Catalogue

BRAND

ELECTRICAL HARDWARE

CECEC NANJING ELECTRIC CO., LTD.

CECEC Nanjing Electric Co., Ltd. is a leading professional supplier of electrical hardware for overhead electricity transmission, distribution & substation form the voltage of 0.38~760kV.

CECEC Nanjing Electric Co., Ltd. supplies the products to both utilities and electric power companies throughout Asia, Asia Pacific Region, Africa, Europe and North & South America as well. It is also supplies on OEM basis for numerous European, Australian and American companies who involved in T&D sector.

CECEC Nanjing Electric is now well known for its range of aluminum compression fittings, steel pin for pin type insulator, suspension clamp, strain clamp and forgings. it also has involved deeply in developing insulator fittings, vibration damper and fittings for Aerial Bundled Cable (ABC), etc.

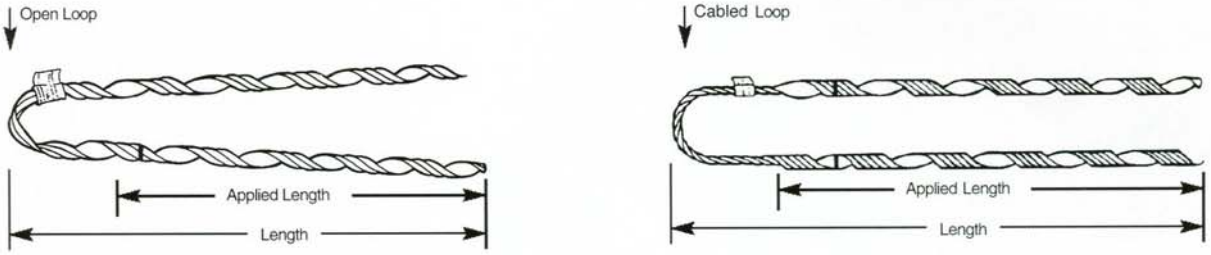
High Quality, wide range of products and high working efficiency has won a lot of clients home and abroad.
Customers's Statisfaction and good services are the top goals that CECEC Nanjing Electric Co., Ltd. always pursues.

Content

Technical Guide

Product Outline

Helical Rods



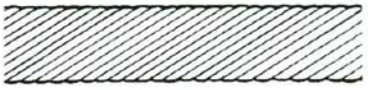
Dead End Clamp

Guy-grip Dead End Clamp

Distribution Side Tie

Lay Designation

Right Hand Lay



Left Hand Lay

End Finish

Depending on the voltage, ends of the individual rods may be either chamfered ball ended or EHV (Extra High Voltage) ended EHV end finish is generally required at a voltage greater than 330kV

Chamfered End

Ball End

EHV End

Helical Dead End Clamp for Conductor **(DCC)**

I. Components (Fig. A1)

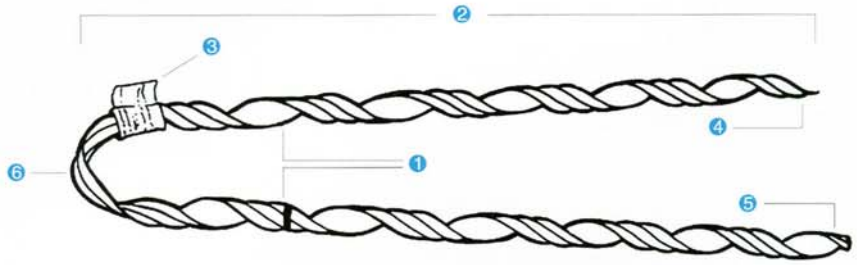


Fig. A1

❶ Color Code :Start point of application
❷ Length
❸ Label Catalogue No. and dimension etc.
❹/❺ Long leg/Short leg
❻ Cabled Loop for larger sized conductors is available

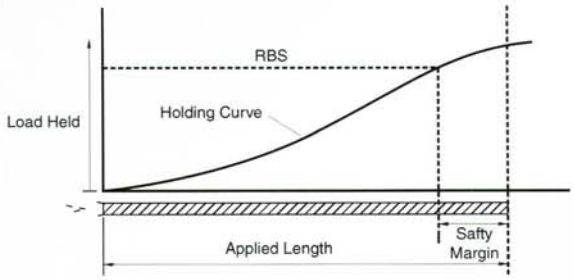


Fig. A2 Typical Holding Strength Curve

II. Usage (Fig.A2)

DCC can be applied to bear strain on naked(bared) or over-head insulating(coverd) conductors in transmission & distribution lines. It can be connected to pole or tower by matching fittings. It is the substitutes of the traditional clamps such as type-bolt, type-compaction and type-wedges shaped dead-ends clamps.

III. Characters (Fig. A3)

1) High Grip Strength
DCC used for the transmission lines, Its grip strength is over 95% of the conductor UTS.
DCC used for the distribution lines, Its grip strength is over 65% of the conductor UTS.

2) Excellent in electric corrosion proof
The helical rods of DCC are made of the same material as the conductor wire they are designed for which assure the excellent character of electric corrosion proof

3) Simple Design(Structure)
Comprised of the loop part and the grip leg the leg Supply efficient grippage for the conductor while the loop connecting to the matching fittings.

4) Easy Installation
No specific tools required, the installation can be finished bare-handed by one person, easy and quick.

5) Compatibility
DCC is fully compatible with various of hardware fittings.

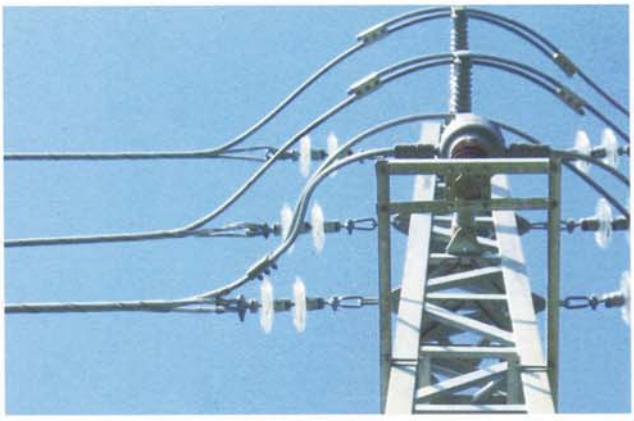


Fig. A3

IV. Matching Fittings

1) DCC loop applied to connect with smoothly contoured fittings, The corresponding inside groove widths and diameters are as Following Table A1 Fig.A4

Table A1

Catalog No.	Width B (mm)	Dia.A (mm)
DCC-0462/A	≥6.4	32~60
DCC-0580/A	≥6.4	32~60
DCC-0735/A	≥6.4	32~60
DCC-0827/A	≥6.4	32~60
DCC-0926/A	≥9.5	40~60
DCC-1040/A	≥9.5	40~60
DCC-1169/A	≥11 1	40~60
DCC-1312/A	≥11 1	40~60
DCC-1467/A	≥11 1	40~60
DCC-1660/A	≥12.7	40~60
DCC-1878/A	≥15.9	40~60
DCC-2127/A	≥19.1	40~60
DCC-2406/A	≥19.1	40~60
DCC-2721/A	≥22.2	40~60

A and B are shown as Fig. A4

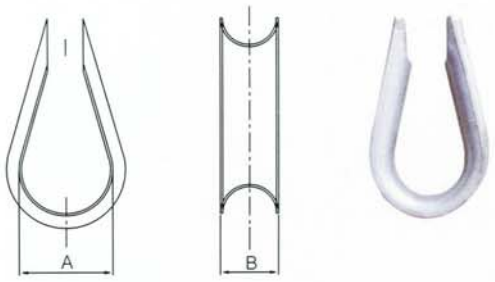


Fig. A4

2) Thimble Clevis (Fig.5)

Body: Hot-dip galvanized iron or forged steel
Bolt & nut: Hot-dip galvanized steel
Split pin: Stainless steel / Bronze

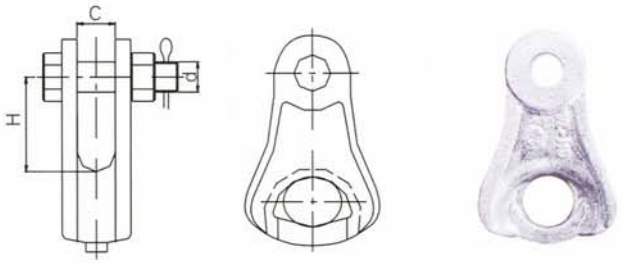


Fig. A5

Table A2 Thimble Clevis (Fig.5)

Catalog No.	Dimensions(mm)			Rated Failure Load (kN)	Weight (kg)
	c	d	H		
TC-3	20	12	45	30	0.30
TC-7	22	16	55	70	0.57
TC-10	22	18	60	100	0.74
TC-12	25	22	62.5	120	0.90
TC-16	27	24	65	160	1.40

3) Socket Thimbles (Fig. A6)

Body: Hot-dip galvanized forged iron
Bolt &nut: Hot-dip galvanized steel
Split pin: Stainless steel / Bronze

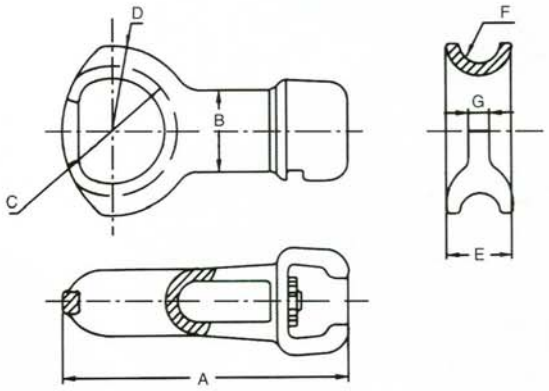


Fig. A6

Table A3 Socket Thimbles

Catalog No.	Dimensions(mm)							Rated Failure Load (kN)	Weight (kg)
	A	B	C	D	E	F	G		
WTX-7	135	40	R32	R42	32	R10	10	70	1.0
WTX-10	135	40	R32	R42	32	R10	10	100	1.2

V. Notes

1 The helical Dead-end clamp can not be used again after Enduring the full strength(original installation).

2) DCC can not be applied to over head ground wire.

VI. Ordering Information

1) According to the parameters of the conductor (con-struction(structure), cut section, Dia. And CUTS etc.) choose the corresponding Catalogue No. in table A4, for the no-mentioned ones please connect with our company directly

2) The lay direction of the DCC should be the same as the conductors outside lay right-handed lay for standard. Please do special statement in your ordering when the Conductor is left-handed

VII. Catalogue lists

Table A4 Helical Dead-end Clamp for Insulating Conductor

Catalog No.	Suitable Conductor (mm)	Suitable Conductor (1kV below)	Suitable Conductor (10kV thin)	Suitable Conductor (10kV)	Lenght (mm)	Weight (kg)	Color Code
DCC-0580/P	5.80 6.53	10			471	0.1	orange
DCC-0654/P	6.54 7.34	16			542	0.2	yellow
DCC-0827/P	8.27 ~ 9.24	25			702	0.2	green
DCC-0925/P	9.25 ~ 10.38	35			702	0.2	yellow
DCC-1039/P	10.39 ~ 11.67	50		10	754	0.3	blue
DCC-1168/P	11.68 13.10	70	25、35	16	800	0.4	orange
DCC-1311/P	13.11 ~ 14.66		50	25	872	0.6	purple
DCC-1467/P	14.67 ~ 16.59	95/120	70	35/50	900	0.8	blue
DCC-1660/P	16.60 18.77	150	95	70	990	1 1	red
DCC-1878/P	18.78 ~ 21.26	185	120 150	95/120	1020	1.5	brown
DCC-2127/P	21.27 ~ 24.05	240	185	150	1020	1.8	green
DCC-2406/P	24.06 ~ 27.20		240 300	185/240	1020	2.2	black
DCC-2721/P	27.21 ~ 30.78			300	1020	3.0	purple

Table A5 Helical Dead-end Clamp for ACSR

Catalog No.	Suitable Conductor (mm)	Suitable Conductor ACSR	Lenght (mm)	Weight (kg)	Color Code
DCC-0517/R	5.17~5.79	16/3	444	0.1	brown
DCC-0654/R	6.54~7.34	25/4	546	0.1	yellow
DCC-0735/R	7.35~8.26	35/6	622	0.2	red
DCC-0926/R	9.26~10.39	50/8	685	0.2	yellow
DCC-1040/R	10.40~11.68	70/10 50/30	736	0.4	blue
DCC-1312/R	13.12~14.66	70/40 95/15 95/20 120/7	876	0.6	red
DCC-1467/R	14.67~16.59	120/20 95/55 120/25 150/8	889	0.8	black
DCC-1660/R	16.60~18.77	150/20 150/25 150/35 120/70 185/10	1016	1 1	green
DCC-1878/R	18.78~21.26	185/25 185/30 210/10 185/45 210/25 210/35 210/50	1155	1 7	orange
DCC-2127/R	21.27~24.05	240/30 240/40 240/55 300/15 300/20	1270	2.3	blue
DCC-2406/R	24.06~27.20	300/25 300/40 300/50	1442	3.0	brown

Table A6 Helical Dead-end Clamp for AAAC

Catalog No.	Suitable Conductor Dia (mm)	Suitable Conductor AAAC	Lenght (mm)	Weight (kg)	Color Code
DCC-0462/A	4.62~5.16	16	406	0.1	blue
DCC-0580/A	5.80~6.53	25	444	0.1	yellow
DCC-0735/A	7.35~8.26	35	622	0.2	red
DCC-0827/A	8.27~9.25	50	685	0.2	green
DCC-1040/A	10.40~11.68	70	736	0.4	blue
DCC-1169/A	11.69~13.11	95	800	0.4	orange
DCC-1312/A	13.12~14.66	120	876	0.6	red
DCC-1467/A	14.67~16.59	150	889	0.8	black
DCC-1660/A	16.60~18.77	185 210	1016	1 1	green
DCC-1878/A	18.78~21.26	240	1155	1 7	orange
DCC-2127/A	21.27~24.05	300	1270	2.3	blue
DCC-2406/A	24.06~27.20	400	1442	3.0	orange
DCC-2721/A	27.21~30.78	500	1651	4.9	orange

Helical Dead End Clamp for Stay Wire (**DCS**)

I. Type and Structure (Fig. B1)

Including General DCS, Adjustable DCS, Large DCS etc. could be the substitutes of the traditional UT Wedge clamps, and Wedge clamps.

The structure of DCS is very simple and no specific tools required in installation The two legs of the clamp rods wrapped to the guy wire to supply strong grip strength. while the loop fix the stay wire to the anchor block or pole and tower

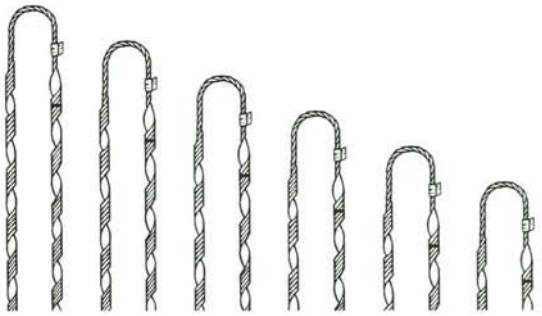


Fig. B1 Helical Dead-end Clamp for Stay Wire

II. Usage

The fix of the stay wire and anchor block.

III. Characters

1 High Grip Strength
DCS supplies over 95% of the stay wire UTS. (Picture B2)

2) Excellent in electric corrosion proof
Rods of DCS are the same material as the stay wire, which insure the excellent character of electric corrosion proof

3) Easy Installation
No specific tools required the installation can be finished bare-handed by one person, easy and quick.

4) Compatibility
DCS is fully compatible with various hardware fittings

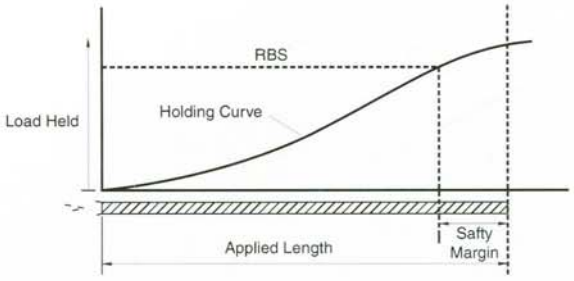


Fig. B2 Typical Holding Strength Curve

IV. Matching Fittings

Thimbles (Fig.B3)

Material. Hit-dip galvanized steel

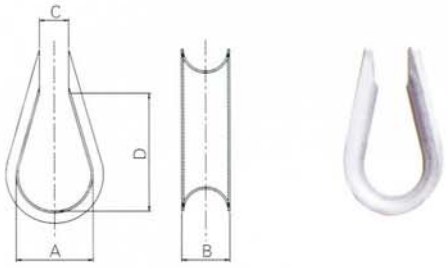


Fig. B3

Table B1 Thimbles

Catalog No.	Guy Wire (mm)	Guy Wire Section (mm)	Dimensions(mm)			
			A	B	C	D
JXH-1	GJ-25	25	39	22	17	64
	GJ-35	35				
JXH-2	GJ-50	50	41	24	19	73
	GJ-70	70				
JXH-3	GJ-95	95	57	30	23	100
	GJ-100	100				

Adjustable Clamp (Fig. B4)

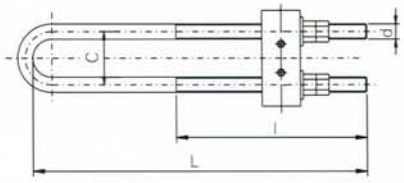


Fig. B4

Table B2 UT Wedge Clamps (Adiustable type)

Catalog No.	Guy Wire (mm)	Guy Wire Dia. (mm)	Dimensions(mm)				Rated Failure Load (kN)	Weight (kg)
			A	B	C	D		
NUT-1	GJ-25~35	6.6~7.8	16	370	200	56	45	2.1
NUT-2	GJ-50~80	9.0~11.5	18	452	250	62	88	3.2
NUT-3	GJ-95~120	12.6~14.0	22	500	300	74	136	4.2

Helical Big Grip Dead End Clamp for Stay Wire (**DCS**)

I. Components (Fig.B5)

Fig. B5

1 Cable Helix Loop: Standard For all kind of fittings
2 Color Code A: Start point of application for small diameter stay wire
B: Start point of application for large diameter stay wire
3 Pitch: The length of a complete helix
4 Label Catalogue No. and dimension etc.
5 6 Long leg/Short leg: the short leg should be applied first in installation

II. Usage

Fix the guy wire and anchor block with large scales

III. Notes

1) Make sure that the DCS and the stay wire keep the same layDirection DCC loop applied to connect with smoothly contoured fittings, such as Hear Eyes, Ball Eyes etc
2) The inside groove widths of the corresponding fittings should be large enough with strong tensile strength and smooth surface.
3) Within the first three month after installation, disassembly is acceptable for not more than two times. But do not modify it under any circumstances after three months.

IV. Catalogue lists

Table A4 Helical Dead-end Clamp & Big-grip Dead-end Clamp for ACSR Stay wire

Catalog No.	Guy Wire Dia. (mm)	Guy Wire (mm)	Length (mm)	Weight (kg)	Color Code
DCS-0660/S	6.60	25	635	0.2	yellow
DCS-0765/S	7.65-7.95	35	711	0.3	black
DCS-0895/S	8.95-9.30	50	901	0.5	orange
DCS-1082/S	10.82-11 10	70	1016	0.8	green
DCS-1250/S	12.50	95	1333	1.7	orange
DCS-1300/S	13.00	100	1333	1.7	yellow
DCS-1400/S	14.00	120	1460	2.2	yellow

Helical Dead End Clamp for Earth Wire (**DCE**)

I. Components (Fig. C1)

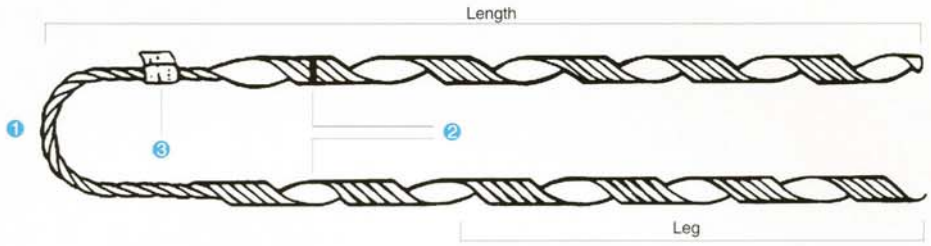


Fig. C1

1. Cabled Loop
2. Color Code Locates the point of installation
3. Label: Shows the catalogue number and the suitable conductor (lines)

II. Characters

1) High Grip Strength
   DCE supplies over 95% of the earth wire UTS.
2) Excellent in electric corrosion proof
   Rods of DCE are the same material as the earth wire,insure the excellent character of electric corrosion proof
3) Simple Design
   The grip LEGs supply the efficient grippage for the conductor while the loop connecting to the matching fittings.
4) Easy Installation
   No specific tools required the installation can be finished Bare-handed by one person, easy and quick.

III. Usage

Fix the overhead earth wire to the dead-end tower

IV. Note

DCE needs extra grounding equipment.

VI. Catalogue lists

Table A6 Helical Dead-end Clamp for Earth Wire

Catalog No.	Earth Wire Dia. (mm)	Earth Wire (mm^2)	Length (mm)	Weight (kg)	Color Code
DCE-0660/S	6.6	25	635	0.2	yellow
DCE-0765/S	7.65~7.95	35	711	0.3	black
DCE-0895/S	8.95~9.30	50	901	0.5	orange
DCE-1082/S	10.82~11 10	70	1016	0.8	green
DCE-1250/S	12.50	95	1333	1.7	orange
DCE-1300/S	13.00	100	1333	1.7	yellow

Table A6 Helical Dead-end Clamp for Al. Clad Steel Earth Wire

Catalog No.	Earth Wire Dia. (mm)	Length (mm)	Weight (kg)	Color Code
DCE-0441/M	4.41~4.60	452	0.1	orange
DCE-0556/M	5.56~5.86	526	0.2	green
DCE-0587/M	5.87~6.00	526	0.2	orange
DCE-0601/M	6.01~6.28	532	0.2	yellow
DCE-0629/M	6.29~6.56	552	0.2	black
DCE-0657/M	6.57~6.86	556	0.2	red
DCE-0687/M	6.87 7 12	607	0.2	blue
DCE-0713/M	7 13~7.39	607	0.2	green
DCE-0740/M	7.40~7.67	615	0.2	yellow
DCE-0768/M	7.68~7.95	656	0.2	black
DCE-0796/M	7.96~8.22	655	0.2	red
DCE-0823/M	8.23~8.54	657	0.2	green
DCE-0855/M	8.55~8.69	726	0.3	orange
DCE-0870/M	8.70~9.02	732	0.3	yellow
DCE-0903/M	9.03~9.25	782	0.5	blue
DCE-0926/M	9.26~9.63	776	0.5	red
DCE-0964/M	9.64~10.01	805	0.5	orange
DCE-1002/M	10.02~10.39	846	0.6	yellow
DCE-1040/M	10.40~10.82	856	0.7	black
DCE-1083/M	10.83~11.23	905	0.7	green
DCE-1124/M	11.24~11.66	946	1 1	yellow
DCE-1167/M	11.67~12.04	957	1 1	red
DCE-1205/M	12.05~12.55	988	1.2	blue
DCE-1256/M	12.56~13.08	1082	1.4	red
DCE-1309/M	13.09~13.61	1196	1.5	red
DCE-1362/M	13.62~14.10	1225	1.5	yellow
DCE-1411/M	14.11~14.48	1257	1.5	blue
DCE-1449/M	14.49~15.01	1275	1.5	orange
DCE-1502/M	15.02~15.54	1277	1.5	green
DCE-1555/M	15.55~16.13	1376	1.5	yellow
DCE-1614/M	16.14~16.79	1425	1.5	black
DCE-1680/M	16.80~17.42	1506	2.3	blue
DCE-1743/M	17.43~18.08	1560	3.1	red
DCE-1809/M	18.09~18.82	1606	3.2	black
DCE-1883/M	18.83~19.61	1806	3.7	yellow

III. Character (Fig. D2)

1 Stress distributed proportioned
Comparing to the traditional one, the SC supply a larger holding area, distribute the stress proportioned, enforce the conductor or earth wire to bear more stress.

2 Low abrasion
The rods of SC supply enough grip strength to resist the lopsided force, avoid the slippage of the conductor or earth wire, lower the abrasion

3 Anti-fatigue
No bolts used directly to conductor or earth wire, the relative stress have been reduced along with the rubber inserts, to lower the dynamic bending stress further

4 Prolong the using time
Using the same material as the conductors the SC have excellent elasticity and hardness, anti-erosion, all these are very helpful to prolong the using time.

5 Good electric character
The tip of the SC rods have been handled specially (Chamfered Ball-ended, and Parrot-Bill to avoid the tip corona, the electromagnetic loss have been reduced greatly due to the special material of the SC.

6 Easy Installation
No specific tools required, the installation can be finished by hands easy and quick.

IV. Note

1) When the line angel ranging at 30°-60° the Double SC Recommended to connect with the insulators directly

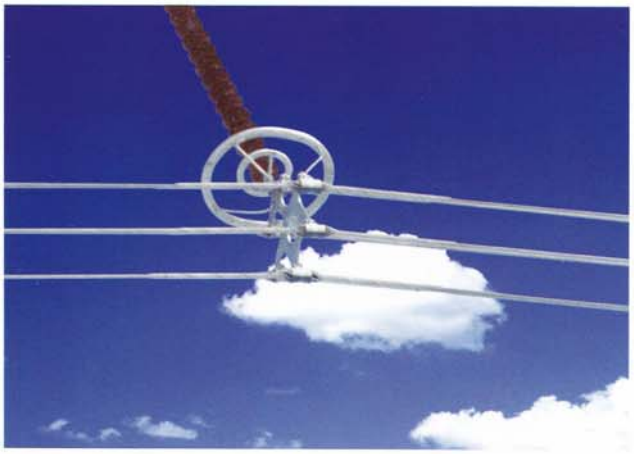
2) the standard armor rods are forbidden to be used as the Substitution of the helical rods of the SC during installation.

V. Ordering information

1) According to the parameters of conductor (construction, cut section, outside Dia. and UTS) choose the. corresponding Catalogue No. in tables VII

2) The lay direction of the SC should be the same as the conductors outside lay as right-hand Please mention when the conductor outside lay is left-hand during your ordering

Fig.D3 Mounting Instance



VI. Components Dimension

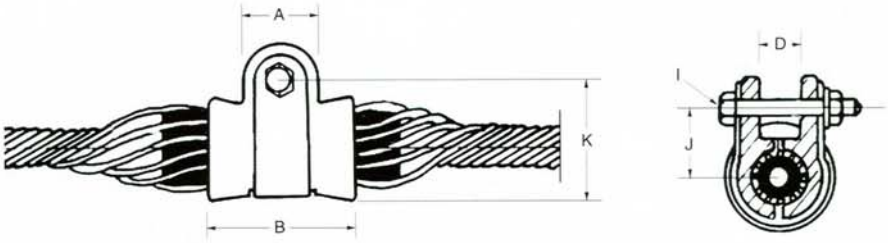


Fig. D4

Table D1

Conductor Dia. (mm)	Dimensions(mm)						Vertical Rupture Strength (kN)
	A	B	D	I	J	K	
7.72~9.89	45	57	17	16	52	82	70
9.90~12.23	45	64	17	16	53	82	70
12.24~13.78	41	76	16	16	50	81	70
13.79~16.39	45	89	18	16	49	83	70
16.40~19.06	45	95	19	16	55	90	70
19.07~23.05	51	115	22	16	60	102	90
23.06~25.54	51	127	22	16	64	111	90
25.55~30.69	57	140	30	16	69	121	110
30.70~34.43	57	152	32	19	80	141	110
34.44~39.56	57	165	35	19	75	140	110
39.57~47.81	64	178	57	19	81	152	110
47.82~56.72	64	190	61	19	89	166	130

VI. Components Dimension

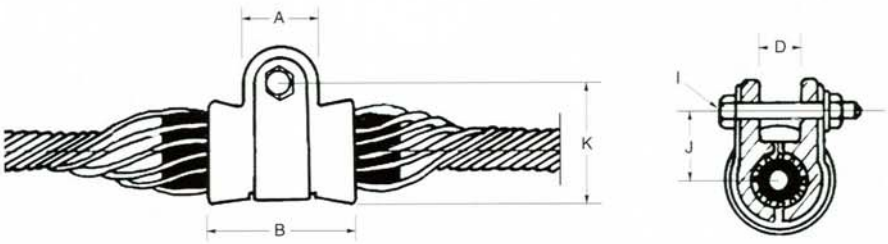


Fig. D4

Table D1

Conductor Dia. (mm)	Dimensions(mm)						Vertical Rupture Strength (kN)
	A	B	D	I	J	K	
7.72~9.89	45	57	17	16	52	82	70
9.90~12.23	45	64	17	16	53	82	70
12.24~13.78	41	76	16	16	50	81	70
13.79~16.39	45	89	18	16	49	83	70
16.40~19.06	45	95	19	16	55	90	70
19.07~23.05	51	115	22	16	60	102	90
23.06~25.54	51	127	22	16	64	111	90
25.55~30.69	57	140	30	16	69	121	110
30.70~34.43	57	152	32	19	80	141	110
34.44~39.56	57	165	35	19	75	140	110
39.57~47.81	64	178	57	19	81	152	110
47.82~56.72	64	190	61	19	89	166	130

VII. Catalogue lists

Table D2 Helical Suspension Clamp for Earth Wire

Catalog No.	Conductor Dia. (mm)	Length (mm)	Weight (kg)	Color Code	Vertical Rupture Strength (kN)
ESC-0690/S	6.90~7.20	660	1.2	blue	70
ESC-0772/S	7.72~8.01	660	1.2	black	
ESC-0832/S	8.32~8.69	660	1.2	purple	
ESC-0870/S	8.70~9.03	660	1.2	brown	
ESC-0953/S	9.53~9.89	660	1.3	blue	
ESC-0990/S	9.90~10.27	900	1 7	red	
ESC-1028/S	10.28~10.62	900	1 7	brown	
ESC-1063/S	10.63~11.03	900	1.7	black	
ESC-1104/S	11.04~11.43	900	1.7	green	
ESC-1196/S	11.96~12.22	900	1.8	brown	
ESC-1223/S	12.23~12.70	1140	1.9	blue	

Table D3 Helical Suspension Clamp for ACSR/Al. Clad Steel Earth Wire

Catalog No.	Conductor Dia. (mm)	ACSR	Length (mm)	Weight (kg)	Color Code	Vertical Rupture Strength (kN)
ESC-0690/M	6.90~7.21		660	1 1	blue	70
ESC-0722/M	7.22~7.48		660	1 1	red	
ESC-0749/M	7.49~7.72		660	1 1	black	
ESC-0773/M	7.73~8.01		660	1.1	brown	
ESC-0802/M	8.02~8.31		660	1 1	purple	
ESC-0832/M	8.32~8.68		660	1.1	green	
ESC-0869/M	8.69~9.03		660	1 1	black	
ESC-0904/M	9.04~9.48		660	1.1	brown	
ESC-0949/M	9.49~9.89		660	1 1	red	
ESC-0990/M	9.90~10.26		914	1.6	blue	
ESC-1028/M	10.28~10.64		914	1.6	orange	
ESC-1063/M	10.63~11.01		914	1.6	brown	
ESC-1102/M	11.02~11.43		914	1.6	purple	
ESC-1144/M	11.44~11.89	50/30	914	1 7	green	
ESC-1190/M	11.90~12.22		914	1 7	black	
ESC-1348/M	13.48~13.79	70/40	1041	1.2	yellow	
ESC-1576/M	15.76~16.38	95/55	1270	1.5	brown	
ESC-1758/M	17.58~18.08	120/70	1372	1.9	yellow	

Table D4 Helical Double Suspension Clamp for Steel Strand Earth Wire

Catalog No.	Conductor Dia (mm)	Length (mm)	Weight (kg)	Color Code	Vertical Rupture Strength (kN)
ESC-0690D/S	6.90~7.20	960	2.1	blue	70
ESC-0772D/S	7.72~8.01	960	2.1	bluck	
ESC-0832D/S	8.32~8.69	960	2.2	purple	
ESC-0870D/S	8.70~9.03	960	2.2	brown	
ESC-0953D/S	9.53~9.89	960	2.2	blue	
ESC-0990D/S	9.90~10.27	1220	2.8	red	
ESC-1028D/S	10.28~10.62	1220	2.9	brown	
ESC-1063D/S	10.63~11.03	1220	2.9	black	
ESC-1104D/S	11.04~11.43	1220	2.9	green	
ESC-1196D/S	11.96~12.22	1220	3.0	brown	
ESC-1223D/S	12.23~12.70	1440	3.0	blue	

Table D5 Helical Double Suspension Clamp for ACSR/Al. Clad Steel Earth Wire

Catalog No.	Catalog No.	ACSR	Length (mm)	Weight (kg)	Color Code	Vertical Rupture Strength (kN)
ESC-0690D/M	6.90~7.21		962	2.0	blue	70
ESC-0722D/M	7.22~7.48		962	2.0	red	
ESC-0749D/M	7.49~7 72		962	2.0	black	
ESC-0773D/M	7 73~8.01		962	2.0	brown	
ESC-0802D/M	8.02~8.31		962	2.0	peolle	
ESC-0832D/M	8.32~8.68		962	2.0	green	
ESC-0869D/M	8.69~9.03		962	2.0	black	
ESC-0904D/M	9.04~9.48		962	2.0	brown	
ESC-0949D/M	9.49~9.89		960	2.0	red	
ESC-0990D/M	9.90~10.26		1220	2.7	blue	
ESC-1028D/M	10.28~10.64		1220	2.7	orange	
ESC-1063D/M	10.63~11.01		1220	2.7	brown	
ESC-1102D/M	11.02~11.43		1220	2.7	purple	
ESC-1144D/M	11.44~11.89	50/30	1220	2.8	green	
ESC-1190D/M	11.90~12.22		1220	2.8	black	
ESC-1348D/M	13.48~13.79	70/40	1352	2.0	yellow	
ESC-1576D/M	15.76~16.38	95/55	1682	2.3	brown	
ESC-1758D/M	17.58~18.08	120/70	1832	3.2	yellow	

Table D6 Helical Suspension Clamp for ACSR (<330kV)

Catalog No.	Suitable Conductor ACSR	Conductor Dia. (mm)	Length (mm)	Weight (kg)	Color Code	Vertical Rupture Strength (kN)
SC-0802/R	35/6	8.02~8.31	660	1 1	red	
SC-0953/R	50/8	9.53~9.88	660	1 1	yellow	
SC-1105/R	70/10	11.05~11.45	914	1.2	blue	
SC-1146/R	50/30	11.46~11.94	914	1.2	white	
SC-1349/R	70/40 95/15	13.49~13.78	1041	1.2	yellow	
SC-1379/R	95/20	13.79~14.10	1118	1.3	black	
SC-1411/R	120/7	14.11~14.56	1118	1.4	white	
SC-1457/R	120/20	14.57~15.10	1143	1.4	brown	
SC-1542/R	120/25	15.42~15.74	1168	1.4	purple	
SC-1575/R	95/55 150/8	15.75~16.39	1270	1.5	red	70
SC-1640/R	150/20 150/25	16.40~17 10	1372	1.8	blue	
SC-1711/R	150/35	17.11~17.54	1372	1.8	green	
SC-1755/R	120/70 185/10	17.55~18.04	1372	1.9	yellow	
SC-1859/R	185/25 180/30 210/10	18.59~19.00	1422	2.0	white	
SC-1952/R	180/45 210/25	19.52~20.10	1524	2.6	orange	
SC-2011/R	210/35 210/50	20.11~20.94	1549	2.8	purple	
SC-2148/R	240/30 240/40	21.48~22.09	1626	2.9	blue	
SC-2210/R	240/55	22.10~22.69	1651	3.1	green	
SC-2270/R	300/15	22.70~23.05	1651	3.1		90
SC-2339/R	300/20 300/25	23.39~23.79	1676	4.1	black	
SC-2380/R	300/40 300/50	23.80~24.45	1702	4.1	white	
SC-2508/R	300/70	25.08~25.54	1753	4.4	orange	

Table D7 Helical Suspension Clamp for ACSR (<330kV)

Catalog No.	Suitable Conductor ACSR	Conductor Dia. (mm)	Length (mm)	Weight (kg)	Color Code	Vertical Rupture Strength (kN)
SC-2643/R	400/20 400/25 400/35	26.43~27.29	2083	5.7	blue	110
SC-2730/R	400/50	27.30~27.69	2083	5.9	green	
SC-2770/R	400/65	27.70~28.40	2083	5.9	yellow	
SC-2888/R	400/95	28.88~29.26	2083	5.9	white	
SC-2987/R	500/35 500/45	29.87~30.68	2083	6.0	orange	
SC-3069/R	500/65	30.69~31 14	2235	8.3	purple	
SC-3339/R	630/45	33.39~34.42	2235	8.8	yellow	
SC-3443/R	630/55 630/80	34.43~35.41	2235	9.1	black	
SC-3753/R	800/55	37.53~38.51	2235	9.7	purple	
SC-3852/R	800/70 800/100	38.52~39.55	2235	9.7	red	

Table D8 Helical Suspension Clamp for AAAC (<330kV)

Catalog No.	Suitable Conductor AAAC	Conductor Dia. (mm)	Length (mm)	Weight (kg)	Color Code	Vertical Rupture Strength (kN)
SC-1224/A	95	12.24~12.69	1016	1 1	red	70
SC-1441/A	120	14.41~14.56	1118	1.4	white	
SC-1575/A	150	15.75~16.39	1270	1.5	red	
SC-1711/A	185	17 11~17.54	1372	1.8	green	70
SC-1859/A	210	18.59~19.00	1422	2.0	white	
SC-1952/A	240	19.52~20.10	1524	2.6	orange	90
SC-2210/A	300	22.10~22.69	1651	3.1	green	
SC-2555/A	400	25.55~25.97	2032	5.5	purple	110
SC-2888/A	500	28.88~29.26	2083	5.9	white	
SC-3200/A	630	32.00~32.67	2235	8.8	blue	
SC-3664/A	800	36.64~37.52	2235	8.8	orange	

Table D9 Helical Suspension Clamp for ACSR/AAAC (Ultrahigh Voltage)

Catalog No.	Suitable Conductor		Conductor Dia. (mm)	Length (mm)	Weight (kg)	Color Code	Vertical Rupture Strength (kN)
	ACSR	AAAC					
SC-2338U/N	300/20, 300/25		23.38~23.80	1678	4.1	black	90
SC-2381U/N	300/40, 300/50		23.81~24.45	1705	4.1	white	
SC-2506U/N	300/70		25.06~25.59	1754	4.4	orange	
SC-2560U/N		400	25.60~25.00	2035	5.5	purple	110
SC-2646U/N	400/20, 400/25, 400/35		26.46~27.30	2085	5.7	blue	
SC-2731U/N	400/50		27.31~27.68	2086	5.9	green	
SC-2769U/N	400/65		27.69~28.39	2086	5.9	yellow	
SC-2890U/N	400/9	500	28.90~29.29	2086	5.9	white	
SC-2982U/N	500/35, 500/45		29.82~30.63	2088	6.0	orange	
SC-3070U/N	500/65		30.70~31 16	2237	8.3	purple	
SC-3220U/N		630	32.20~32.86	2238	8.8	blue	
SC-3339U/N	630/45, 630/55		33.39~34.42	2238	8.8	yellow	
SC-3443U/N	630/80		34.43~35.40	2239	9.1	black	
SC-3660U/N		800	36.60~37.48	2240	9.4	orange	
SC-3755U/N	800/55		37.55~38.51	2245	9.7	purple	
SC-3852U/N	800/70, 800/100		38.52~39.50	2245	9.7	red	

Table D10 Helical Double Suspension Clamp for ACSR/AAAC (<330kV)

Catalog No.	Suitable Conductor		Conductor Dia. (mm)	Length (mm)	Weight (kg)	Color Code	Vertical Rupture Strength (kN)
	ACSR	AAAC					
SC-0802D/N	35/6		8.02~8.31	972	1.8	red	140
SC-0953D/N	50/8		9.53~9.88	972	1.8	purple	
SC-1105D/N	70/10		11.05~11.45	1222	1.9	blue	
SC-1146D/N	50/30		11.46~11.94	1222	1.9	white	
SC-1224D/N		95	12.24~12.69	1352	2.0	red	
SC-1349D/N	70/40 95/15		13.49~13.78	1354	2.0	yellow	
SC-1379D/N	95/20		13.79~14.10	1472	2.2	black	
SC-1411D/N	120/7	120	14.11~14.56	1474	2.3	white	
SC-1457D/N	120/20		14.57~15.10	1474	2.3	brown	
SC-1575D/N	95/55 120/25 150/8	150	15.75~16.39	1684	2.3	red	
SC-1460D/N	150/20 150/25		16.40~17 10	1832	3.0	blue	
SC-1711D/N	150/35	185	17 11~17.54	1832	3.0	green	
SC-1755D/N	120/70 185/10		17.55~18.04	1834	3.2	yellow	
SC-1859D/N	185/25 180/30 210/10	210	18.59~19.00	1834	3.2	white	
SC-1952D/N	180/45 210/25	240	19.52~20.10	1980	4.2	orange	180
SC-2011D/N	210/35 210/50		20.11~20.94	1982	4.3	purple	
SC-2148D/N	240/30 240/40		21.48~22.09	2082	4.5	blue	
SC-2210D/N	240/55	300	22.10~22.69	2080	4.7	green	
SC-2270D/N	300/15		22.70~23.05	2080	4.7	green	
SC-2339D/N	300/20 300/25		23.39~23.79	2290	5.6	black	
SC-2380D/N	300/40 300/50		23.80~24.45	2290	5.6	white	
SC-2508D/N	300/70		25.08~25.54	2294	5.8	orange	

Table D11 Helical Double Suspension Clamp for ACSR/AAAC (<330kV)

Catalog No.	Suitable Conductor		Conductor Dia. (mm)	Length (mm)	Weight (kg)	Color Code	Vertical Rupture Strength (kN)
	ACSR	AAAC					
SC-2555D/N		400	25.55~25.97	2740	8.8		220
SC-2643D/N	400/20 400/25 400/35		26.43~27.29	2742	8.8		
SC-2730D/N	400/50		27.30~27.69	2740	9.2	green	
SC-2770D/N	400/65		27.70~28.40	2740	9.2	yellow	
SC-2888D/N	400/95	500	28.88~29.26	2743	9.3	white	
SC-2987D/N	500/35		29.87~30.68	2743	9.3	orange	
SC-3069D/N	500/45 500/65		30.69~31 14	2970	13.0	purple	
SC-3200D/N		630	32.00~32.66	2975	13.6	blue	
SC-3339D/N	630/45 630/55		33.39~34.42	2975	13.6	yellow	
SC-3443D/N	630/80		34.43~35.41	3052	15.2	black	
SC-3664D/N		800	36.64~37.52	3052	15.2	orange	
SC-3753D/N	800/55		37.53~38.51	3055	15.2	purple	
SC-3852D/N	800/70 800/100		38.52~39.55	3055	15.2	red	

Table D11 Helical Double Suspension Clamp for ACSR/AAAC (Ultrahigh Voltage)

Catalog No.	Suitable Conductor		Conductor Dia. (mm)	Length (mm)	Weight (kg)	Color Code	Vertical Rupture Strength (kN)
	ACSR	AAAC					
SC-2338DU/N	300/20 300/25		23.38~23.80	2288	5.6	black	180
SC-2381DU/N	300/40 300/50		23.81~24.45	2288	5.6	white	
SC-2506DU/N	300/70		25.06~25.59	2288	5.8	orange	
SC-2560DU/N		400	25.60~26.00	2745	8.8	purple	220
SC-2646DU/N	400/20 400/25 400/35		26.46~27.30	2745	8.8	blue	
SC-2731DU/N	400/50		27.31~27.68	2745	9.2	green	
SC-2769DU/N	400/65		27.69~28.39	2745	9.2	yellow	
SC-2890DU/N	400/95	500	28.90~29.29	2745	9.4	white	
SC-2982DU/N	500/35 500/45		29.82~30.63	2745	9.4	orange	
SC-3070DU/N	500/65		30.70~31 16	2974	13.0	purple	
SC-3220DU/N		630	32.20~32.86	2974	13.6	blue	
SC-3339DU/N	630/45 630/55		33.39~34.42	2974	13.6	yellow	
SC-3443DU/N	630/80		34.43~35.40	3050	15.2	black	
SC-3660DU/N		800	36.60~37.48	3050	15.2	orange	
SC-3755DU/N	800/55		37.55~38.51	3050	15.2	purple	
SC-3852DU/N	800/70 800/100		38.52~39.50	3050	15.2	Red	

Triangle Yoke Plate

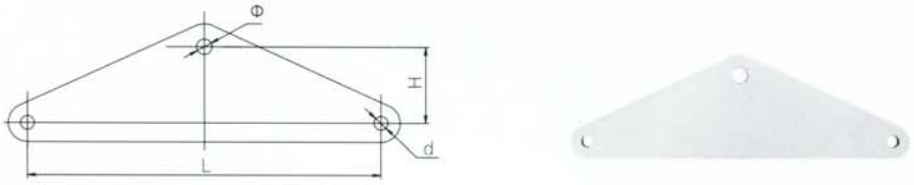


Fig. D7

Table D15

Catalog No.	Dimensions (mm)				Rated Breaking Strength (kN)	Weight (kg)
	L	Φ	d	h		
XLB-1035	300	20	18	70	100	4.9
XLB-1046	460	20	18	70	100	5.4
XLB-1056	560	20	18	90	100	7.2
XLB-1066	660	20	18	110	100	9.2
XLB-1246	460	22	18	80	120	5.7
XLB-1256	560	22	18	100	120	7.6
XLB-1266	660	22	18	130	150	10.2

Socket Clevis

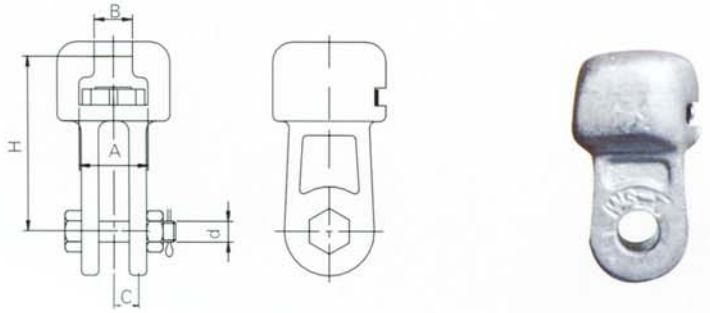


Fig. D8

Table D16

Catalog No.	Dimensions (mm)					Rated Breaking Strength (kN)	Weight (kg)
	C	B	A	d	H		
WS-7	18	19.2	34.5	16	70	70	0.97
WS-10	20	19.2	34.5	18	85	100	1.20
WS-16	26	23.0	42.5	24	95	160	2.64
WS-21R	30	27.5	51.0	27	100	210	4.30
WS-30R	38	27.5	51.0	36	110	300	5.70

Triangle Yoke Plate

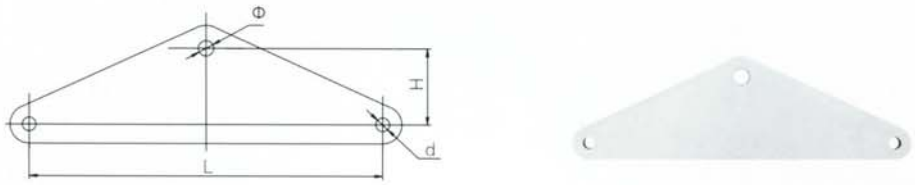


Fig. D7

Table D15

Catalog No.	Dimensions (mm)				Rated Breaking Strength (kN)	Weight (kg)
	L	Φ	d	h		
XLB-1035	300	20	18	70	100	4.9
XLB-1046	460	20	18	70	100	5.4
XLB-1056	560	20	18	90	100	7.2
XLB-1066	660	20	18	110	100	9.2
XLB-1246	460	22	18	80	120	5.7
XLB-1256	560	22	18	100	120	7.6
XLB-1266	660	22	18	130	150	10.2

Socket Clevis

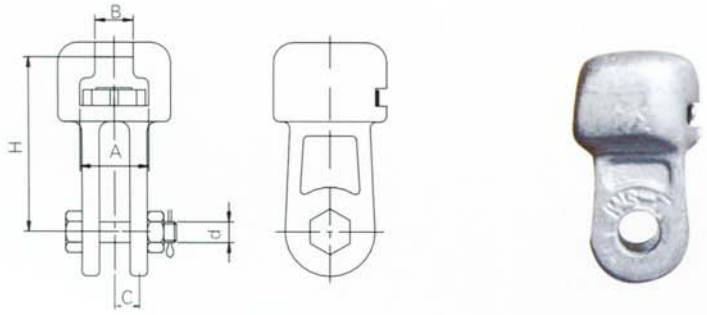


Fig. D8

Table D16

Catalog No.	Dimensions (mm)					Rated Breaking Strength (kN)	Weight (kg)
	C	B	A	d	H		
WS-7	18	19.2	34.5	16	70	70	0.97
WS-10	20	19.2	34.5	18	85	100	1.20
WS-16	26	23.0	42.5	24	95	160	2.64
WS-21R	30	27.5	51.0	27	100	210	4.30
WS-30R	38	27.5	51.0	36	110	300	5.70

Socket Eye

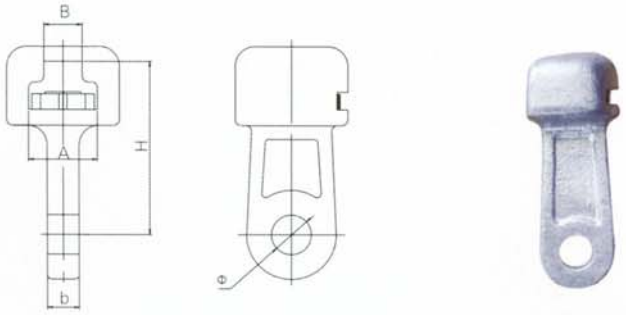


Fig. D9

Table D17

Catalog No.	Dimensions (mm)					Rated Breaking Strength (kN)	Weight (kg)
	b	B	A	H	Φ		
W-7A	16	19.2	34.5	70	20	70	0.82
W-7B	16	19.2	34.5	115	20	70	1.01

Link Plate

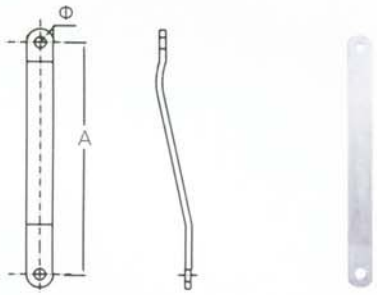


Fig. D10

Table D18

Catalog No.	Dimensions (mm)		Vertical Rupture Strength (kN)
	A	Φ	
PS-0740	400	18	70 (set)
PS-1040	400	20	100 (set)

Helical Armor Rods (**AM**) / Armor Rods short type (**SAM**)

I. Usage and Structure (Fig. E1)

Fig. E1

1) To enhance hardness and reduce vibration of conductor wire, help to get rid of the abrasion when installed in boat shaped clamp or insulator
2) To be applied to repair the ACSR or AAC when its outside layer's broken ranged from 25%–50%. Resume 100% of the original mechanical strength and electric conducting capability

II. Character

1) To ensure the steady grip strength by wrapped it to the outside of the conductor or ground wire, avoid the abrasion properly
2) Good character of anti-erosion: the surface of the products have been processed to be antirust, work normally under bad environment.
3) Easy Installation
   No specific tools required, the installation can be finished bare-handed by one person, easy and quick.
4) Compatibility
   The AM /SAM are fully compatible with various of hardware fittings.

III. Ordering information

1) According to the parameters of the conductor (construction, cut section, outside dia. and UTS) choose the corresponding Catalogue No. in table of IV
2) The lay direction of the AM should be the same as the conductors outside lay as right-hand. Please mention when the conductor outside lay is left-hand during your Ordering.

IV. Catalogue lists

Table E1 Helical Armor Rods for ACSR/AAAC

Catalog No.	Suitable Conductor		Conductor Dia. (mm)	Length (mm)	Weight (kg)	Color Code
	ACSR	AAAC				
AM-0802/N	35/6		8.02~8.30	1110	0.3	red
AM-0881/N		50	8.81~9.29	1212	0.4	green
AM-0931/N	50/8		9.31~9.88	1272	0.4	black
AM-0989/N			9.89~10.52	1320	0.4	yellow
AM-1053/N		70	10.53~11.06	1320	0.4	brown
AM-1111/N	70/10, 50/30		11 11~11.77	1370	0.6	blue
AM-1247/N		95	12.47~13.22	1372	0.6	green
AM-1322/N	70/40, 95/15, 95/20		13.22~13.99	1474	0.7	black
AM-1400/N	120/7	120	14.00~14.84	1522	0.8	red
AM-1485/N	120/20		14.85~15.37	1582	0.9	black
AM-1539/N	95/55, 120/25, 150/8	150	15.39~16.00	1632	1.0	purple
AM-1662/N	150/20, 150/25		16.62~17.24	1680	1 1	brown
AM-1725/N	150/35	185	17.25~17.85	1732	1.3	blue
AM-1786/N	120/70, 185/10	210	17.86~18.80	1832	1.5	green
AM-1881/N	185/25, 185/30, 185/40, 210/10		18.81~19.84	1832	1.5	orange
AM-1985/N	210/25, 210/35		19.85~20.67	1934	2.0	purple
AM-2068/N	210/50	240	20.68~21.46	1934	2.0	red
AM-2147/N	240/30, 240/40, 240/55, 300/15	300	21.47~23.05	1982	2.2	blue
AM-2306/N	300/20		23.06~23.62	2030	2.5	green
AM-2363/N	300/25, 300/40, 300/50		23.63~24.79	2230	2.5	white
AM-2480/N	300/70		24.80~25.80	2345	2.5	yellow
AM-2581/N		400	25.81~26.29	2385	4.0	brown
AM-2630/N	400/20, 400/25, 400/35		26.30~27.00	2432	4.2	blue
AM-2739/N	400/50		27.39~27.89	2432	4.2	green
AM-2790/N	400/65		27.90~28.91	2545	4.7	orange
AM-2892/N	400/95		28.92~29.50	2545	4.8	purple
AM-2951/N	500/35, 500/45		29.51~30.66	2545	5.2	red
AM-3067/N	500/65		30.67~32.20	2545	5.8	black
AM-3221/N	600/45		32.21~33.70	2545	5.9	white
AM-3371/N	630/55		33.71~35.30	2545	6.2	yellow

Table E2 Helical Armor Rods for ACSR/AAAC

Catalog No.	Suitable Conductor ACSR	Conductor Dia. (mm)	Length (mm)	Weigth (kg)	Color Code
AM-0802D/N	35/6	8.02~8.31	1420	0.4	red
AM-0881D/N		8.81~9.30	1520	0.4	green
AM-0931D/N	50/8	9.31~9.88	1580	0.5	black
AM-1053D/N		10.53~11.07	1630	0.5	brown
AM-1111D/N	70/10, 50/30	11 11~11.76	1680	0.7	blue
AM-1247D/N		12.47~13.23	1680	0.7	green
AM-1322D/N	70/40, 95/15, 95/20	13.22~13.99	1780	0.8	black
AM-1400D/N	120/7	14.00~14.84	1830	1.0	red
AM-1485D/N	120/20	14.85~15.38	1880	1 1	black
AM-1539D/N	95/55, 120/25, 150/8	15.39~16.00	1930	1 1	purple
AM-1662D/N	150/20, 150/25	16.62~17.24	1980	1.3	brown
AM-1725D/N	150/35	17.25~17.85	2030	1.5	blue
AM-1786D/N	120/70, 185/10	17.86~18.80	2130	1.6	green

Table E3 Helical Armor Rods for Steel Strand

Catalog No.	Suitable Steel Strand(mm)	Conductor Dia. (mm)	Length (mm)	Weigth (kg)	Color Code
AM-0622/S	25	6.22~6.59	1022	0.3	yellow
AM-0738/S	35	7.38~7.84	1110	0.4	red
AM-0881/S	50	8.81~9.45	1212	0.6	orange
AM-1054/S	70	10.54~11 10	1320	0.9	green
AM-1111/S	80	11 11~11.77	1372	1.2	yellow
AM-1245/S	95	12.45~13.21	1422	1.4	blue

Table E4 Helical Armor Rods for Steel Strand (double support points type)

Catalog No.	Suitable Steel Strand(mm)	Conductor Dia. (mm)	Length (mm)	Weigth (kg)	Color Code
AM-0622D/S	25	6.22~6.59	1320	0.4	yellow
AM-0738D/S	35	7.38~7.84	1422	0.6	red
AM-0881D/S	50	8.81~9.45	1522	0.8	orange
AM-1054D/S	70	10.54~11 10	1622	1.2	green
AM-1111D/S	80	11 11~11.77	1677	1.4	yellow
AM-1245D/S	95	12.45~13.21	1724	1.7	blue

Table E5 Helical Armor Rods for Al. Clad Steel Strands

Catalog No.	Conductor Dia. (mm)	Length (mm)	Weigth (kg)	Color Code
AM-0344/L	3.44~3.64	872	0.1	blue
AM-0365/L	3.65~3.88	912	0.2	black
AM-0389/L	3.89~4.06	972	0.2	red
AM-0407/L	4.07~4.27	972	0.2	yellow
AM-0428/L	4.28~4.54	1020	0.3	orange
AM-0455/L	4.55~4.80	1020	0.3	green
AM-0481/L	4.81~4.97	1020	0.3	blue
AM-0498/L	4.98~5.28	1022	0.3	black
AM-0529/L	5.29~5.54	1022	0.3	red
AM-0555/L	5.55~5.73	1022	0.3	green
AM-0574/L	5.74~6.00	1015	0.3	black
AM-0601/L	6.01~6.34	1024	0.4	yellow
AM-0634/L	6.34~6.70	1070	0.5	red
AM-0671/L	6.71~7.06	1070	0.5	blue
AM-0707/L	7.07~7.51	1122	0.5	red
AM-0752/L	7.52~7.98	1172	0.5	black
AM-0799/L	7.99~8.47	1222	0.6	green
AM-0848/L	8.48~8.97	1270	0.6	yellow
AM-0898/L	8.98~9.46	1272	0.8	blue
AM-0947/L	9.47~9.98	1270	0.8	orange
AM-0999/L	9.99~10.39	1325	0.9	red
AM-1040/L	10.40~10.82	1370	0.9	black
AM-1083/L	10.83~11.42	1420	1.0	green
AM-1143/L	11.43~12.09	1424	1.2	yellow
AM-1210/L	12.10~12.81	1424	1.2	blue
AM-1282/L	12.82~13.57	1470	1.5	red
AM-1358/L	13.58~14.33	1524	1.8	yellow
AM-1434/L	14.34~15.05	1523	2.1	orange
AM-1506/L	15.06~15.87	1523	2.1	black
AM-1588/L	15.88~16.90	1570	2.5	green
AM-1691/L	16.91~17.82	1575	2.7	yellow
AM-1783/L	17.83~18.69	1620	3.0	blue
AM-1870/L	18.70~19.52	1620	3.0	black
AM-1953/L	19.53~20.05	1670	3.3	red
AM-2006/L	20.06~21.38	1722	3.4	yellow
AM-2139/L	21.39~21.64	1782	3.8	orange
AM-2265/L	22.65~23.86	1833	4.1	black
AM-2387/L	23.87~25.31	1884	4.3	green
AM-2532/L	25.32~26.80	1935	5.4	red

Table E6 Helical Armor Rods for Al. Clad Steel Strands (double support points type)

Catalog No.	Conductor Dia. (mm)	Length (mm)	Weigth (kg)	Color Code
AM-0344D/L	3.44~3.64	1172	0.2	blue
AM-0365D/L	3.65~3.88	1222	0.3	black
AM-0389D/L	3.89~4.06	1270	0.3	red
AM-0407D/L	4.07~4.27	1270	0.3	yellow
AM-0428D/L	4.28~4.54	1323	0.4	orange
AM-0455D/L	4.55~4.80	1323	0.4	green
AM-0481D/L	4.81~4.97	1323	0.4	blue
AM-0498D/L	4.98~5.28	1323	0.4	black
AM-0529D/L	5.29~5.54	1323	0.4	red
AM-0555D/L	5.55~5.73	1323	0.4	green
AM-0574D/L	5.74~6.00	1323	0.4	black
AM-0601D/L	6.01~6.34	1323	0.5	yellow
AM-0634D/L	6.34~6.70	1372	0.6	red
AM-0671D/L	6.71~7.06	1370	0.6	blue
AM-0707D/L	7.07~7.51	1422	0.6	red
AM-0752D/L	7.52~7.98	1470	0.7	black
AM-0799D/L	7.99~8.47	1522	0.7	green
AM-0848D/L	8.48~8.97	1580	0.8	yellow
AM-0898D/L	8.98~9.46	1580	1.0	blue
AM-0947D/L	9.47~9.98	1580	1.0	orange
AM-0999D/L	9.99~10.39	1624	1.0	red
AM-1040D/L	10.40~10.82	1680	1 1	black
AM-1083D/L	10.83~11.42	1733	1.3	green
AM-1143D/L	11.43~12.09	1733	1.5	yellow
AM-1210D/L	12.10~12.81	1733	1.5	blue
AM-1282D/L	12.82~13.57	1775	1.8	red
AM-1358D/L	13.58~14.33	1822	2.2	yellow
AM-1434D/L	14.34~15.05	1822	2.5	orange
AM-1506D/L	15.06~15.87	1822	2.5	black
AM-1588D/L	15.88~16.90	1874	3.1	green
AM-1691D/L	16.91~17.82	1874	3.1	yellow
AM-1783D/L	17.83~18.69	1920	3.5	blue
AM-1870D/L	18.70~19.52	1935	3.5	black
AM-1953D/L	19.53~20.05	1972	3.9	red
AM-2006D/L	20.06~21.38	2030	4.0	yellow
AM-2139D/L	21.39~21.64	2092	4.4	orange
AM-2265D/L	22.65~23.86	2130	4.8	black
AM-2387D/L	23.87~25.31	2185	4.9	green
AM-2532D/L	25.32~26.80	2245	6.3	red

Table E7 Helical Short Armor Rods for ACSR/AAAC

Catalog No.	Suitable Conductor		Conductor Dia. (mm)	Length (mm)	Weigth (kg)	Color Code
	ACSR	AAAC				
SAM-0802/N	35/6		8.02~8.30	532	0.12	red
SAM-0881/N		50	8.81~9.29	580	0.14	green
SAM-0931/N	50/8		9.31~9.88	584	0.17	black
SAM-1053/N		70	10.53~11.06	630	0.21	brown
SAM-1111/N	70/10, 50/30		11 11~11.77	682	0.26	blue
SAM-1247/N		95	12.47~13.22	730	0.28	green
SAM-1322/N	70/40, 95/15, 95/20		13.22~13.99	732	0.31	black
SAM-1400/N	120/7	120	14.00~14.84	780	0.35	red
SAM-1485/N	120/20		14.85~15.37	784	0.41	black
SAM-1539/N	95/55, 120/25, 150/8	150	15.39~16.00	832	0.48	purple
SAM-1662/N	150/20, 150/25		16.62~17.24	880	0.54	brown
SAM-1725/N	150/35	185	17.25~17.85	884	0.65	blue
SAM-1786/N	120/70, 185/10	210	17.86~18.80	940	0.98	green
SAM-1881/N	185/25, 185/30, 185/40, 210/10 210/25	240	18.81~20.12	992	1.09	orange
SAM-2014/N	210/50,210/35		20.14~21.32	992	1 12	purple
SAM-2133/N	240/30, 240/40, 240/55	300	21.33~22.80	1044	1 19	blue
SAM-2281/N	300/15,300/20,300/25,300/40		22.81~24.23	1092	1.21	green
SAM-2424/N	300/50		24.24~25.00	1140	1.23	white
SAM-2501/N	300/70		25.01~25.79	1144	1.26	yellow
SAM-2580/N	400/20, 400/25, 400/35	400	25.80~27.05	1190	1.36	brown
SAM-2706/N	400/50		27.06~27.63	1244	1.51	green
SAM-2764/N	400/65,400/95	500	27.64~29.30	1240	1.72	orange
SAM-2931/N	500/35, 500/45		29.31~30.68	1294	1.89	purple

Table E8 Helical Short Armor Rods for ACSR/AAAC (double support points type)

Catalog No.	Suitable Conductor		Conductor Dia. (mm)	Length (mm)	Weigth (kg)	Color Code
	ACSR	AAAC				
SAM-0802D/N	35/6		8.02~8.30	842	0.17	red
SAM-0881D/N		50	8.81~9.29	890	0.20	green
SAM-0931D/N	50/8		9.31~9.88	894	0.21	black
SAM-1053D/N		70	10.53~11.06	942	0.26	brown
SAM-1111D/N	70/10, 50/30		11 11~11.77	994	0.29	blue
SAM-1247D/N		95	12.47~13.22	1040	0.33	green
SAM-1322D/N	70/40, 95/15, 95/20		13.22~13.99	1040	0.33	black
SAM-1400D/N	120/7	120	14.00~14.84	1092	0.36	red
SAM-1485D/N	120/20		14.85~15.37	1094	0.49	black
SAM-1539D/N	95/55, 120/25, 150/8	150	15.39~16.00	1142	0.52	purple
SAM-1662D/N	150/20, 150/25		16.62~17.24	1193	0.56	brown
SAM-1725D/N	150/35	185	17.25~17.85	1193	0.56	blue
SAM-1786D/N	120/70, 185/10	210	17.86~18.80	1254	0.70	green
SAM-1881D/N	185/25, 185/30, 185/40, 210/10 210/25	240	18.81~20.12	1292	0.85	orange
SAM-2014D/N	210/50,210/35		20.14~21.32	1294	0.92	purple
SAM-2133D/N	240/30, 240/40, 240/55	300	21.33~22.80	1352	1.02	blue
SAM-2281D/N	300/15,300/20,300/25,300/40		22.81~24.23	1390	1.32	green
SAM-2424D/N	300/50		24.24~25.00	1454	1.54	white
SAM-2501D/N	300/70		25.01~25.79	1464	1.63	yellow
SAM-2580D/N	400/20, 400/25, 400/35	400	25.80~27.05	1490	1.68	brown
SAM-2706D/N	400/50		27.06~27.63	1552	1.78	green
SAM-2764D/N	400/65,400/95	500	27.64~29.30	1572	2.10	orange
SAM-2931D/N	500/35, 500/45		29.31~30.68	1590	2.20	purple

Table E9 Helical Armor Rods for ACSR/AAAC (double support points type)

Catalog No.	Suitable Conductor		Conductor Dia. (mm)	Length (mm)	Weigth (kg)	Color Code
	ACSR	AAAC				
UAM-2307/N	300/20		23.07~23.63	2032	2.5	green
UAM-2361/N	300/25, 300/40, 300/50		23.61~24.77	2233	2.7	white
UAM-2480/N	300/70		24.80~25.79	2340	2.5	yellow
UAM-2580/N		400	25.80~26.28	2382	4.2	brown
UAM-2629/N	400/20, 400/25, 400/35		26.29~27.03	2432	4.2	blue
UAM-2740/N	400/50		27.40~27.88	2432	4.2	green
UAM-2788/N	400/65	500	27.88~28.90	2540	4.7	orange
UAM-2893/N	400/95		28.93~29.47	2544	4.8	purple
UAM-2948/N	500/35, 500/45		29.48~30.67	2544	5.2	red
UAM-3068/N	500/65	600	30.68~32.20	2544	6.1	black
UAM-3221/N	630/45		32.21~33.72	2544	6.1	white
UAM-3373/N	630/55, 630/80		33.73~35.31	2544	6.3	yellow

Helical Splicing Fittings

I. Type

Line Splice (LP)
Full Tension Line Splice for ACSR (FTLP)
Line Splice for Jumping wire (JLP)
Line Splice (T type)(TLP)
Line Splice for Earth wire/ Stay wire (ELP/YLP)
Line Splice for Al-Clad Steel Strand
Strengthen Line Splice (SLP)

II. Character

1) Strength: The LP can resume the original mechanical strength of the conductor wire and earth wire.

2) Excellent in electric corrosion proof: The rods of LP are the same material as the line (earth wire), which will insure the excellent character of electric corrosion proof.

3) Electric Character To enhance its electric ability electric grit have been blasted in the inside of the LP which will insure the transferring capability of the conductor are not eff ected after the mending.

4) Easy Installation : The installation can be finished in live working condition avoid the power cutting of the line during the repairing

I. Components (Fig. F1)

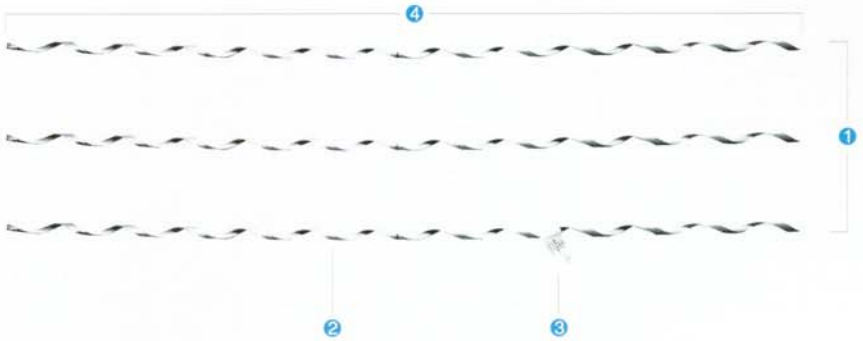


Fig.F1

1. Suit Rods: Consists of 2-4sets of rods, grit blasted on the inner side
2. Marks: Distinguish the specification, locate the center of installation
3. Label: Show the catalogue number and dimension etc
4. Length: See tables for details

II. Usage

LP used for the splicing on the transmission &distribution lines with the voltage lower than 330kV

III. Characters

1) The LP can resume 100% of the original mechanical strength of the line
2) The LP insure to recover 100% of the transferring capability of the conductor line
3) Light weight and anti – vibration fatigue

IV. Notes

1) The FTLP is recommended for the broken of the steel core of ACSR, for the LP can not resume the strength of th steel corn.
2) Clean and grease the conductor before installation please get rid of the oxidation and assure the transferring capability after mending.
3) The LP can not be used again after installation.

Installation illustration

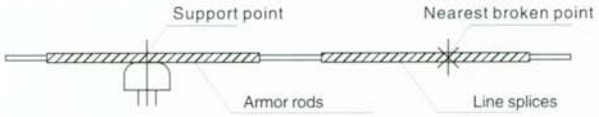


Fig.F2

V. Catalogue lists

Table F1 Helical Line Splices for ACSR/AAAC

Catalog No.	Suitable Conductor		Conductor Dia. (mm)	Length (mm)	Weigth (kg)	Color Code
	ACSR	AAAC				
LP-0450/N	10/2		4.50~4.66	532	0.05	purple
LP-0492/N		16	4.92~5.15	560	0.05	blue
LP-0540/N	16/3		5.40~5.59	582	0.05	green
LP-0628/N		25	6.28~6.55	662	0.08	orange
LP-0688/N	25/4		6.88~7 11	690	0.11	yellow
LP-0738/N	35/6	35	7.38~8.29	793	0.15	red
LP-0890/N		50	8.90~9.30	865	0.18	green
LP-0932/N	50/8		9.32~9.69	972	0.25	black
LP-1056/N		70	10.56~10.84	1022	0.25	brown
LP-1129/N	50/30,70/10		11.29~11.77	1072	0.34	blue
LP-1222/N		95	12.22~12.76	1168	0.42	orange
LP-1329/N	95/15,70/40		13.29~13.82	1305	0.60	black
LP-1383/N	95/20	120	13.83~14.39	1320	0.60	red
LP-1440/N	120/7 120/20		14.40~15.05	1550	0.87	blue
LP-1570/N	120/25,95/55,150/8	150	15.70~16.33	1705	1.05	yellow
LP-1634/N	150/20		16.34~17.02	1750	1.20	brown
LP-1703/N	150/25,150/35	185	17.03~17.76	1780	1.24	orange
LP-1777/N	120/70,185/10		17.77~18.50	1962	1.89	green
LP-1851/N	185/25,185/30,210/10	210	18.51~19.28	2008	1.94	black
LP-1929/N	185/40,210/25	240	19.29~20.14	2110	2.16	purple
LP-2015/N	210/35,210/50		20.15~20.96	2130	2.18	red
LP-2097/N	240/30		20.97~21.61	2182	2.02	blue
LP-2162/N	240/40,240/55	300	21.62~22.51	2515	2.79	orange
LP-2252/N	300/15,300/20		22.52~23.60	2672	3.80	purple
LP-2361/N	300/25,300/40,300/50		23.61~24.59	2740	4.22	green
LP-2460/N	300/70		24.60~25.58	2825	4.42	yellow
LP-2559/N	400/25	400	25.59~26.69	3077	4.81	green
LP-2668/N	400/35,400/50		26.68~27.73	3232	5.42	black
LP-2774/N	400/65	500	27.74~28.85	3484	7.41	purple
LP-2888/N	400/95,500,35,500/45		28.88~30.09	3585	7.77	red
LP-3010/N	500/65		30.10~34.37	3632	7.85	blue

Note: 1. The listed products are used for the ACSR with broken of AAC≥50%, but no breaks in steel core part.
2.The listed products are used for the AAC with broken≥50%.
3.Connect with our company for the no mentioned ones.

Helical Line Splice for Jumping Wire (**JLP**)

Table F2 Helical Line Splices for ACSR/AAAC Jumping Wire

Catalog No.	Suitable Conductor		Conductor Dia. (mm)	Length (mm)	Weigth (kg)	Color Code
	ACSR	AAAC				
JLP-0450/N	10/2		4.50~4.66	532	0.05	purple
JLP-0492/N		16	4.92~5.15	560	0.05	blue
JLP-0540/N	16/3		5.40~5.59	582	0.05	green
JLP-0628/N		25	6.28~6.55	662	0.08	orange
JLP-0688/N	25/4		6.88~7 11	690	0.11	yellow
JLP-0738/N	35/6	35	7.38~8.29	793	0.15	red
JLP-0890/N		50	8.90~9.30	865	0.18	green
JLP-0932/N	50/8		9.32~9.69	972	0.25	black
JLP-1056/N		70	10.56~10.84	1022	0.25	brown
JLP-1129/N	50/30,70/10		11.29~11.77	1072	0.34	blue
JLP-1222/N		95	12.22~12.76	1168	0.42	orange
JLP-1329/N	95/15,70/40		13.29~13.82	1305	0.60	black
JLP-1383/N	95/20	120	13.83~14.39	1320	0.06	red
JLP-1440/N	120/7 120/20		14.40~15.05	1550	0.87	blue
JLP-1570/N	120/25,95/55,150/8	150	15.70~16.33	1705	1.05	yellow
JLP-1634/N	150/20		16.34~17.02	1750	1.20	brown
JLP-1703/N	150/25,150/35	185	17.03~17.76	1780	1.24	orange
JLP-1777/N	120/70,185/10		17.77~18.50	1962	1.89	green
JLP-1851/N	185/25,185/30,210/10	210	18.51~19.28	2008	1.94	black
JLP-1929/N	185/40,210/25	240	19.29~20.14	2110	2.16	purple
JLP-2015/N	210/35,210/50		20.15~20.96	2130	2.18	red
JLP-2097/N	240/30		20.97~21.61	2182	2.02	blue
JLP-2162/N	240/40,240/55	300	21.62~22.51	2515	2.79	orange
JLP-2252/N	300/15,300/20		22.52~23.60	2672	3.80	pueple
JLP-2361/N	300/25,300/40,300/50		23.61~24.59	2740	4.22	green
JLP-2460/N	300/70		24.60~25.58	2825	4.42	yellow
JLP-2559/N	400/25	400	25.59~26.69	3077	4.81	green
JLP-2668/N	400/35,400/50		26.68~27.73	3232	5.42	black
JLP-2774/N	400/65	500	27.74~28.85	3484	7.41	purple
JLP-2888/N	400/95,500,35,500/45		28.88~30.09	3585	7.77	red
JLP-3010/N	500/65		30.10~34.37	3632	7.85	blue

Helical Strengthen Line Splice (**SLP**)

Table F3 Helical Strengthen Line Splices for ACSR/AAAC

Catalog No.	Suitable Conductor			Conductor Dia. (mm)	Max. Length of Sleeve(mm)	Length (mm)	Weigth (kg)	Color Code
	ACSR	AAAC	Splicing Sleeve					
SLP-1222/N		95	JT-95L	12.22~12.76	280	1480	0.5	orange
SLP-1329/N	95/15			13.29~13.82	690	2020	0.9	black
SLP-1383/N	95/20	120	JT-120L	13.83~14.39	690	2050	0.9	red
SLP-1440/N	120/20			14.40~15.05	430	2010	1 1	blue
SLP-1570/N	120/25	150	JT/JY-150L	15.70~16.33	490	2070	1.2	yellow
SLP-1634/N	150/20			16.34~17.02	470	2260	1.5	brown
SLP-1703/N	150/25,150/35	185	JT/JY-185L	17.03~17.76	530	2230	1.5	orange
SLP-1851/N	185/25,185/30	210	JY-210L	18.51~19.28	540	2520	2.3	black
SLP-1929/N	185/40,210/25	240	JY-240L	19.29~20.14	570	2560	2.6	pueple
SLP-2015/N	210/35,210/50			20.15~20.96	600	2770	2.8	red
SLP-2097/N	240/30			20.97~21.61	570	2840	2.7	blue
SLP-2162/N	240/40,240/55	300	JY-300L	21.62~22.51	640	3090	3.4	orange
SLP-2252/N	300/15,300/20			22.52~23.60	580	3190	4.5	purple
SLP-2361/N	300/25,300/40,300/50			23.61~24.59	600	3420	5.2	green
SLP-2460/N	300/70			24.60~25.58	720	3580	5.6	yellow
SLP-2559/N	400/25	400	JY-400L	25.59~26.69	660	3780	5.9	green
SLP-2668/N	400/35,400/50			26.68~27.73	730	4000	6.7	black
SLP-2774/N	400/65			27.74~28.85	760	4290	9.2	purple
SLP-2888/N	400/95,500,35,500/45	500	JY-500L	28.88~30.09	830	4470	9.7	red

Full Tension Line Splice (**FTLP**)

I. Components (Fig. F3)

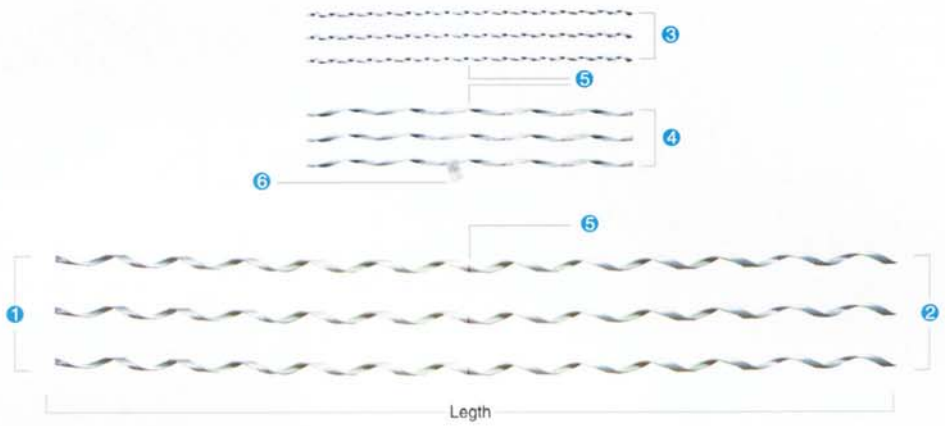


Fig.F3

Suit: bind the single rod to suits grit blasted on the inner side
Out Layer Rod: Al. Alloy, suited and grit blasted
Inner layer Rod: Galvanized Steel Wire, Suited and grit blasted
Fill in Rods: Al. Alloy no grit blasted
Central, Color Marks: the installation datum line, distinguish the specification
Label: Show the catalogue number and diameter of the conductor etc.

II. Usage

As the substitution of the compression mid span joint
The FTLP used to splice and repair the
ACSR line with the voltage lower than 330kV

III. Characters

1) No effect to the UTS of the lines after mending.
2) The conductive capability of the lines can be resumed 100% after mending.
3) The FTLP consists of three layers: Inner Rod Fill in Rod and Outside Rod the Inner Rods are used to splice the steel core; Fill in Rods to recover the ACSR diameter while the Outside Rod as the compensation for the AAC layer which have to be cut during the splicing.
4) Easy Installation
   No specific tools required, the installation can be finished bare-handed by one person, easy and quick.
5) Adopt the LP with the same material as the conductor so No electrochemical reaction between them.

IV. Installation Information

1) Before Installation, the surface of the conductor line should be scratched to be smooth and clean, grease are needed too please.
2) Fit the central point of the FTLP to the broken point of the conductor and after installation the FTLP should be at least 152mm away from the end of the Armor Rods.
3) Please check the outside diameter of the repairing point after the installation, which should be the dia. Of the conductor plus double thickness .of the repairing rods.
4) The FT LP can not be re-used again after the original Installation.

V. Catalogue lists

Table F4 Helical Full Tension Line Splices for ACSR

Catalog No.	Suitable Conductor	Conductor Dia. (mm)	Lenght(mm) Inner Rods/Filling Rods/Outer Rods	Weight(kg) Inner Rods/Filling Rods/Outer Rods	Color Code
FTLP-1010/R	50/8 6/1	3.00/none/3.10	508/1372	0.20/0.30	purple
FTLP-1013/R	70/10 6/1	1.80/1.80/4.20	406/406/1499	0.10/0.10/0.60	blue
FTLP-1015/R	70/40 12/7	2.54/none/5.20	740/2240	0.37/1.45	brown
FTLP-1016/R	95/15 26/7	2.20/2.20/4.20	508/508/1905	0.10/0.10/0.90	green
FTLP-1019/R	95/20 7/7	1.80/2.40/4.20	508/508/1727	0.10/0.10/0.80	orange
FTLP-1022/R	95 28/7	1.80/2.40/4.20	737/737/1880	0.10/0.10/0.80	yellow
FTLP-1025/R	120/20 26/7	1.80/3.10/4.60	508/508/2057	0.10/0.10/1 10	red
FTLP-1028/R	120 28/7	2.20/2.40/4.60	610/610/2210	0.20/0.10/1.20	green
FTLP-1031/R	150 28/7	2.20/3.10/5.20	635/635/2387	0.20/0.20/1.60	black
FTLP-1034/R	150/20 24/7	1.80/3.70/5.20	508/508/2261	0.10/0.10/1.50	brown
FTLP-1037/R	150/25 26/7	2.20/3.10/5.20	635/635/2413	0.20/0.10/1.60	blue
FTLP-1040/R	150/35 30/7	2.50/2.40/5.20	686/686/2465	0.30/0.10/1.60	orange
FTLP-1043/R	185/30 26/7	2.20/3.70/6.40	660/660/2667	0.20/0.20/2.40	black
FTLP-1046R	185/25 18/7	2.20/4.20/6.40	635/635/2642	0.20/0.20/2.40	red
FTLP-1049/R	185 18/7	2.50/3.10/6.40	686/686/2692	0.30/0.20/2.50	blue
FTLP-1052/R	210/25 24/7	2.20/4.60/6.40	635/635/2743	0.20/0.30/2.80	yellow
FTLP-1055/R	240 28/7	3.00/3.50/7.90	787/787/3226	0.50/0.30/4.50	brown
FTLP-1058/R	240/30 24/7	2.50/4.60/7.00	686/686/3073	0.30/0.30/3.70	orange
FTLP-1062/R	240/40 26/7	2.54/4.20/6.40	737/737/3073	0.30/0.30/3.40	green
FTLP-1065/R	240 24/7	2.50/4.60/7.00	658/658/3124	0.30/0.30/3.80	black
FTLP-1068/R	300(1) 24/7	2.50/5.20/7.90	711/711/3404	0.30/0.40/5.20	purple
FTLP-1071/R	300/25 48/7	2.20/6.40/7.90	635/635/3759	0.20/0.40/5.80	red
FTLP-1074/R	300/40 24/7	2.50/5.20/7.90	737/737/3429	0.30/0.40/5.30	blue
FTLP-1077/R	300 28/19	3.00/4.60/7.90	1041/1041/3657	0.70/0.60/5.70	orange
FTLP-1080/R	400/25 45/7	2.20/7.90/9.30	635/635/4013	0.20/0.50/7.90	purple
FTLP-1083R	400/35 48/7	2.50/7.00/9.3	686/686/4242	0.30/0.50/8.00	green
FTLP-1086/R	400/50 54/7	2.50/6.40/9.30	787/787/4343	0.40/0.60/8.20	yellow
FTLP-1089/R	400 28/19	3.00/5.20/9.30	1168/1168/4216	0.80/0.80/8.20	green
FTLP-1092/R	500/45 48/7	3.00/7.90/11 10	787/787/4445	0.50/0.80/11.20	black
FTLP-1095/R	500/35 45/7	2.50/8.50/11 10	686/686/4445	0.30/0.70/11.20	purple
FTLP-1098/R	500/65 54/7	3.00/7.00/11 10	889/889/4724	0.60/0.90/13.20	red

T- Line Splice (**TLP**)

I. Component (Fig. F4)

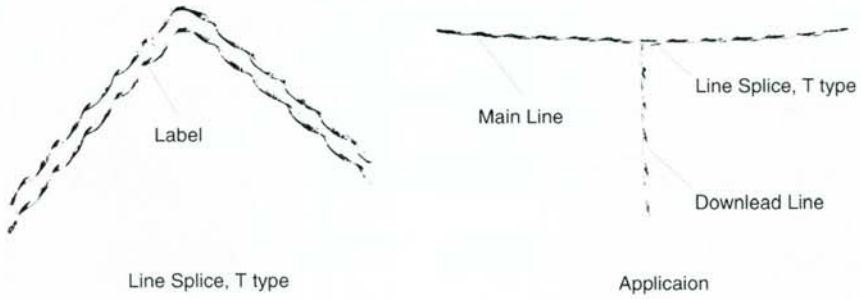


Fig. F4

II. Usage

To fix the "T" connected conductor to the bus bar vertically

III. Character

1) The grip strength of the TLP is not less than 25% of the UTS of the branch conductor.
2) The electric conductivity of the TLP can reach the 100% of the branch conductor
3) No bolts, nuts and washers or other connect fittings needed, convenient for transportation.
4) Easy Installation,no specific tools required, the installation can be finished bare-handed, with consistent quality and No hurt to the conductor

IV. Notes

1) According to the parameters of the conductor (construction, cut section, outside dia. and UTS) Choose the corresponding Catalogue No. in tables.
2) The standard lay direction of the TLP is right-hand. Please mention when your ordering is left-hand.
3) Before Installation, the surface of the conductor line should be scratched to be smooth and clean, grease are needed too please

V. Catalogue lists

Table F5 Helical Line Splices for ACSR (T type)

Catalog No.	Suitable Conductor		Conductor Dia. (mm)	Length (mm)	Weigth (kg)	Color Code
	ACSR	AAAC				
TLP-0739/N		35	7.39~7.58	582	0.1	purple
TLP-0793/N	35/6		7.93~8.29	582	0.1	red
TLP-0891/N		50	8.91~9.30	660	0.1	green
TLP-0936/N	50/8		9.36~9.69	694	0.2	black
TLP-1056/N		70	10.56~10.84	763	0.2	brown
TLP-1129/N	70/10, 50/30		11.29~11.77	810	0.3	blue
TLP-1222/N		95	12.22~12.76	814	0.4	green
TLP-1329/N	70/40, 95/15		13.29~13.82	971	0.5	orange
TLP-1383/N	95/20	120	13.83~14.39	990	0.5	red
TLP-1440/N	120/7 120/20		14.40~15.05	1072	0.7	blue
TLP-1570/N	95/55, 120/25, 150/8	150	15.70~16.33	1142	0.9	yellow
TLP-1634/N	150/20, 150/20		16.34~17.02	1404	1.2	brown
TLP-1703/N	150/25, 150/35	185	17.03~17.76	1472	1.3	orange
TLP-1777/N	185/10		17.77~18.50	1522	1.4	green
TLP-1851/N	185/25, 185/30,210/10	210	18.51~19.28	1555	1.5	black
TLP-1929/N	185/40, 210/25	240	19.29~20.14	1633	1.7	purple
TLP-2015/N	210/35, 210/50		20.15~20.96	1700	1.9	red
TLP-2148/N	240/30, 240/40, 240/55	300	21.48~23.04	1854	2.6	orange
TLP-2358/N	300/25		23.58~24.56	2035	3.8	brown
TLP-2668/N	400/20		26.68~27.70	2388	5.7	black

Helical Line Splice for Earth Wire (**ELP**) & Stay Wire (**YLP**)

I. Component (Fig.F5)

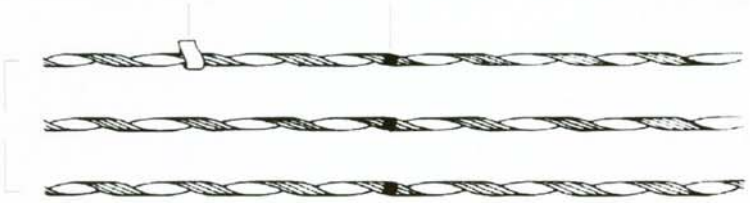


Fig.F5

Suit: Bind the single rod to suits grit blasted on the inner side
Label: Show the catalogue number and diameter of the conductor etc.
Central Mark The installation datum line.

II. Usage

The ELP/YLP used to splice and repair the overhead earth wire and stay wire.

III. Material

Be the same as the earth wire and stay wire.

IV. Character

Supply 100% UTS of the earth wire and stay wire applied to repair

V. Notes

1) Before Installation, the surface of the conductor line should be cleaned
2) Please keep the same lay direction of the ELP/YLP with the
3) The ELP/YLP can not be re-used again after the original installation

Table F6 Helical Line Splices for Steel Strand Earth Wire

Catalog No.	Wire Dia.(mm)	Wire Section(mm)	Length(mm)	Weigth(kg)	Color Code
ELP-0660/S	6.60	25	1040	0.33	yellow
ELP-0765/S	7.65~7.95	35	1220	0.51	black
ELP-0895/S	8.95~9.30	50	1390	0.70	orange
ELP-1082/S	10.82~11 10	70	1650	1.46	green

Table F7 Helical Line Splices for Steel Strand Guy Wire

Catalog No.	Wire Dia.(mm)	Wire Section(mm)	Length(mm)	Weigth(kg)	Color Code
YLP-0660/S	6.60	25	910	0.3	yellow
YLP-0765/S	7.65~7.95	35	1070	0.4	black
YLP-0895/S	8.95~9.30	50	1220	0.6	orange
YLP-1082/S	10.82~11 10	70	1450	1.3	green

Helical Line Splice (**LP**) (used for Al.clad Steel Strand)

Table F8 Helical Line Splices for Al. Clad Steel Strands

Catalog No.	Conductor Dia.(mm)	Length(mm)	Weigth(kg)	Color Code
LP-0441/L	4.41~4.60	482	0.1	orange
LP-0556/L	5.56~5.86	612	0.2	green
LP-0587/L	5.87~6.00	635	0.2	orange
LP-0601/L	6.01~6.28	637	0.2	yellow
LP-0629/L	6.29~6.56	660	0.2	black
LP-0657/L	6.57~6.86	687	0.2	red
LP-0687/L	6.87~7 12	711	0.2	blue
LP-0713/L	7 13~7.39	735	0.3	green
LP-0740/L	7.40~7.67	735	0.3	yellow
LP-0768/L	7.68~7.95	760	0.3	black
LP-0796/L	7.96~8.22	786	0.3	red
LP-0823/L	8.23~8.54	785	0.3	green
LP-0855/L	8.55~8.88	842	0.4	yellow
LP-0887/L	8.87~9.23	915	0.5	blue
LP-0924/L	9.24~9.62	942	0.6	red
LP-0963/L	9.63~10.01	966	0.6	green
LP-1002/L	10.02~10.40	1020	0.8	yellow
LP-1041/L	10.41~10.82	1042	0.8	black
LP-1083/L	10.83~11.22	1271	0.9	green
LP-1124/L	11.24~11.65	1346	1.3	yellow
LP-1166/L	11.66~12.04	1373	1.3	red
LP-1205/L	12.05~12.56	1400	1.3	blue
LP-1257/L	12.57~13.08	1452	1.4	green

Spiral Vibration Damper (**DFL**)

I. Component (Fig. G1)

Fig. G1

1. Length
2. Grip Section: To hold the conductor
3. Vibration Damping Section: Create the opposite vibration of the conductor to damping

II. Usage

To be installed to the conductor or earth wire to reduce the aeolian vibration.

IV. Charactera

1) Low abrasion: No abrasion to the conductor or earth wire.
2) Anti- corrosive: Made of PVC with the good character of corrosion proof
3) Easy Installation:No specific tools required, the installation can be finished bare-handed by one person, easy and quick.

V. Notes

The fix point of the grip section should be at least 15cm away form other hardware fittings.

Table G1 Recommended Mounting Number

Span(m)	0~244	245~490	491~732
Number	2	4	6

VI. Catalogue lists

Table G2 Spiral Vibration Damper

Catalog No.	Conductor Dia. (mm)	Length of Griping (mm)	Length (mm)	Weigth (kg)
DFL-10	φ9.1-11.0	300	1350	0.32
DFL-12	φ11 1-13.0	300	1350	0.34
DFL-14	φ13.1-15.0	300	1500	0.49
DFL-16	φ15.1-17.0	300	1500	0.56
DFL-18	φ17 1-19.0	300	1700	0.64
DFL-20	φ19.1-21.0	300	1700	0.64

Spiral Galloping Damper (**SGD**)

I. Components (Fig.G2)

Fig. G2

1. Grip Section: To hold the conductor
2. Support Section: To prevent the part 4 from galloping and wind sway
3. Pitch
4. Galloping Damping Section: It's about 2-3 pitches long, to reduce the galloping and wind sway by changing the surrounding aerial movement of the cables.

II. Usage

Reduce the surrounding wind sway of the cables, to prevent the galloping.

III. Catalogue lists

Table G3 Spiral Galloping Damper

Catalog No.	Conductor Dia.(mm)	Length(mm)	Weigth(kg)	Color Code
SGD-0635	6.35~8.28	4.1	0.5	red
SGD-0829	8.29~11.71	4.1	0.5	white
SGD-1172	11.72~14.30	4.3	1.0	orange
SGD-1431	14.31~19.30	4.4	1 1	yellow
SGD-1931	19.31~23.52	4.6	1.9	blue
SGD-2353	23.53~25.88	4.6	2.0	black
SGD-2589	25.89~29.59	4.8	2.5	purple
SGD-2960	29.60~37.31	4.9	2.6	brown
SGD-3732	37.32~40.69	5.2	4.3	green
SGD-4070	40.70~44.75	5.3	4.4	pink

Vibration Damper (**4D**)

I. Component (Fig.G3)

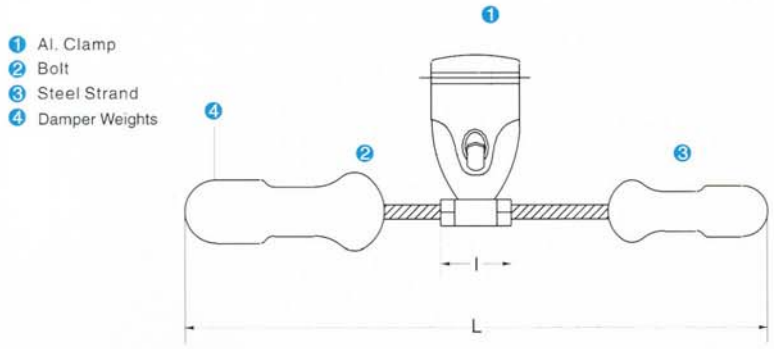


Fig.G3

II. Usage

Used to eliminate or reduce the vibration during the running of the lines caused by various elements, to protect the lines and hardware fittings

IV. Character

With four resonance frequencies it can supply a wide protection range from 6Hz ~ 150Hz V Table

III. Catalogue lists

Table G4 Vibration Damper

Catalog No.	Len.of Al.clamp (mm)	Griping Range (mm)	Total Lengh L (mm)	Clamp Length l (mm)	Clamp Height (mm)	Condoctor Dia (mm)	Weight (mm)
4D-40	34.0	34.0~29.5	542	66	94	11	4.7
	30. 5	30.5~27.0			96		
	27 6	27.6~24.5			98		
4D-30	27.0	27.0~22.5	383	52	70	9	2.5
	23. 4	23.4~19.5			72		
	20. 3	20.3~16.5			73		
4D-20	18.0	18.0~15.0	330	52	65	7.5	1.4
	16.0	16.0~13.3			63		
	14. 0	14.0~12.2			62		

Remark: For 4D-20, the suitable Al Clamps including: 27.0,23.4,20.3,18.0,16.0,14.0
For 4D-30, the suitable Al. Clamps including: 34.0,30.5,27.6,27.0,23.4,20.3,18.0,16.0,14.0
For 4D-40, the suitable AL. Clamps including:34.0,30.5,27.6,27.0,23.4,20.3

Name: CECEC Nanjing Electric Co., Ltd.
Add: D-Wing, 12/F Riyue Mansion No.2 Tai Ping Nan Lu,
Nanjing 210002, P.R. China
Tel:+86-25-8467 9735, 8467 9327
Fax:+86-25-8467 9736
Email: _____@transmission-line.cn
Website:www.transmission-line.cn