



CG Solution

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CATALOGUE SUBSTATION SYSTEM

THINGS GO BETTER WITH ENERGY!

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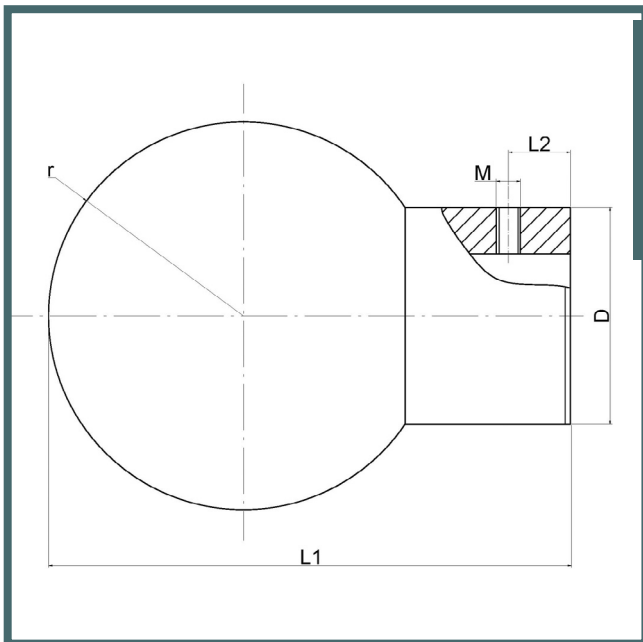
Bus-bar Support



Tubular bus-bar supports are used to fix the tubular bus-bar on the post insulator or on the post insulator with bracket. The tubular bus-bar supports shall meet the installation requirements of tight or loose(slidable) fixation of tubular bus-bar in the fixing fittings

Products

END-BALLS FOR TUBULAR BUS-BAR



End-balls for Tubular Bus-bar are mainly installed at the terminals on both sides of the bus bar to reduce the corona at both ends of the bus bar.

Technical features:

1. The diameter of end-balls for tubular bus-bar are bigger than diameter for tubular bus bar;
2. It has low radio interference and high critical corona voltage;
3. The arrangement of end cap of the tubular bus-bar is clear and beautiful, and the operation and maintenance are convenient.

Product advantages:

1. The surface is polished, smooth without burrs;
2. The end-balls are made of cast aluminium alloy;
3. It has a convenient installation.

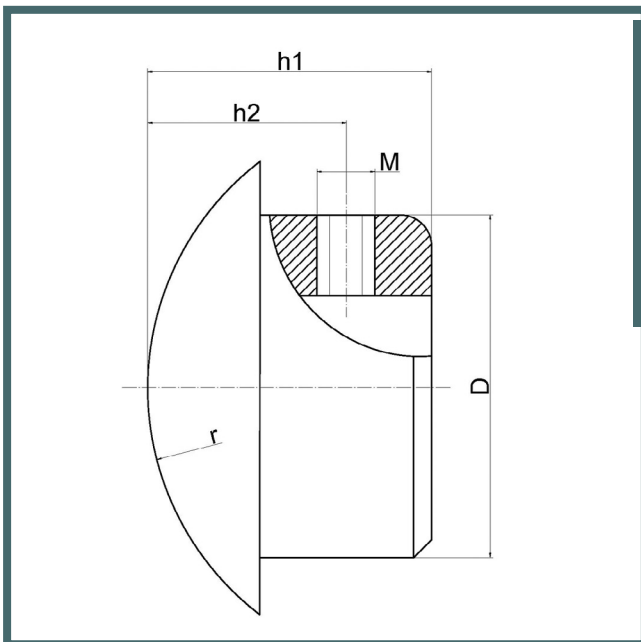
Catalog No.	Suitable Bus-bar(mm)	Dimensions (mm)				
		D	M	r	L1	L2
MGZ-70	70	64	8	69	145	20
MGZ-80	80	74	8	70	164	20
MGZ-90	90	80	8	80	184	20
MGZ-100	100	90	10	80	214	25
MGZ-120	120	112	10	90	205	25
MGZ-130	130	116	10	90	205	25
MGZ-150	150	136	10	150	340	25
MGZ-170	170	156	10	170	360	30
MGZ-200	200	180	12	200	380	40



Catalog No.	Suitable Bus-bar(mm)	Dimensions (mm)				
		D	M	r	L1	L2
MGZ-250	250	230	12	250	400	40

Remark: *D,*M,*r,*h1*h2, please refer to related product drawings.

END-CAPS FOR TUBULAR BUS-BAR



End-caps for the tubular bus bar is sealed with a semicircular head. End-caps for the tubular bus-bar is generally installed at the ends of two aluminum tubes at the flexible stud connector to reduce corona at both ends of the bus bar.

Technical features:

1. The semicircle diameter of end-caps for tubular bus-bar are bigger than diameter for tubular bus-bar;
2. It has low radio interference and high critical corona voltage;
3. The arrangement of end cap of the tubular bus-bar is clear and beautiful, and the operation and maintenance are convenient.

Product advantages:

1. The surface is polished, smooth without burrs;
2. End-caps for Tubular Bus-bar made of cast aluminium alloy;
3. It has a convenient installation.

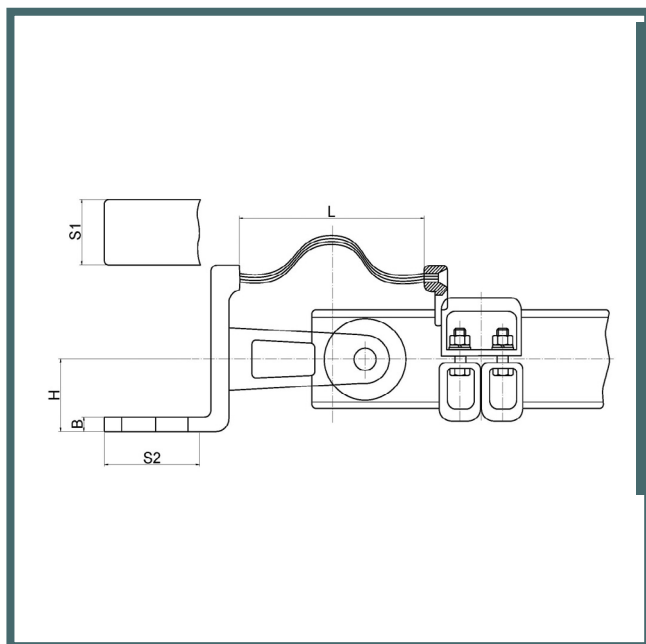
Catalog No.	Suitable Bus-bar (mm)	Dimensions (mm)				
		D	M	r	L1	L2
MGF-70	70	64	8	70	42	30
MGF-80	80	74	8	70	50	35



Catalog No.	Suitable Bus-bar (mm)	Dimensions (mm)				
		D	M	r	L1	L2
MGF-90	90	80	8	80	55	35
MGF-100	100	90	8	90	60	40
MGF-110	110	99	10	110	46	30
MGF-120	120	112	10	120	65	40
MGF-130	130	116	10	120	65	40
MGF-150	150	136	10	150	70	40
MGF-170	170	156	10	160	80	50
MGF-200	200	179	10	200	80	55
MGF-250	250	229	10	250	90	60

Remark: *D,*M,*r,*h1*h2, please refer to related product drawings.

SUPPORT TYPE SINGLE FLEXIBLE TERMINAL CONNECTORS FOR TUBULAR BUS-BAR



When the equipment is connected by bus-bar, the fitting used to connect the hard bus bar and the equipment terminal is called flexible clamp for tubular bus-bar. Thus, the flexible clamp for the tubular bus bar acts as an expansion joint. It is mainly to prevent the post insulator from breaking due to the expansion stress caused by the temperature change of hard bus-bar.

Technical features:

1. The flexible clamps for tubular bus-bar needs to withstand a certain vertical and horizontal force. The force of the fixed fittings depends on the weight of the unit length of the hard bus-bar. And the short-circuit electromotive force in the same span and season;
2. The flexible clamps for tubular bus-bar must have sufficient expansion and contraction amount. And the amount of expansion and contraction depends on the length and temperature range of the hard bus-bar;
3. The flexible clamps for tubular bus-bar also has the function of conducting electricity. And the current capacity should be consistent with the current capacity of the hard bus-bar.

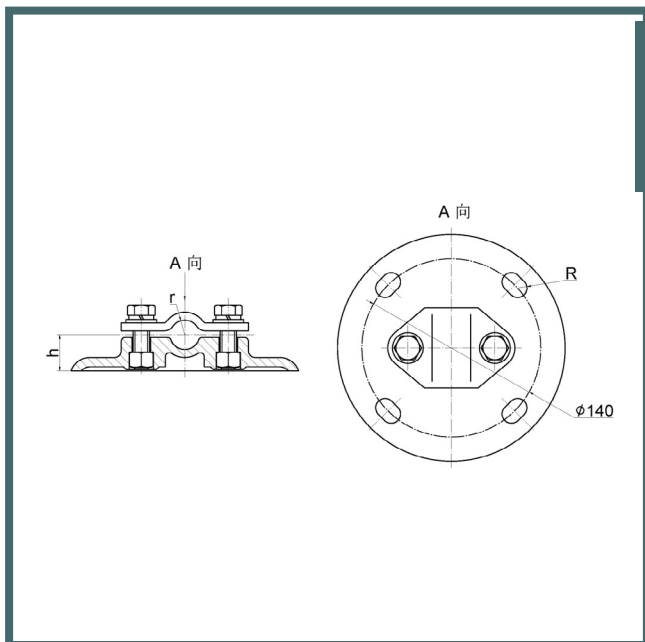
Product advantages:

1. The surface is polished, smooth without burrs;
2. Support type single flexible terminal connectors for tubular bus-bar made of cast aluminium alloy;
3. It has good electrical contact performance reduce.
4. It has stable structure and convenient installation.

Catalog No.	Suitable Bus-bar (mm)	Dimensions (mm)				
		L	S1	S2	B	H
MGZ-90	Φ90/80	340	80	105	18	50
MGZ-100	Φ100/90	340	125	135	20	50
MGZ-100A	Φ100/90	360	100	105	20	70
MGZ-110	Φ110/100	360	125	130	20	70
MGZ-120	Φ120/112	360	130	150	22	90
MGZ-130	Φ130/116	360	150	150	22	100
MGZ-150	Φ150/136	380	150	150	22	100

Remark: *L,*S1,*S2,*B*H, please refer to related product drawings.

SUPPORTS FOR FLEXIBLE BUS-BAR



Supports for flexible bus-bar clamps the flexible bus-bar to fix it on the post insulator.

Technical features:

1. It has a simple structure;
2. It has stable performance and a good heat dissipation effect.

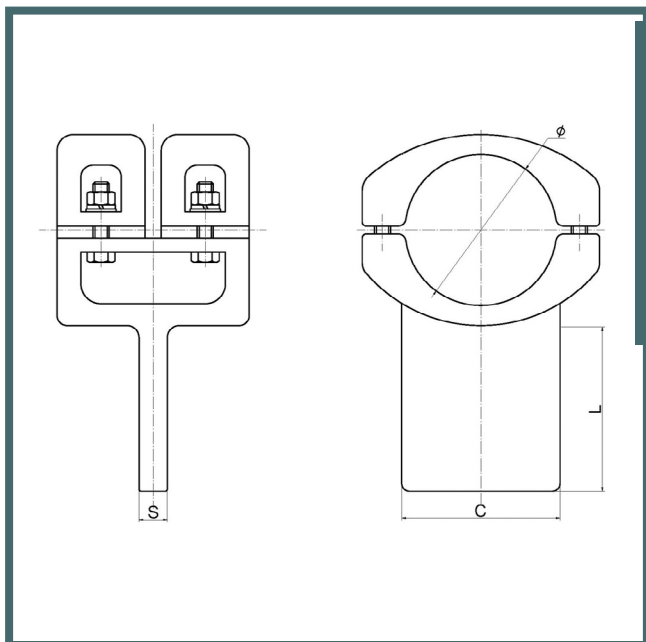
Product advantages:

1. The surface is polished, smooth without burrs;
2. The supports for flexible bus-bar made of aluminium alloy;
3. It can eliminate hysteresis loss and corona loss;
4. Light weight, reducing the load of the bus-bar.

Catalog No.	Suitable Diameter (mm)	Dimensions (mm)	
		r	h
MDG-4	19.02~21.28	11	30
MDG-5	23.7~27.36	14	33
MDG-6	30.16~33.2	17	36

Remark: *r,*h, please refer to related product drawings.

T-CONNECTORS FOR TUBULAR BUS-BAR



Tubular bus-bar T connectors are used for the T-connection from tubular bus-bar to electrical equipment. The download is a flat contact terminal, which can be connected to the compression terminal or the bolted type terminal.

Technical features:

1. T-connectors for tubular bus-bar have large carrying capacity and low power loss;
2. With good heat dissipation conditions and low temperature rise;
3. Can withstand large short-circuit current

and has high mechanical strength, strong earthquake resistance;

4. Has low radio interference and high critical corona voltage;
5. It is anti environmental, safe and reliable, convenient operation and maintenance.

Product advantages:

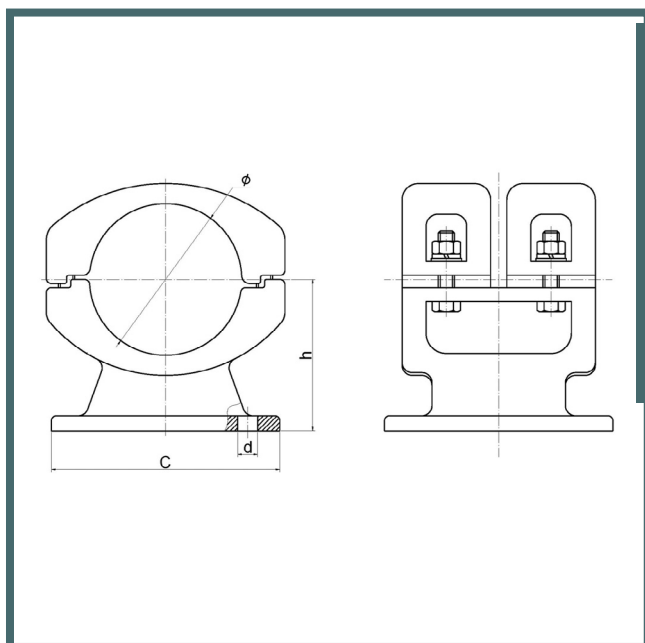
1. The surface is polished, smooth without burrs;
2. The T-Connectors for tubular bus-bar made of cast aluminium alloy;
3. It has good electrical contact performance reduce.
4. It has stable structure and convenient installation.

Catalog No.	Suitable Bus-bar (mm)	Dimensions (mm)			
		Φ	C	L	S
MGT-70A	70	70	800	85	16
MGT-80A	80	80	80	85	16
MGT-90A	90	90	100	105	18
MGT-100A	100	100	100	105	18
MGT-110A	110	110	100	105	18
MGT-120A	120	120	100	105	18

Catalog No.	Suitable Bus-bar (mm)	Dimensions (mm)			
		Φ	C	L	S
MGT-130A	130	130	125	125	18
MGT-150A	150	150	125	125	20
MGT-170A	170	170	150	155	22
MGT-200A	200	200	150	170	22
MGT-250A	250	250	150	170	24

Remark: * Φ ,*C,*L,*S, please refer to related product drawings.

TUBULAR BUS-BAR SUPPORT



Tubular bus-bar support is used to fix the tubular bus bar on the post insulator or on the post insulator with a bracket. The tubular bus-bar supports shall meet the installation requirements of tight or loose (slidable) fixation of tubular bus-bar in the fixing fittings.

Technical features:

1. The tubular bus-bar supports have large carrying capacity and low power loss;
2. With good heat dissipation conditions and low temperature rise;
3. Can withstand large short-circuit current and has high mechanical strength, strong earthquake resistance;
4. Has low radio interference and high critical corona voltage;
5. It is anti environmental, safe and reliable, convenient operation and maintenance.

**Product advantages:**

1. The surface is polished, smooth without burrs;
2. The tubular bus-bar support made of cast aluminium alloy;
3. It has good electrical contact performance reduce;
4. It has stable structure and convenient installation.

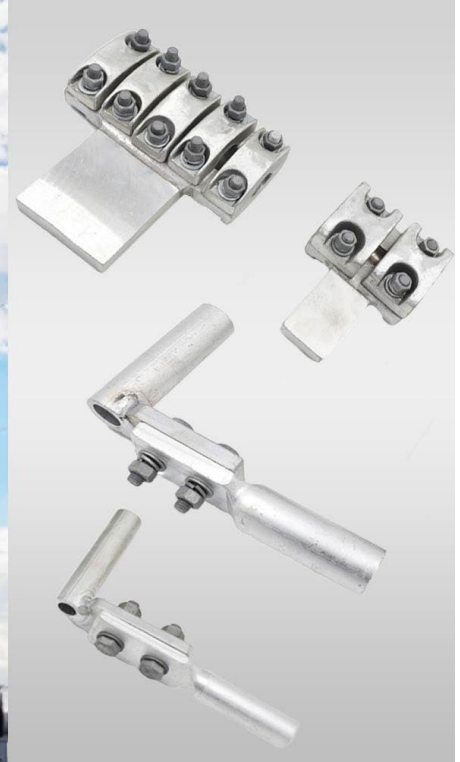
Catalog No.	Suitable Bus-bar (mm)	Dimensions (mm)			
		Φ	C	d	h
MGG-70	70	74	140	14	90
MGG-80	80	84	140	14	98
MGG-90	90	94	140	14	102
MGG-100	100	104	140	14	114
MGG-120	120	124	140	14	122
MGG-130	130	134	140	14	135
MGG-150	150	154	225	18	150
MGG-170	170	174	225	18	170
MGG-200	200	204	225	18	190
MGG-250	250	254	225	18	215

Remark: * Φ , *C, *d, *h, please refer to related product drawings.





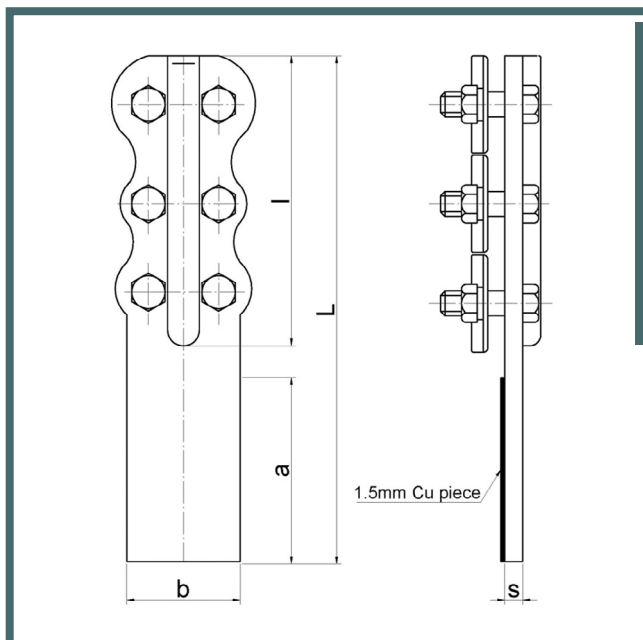
Substation Connectors



The terminal connector is used for the connection among bus-bar, down-lead and electrical equipment such as transformers, circuit breakers, transformers, isolating switches , etc.

Products

BOLTED TYPE AL-CU TERMINAL CONNECTOR



When the bolted type Al-Cu terminal clamp is used, the vertical pressure of the bolt causes friction between the keeper and the groove of the clamp to fix the conductor, which is convenient for installation and disassembly.

Technical features:

1. The resistance at both ends of the conductor joint of bolted type Al-Cu terminal connector shall not be greater than 1.1 times of resistance of an equivalent length of conductor;
2. The temperature rise at the conductor joint shall not be greater than temperature rise of conductor;
3. The current carrying capacity of T clamp shall not be less than the carrying capacity of the down lead;
4. The slip strength of bolted type terminal connector is not less than 10% RTS of conductor.

Product advantages:

1. Copper and aluminum welding seams are complete, without porosity and cracks. The surface is smooth and flat without burrs;
2. The connector made of aluminium alloy;
3. It has good electrical contact performance reduce.

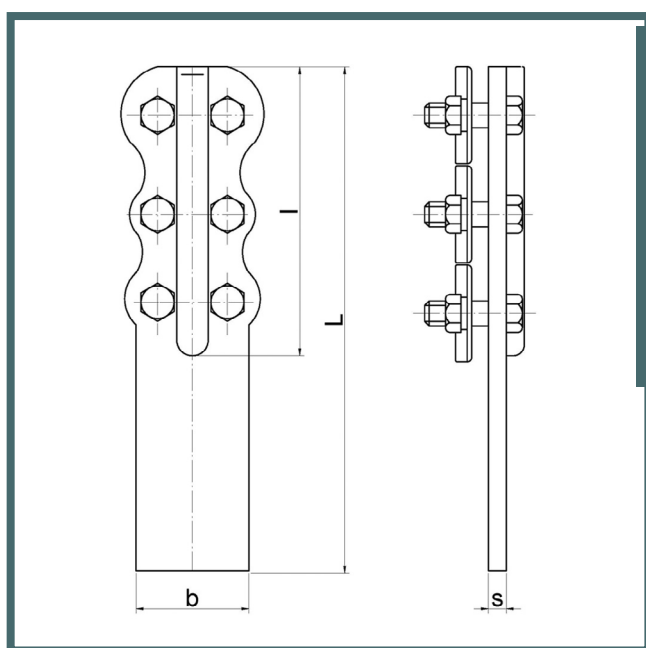
Catalog No.	Suitable Diameter (mm)	Number of Bolt	Dimensions (mm)				
			b	s	l	a	L
SLG-1A	7.5~9.6	4	40	6	65	65	145
SLG-2A	10.8~14.0	4	40	6	80	80	175



Catalog No.	Suitable Diameter (mm)	Number of Bolt	Dimensions (mm)				
			b	s	l	a	L
SLG-3A	14.5~17.5	6	50	6	125	85	225
SLG-4A	18.1~22.0	6	50	6	125	85	225

Remark: *b,*s,*l,*a,*L, please refer to related product drawings.

BOLTED TYPE TERMINAL CONNECTOR



When the bolted type terminal connector is used, the vertical pressure of the bolt causes friction between the keeper and the groove of the clamp to fix the conductor, which is convenient for installation and disassembly.

Technical features:

1. The resistance at both ends of the conductor joint of bolted type terminal connector shall not be greater than 1.1 times of resistance

of an equivalent length of conductor;

2. The temperature rise at the conductor joint shall not be greater than temperature rise of conductor;
3. The current carrying capacity of T clamp shall not be less than the carrying capacity of the down lead;
4. The slip strength of bolted type terminal connector is not less than 10% RTS of conductor.

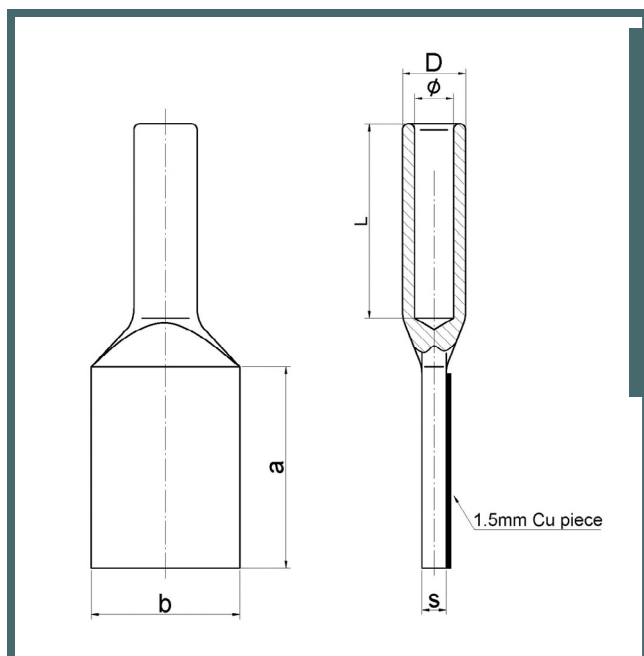
Product advantages:

1. The surface is smooth and flat without burrs;
2. The connector made of aluminium alloy;
3. It has good electrical contact performance reduce.

Catalog No.	Suitable diameter of Conductor (mm)	Number of Bolt	Dimensions (mm)			
			b	s	l	L
SL-1A	7.5~9.6	4	40	6	65	145
SL-2A	10.8~14.0	4	40	6	80	175
SL-3A	14.5~17.5	6	50	8	125	225
SL-4A	18.1~22.0	6	50	8	125	225

Remark: *b,*s,*l,*L,please refer to related product drawings.

COMPRESSION TYPE AL-CU TERMINAL CONNECTOR



The terminal connector is used for the connection among bus-bar, downlead, and electrical equipment(such as transformers, circuit breakers, transformers, isolating switches, etc.). The compression Al-Cu terminal connector adopts hydraulic construction.

Technical features:

1. The resistance at both ends of the conductor joint of compression type Al-Cu terminal connector shall not be greater than the resistance of an equivalent length of the conductor;
2. The temperature rise at the conductor's joint shall not be greater than the temperature rise of the conductor;
3. The current carrying capacity of the terminal connector shall not be less than the carrying capacity of the down lead;
4. The slip strength of the compression type Al-Cu terminal connector is not less than 10% RTS of the conductor.

Product advantages:

1. Copper and aluminum welding seams are complete, without porosity and cracks. The surface is smooth and flat without burrs;
2. The connector made of aluminium;
3. It has good electrical contact performance reduce;
4. It is suitable for permanent connection.

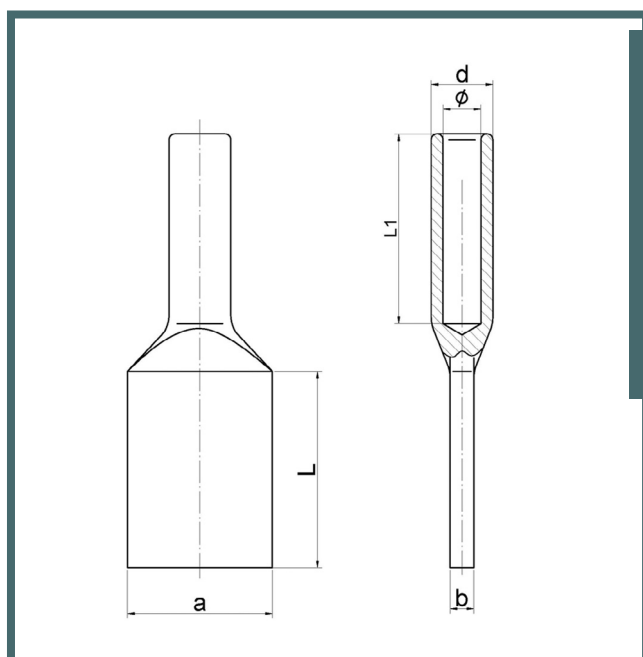
Catalog No.	Suitable Conductor		Dimensions (mm)					
	Catalog No.	Diameter (mm)	b	S	D	L	a	Φ
SYG-120/7A	120/7	14.5	50	10	26	80	85	16.0
SYG-150/8A	150/8	16.0	50	10	30	90	85	17.5
SYG-150/20A	150/20	16.67	50	10	30	90	85	18.0
SYG-185/10A	185/10	18.0	50	10	32	90	85	19.5
SYG-185/25	185/25	18.9	50	10	32	90	85	20.5
SYG-210/10A	210/10	19.0	50	10	34	100	85	20.5
SYG-210/25A	210/25	19.98	50	10	34	100	85	21.5
SYG-240/30A	240/30	21.6	50	12	36	100	85	23.0
SYG-300/15A	300/15	23.01	63	12	40	110	105	24.5
SYG-300/20A	300/20	23.43	63	12	40	110	105	25.0
SYG-300/25	300/25	23.76	63	12	40	110	105	25.5
SYG-300/40	300/40	23.94	63	12	40	110	105	25.5
SYG-400/20A	400/20	26.91	63	13	45	120	105	28.5
SYG-400/25A	400/25	26.64	63	13	45	120	105	28.5
SYG-400/35A	400/35	26.82	63	13	45	120	105	28.5
SYG-400/50A	400/50	27.63	63	13	45	120	105	29.5



Catalog No.	Suitable Conductor		Dimensions (mm)					
	Catalog No.	Diameter (mm)	b	S	D	L	a	Φ
SYG-500/35A	500/35	30.0	80	16	52	130	105	31.5
SYG-500/45A	500/35	30.0	80	16	52	130	105	31.5
SYG-500/65A	500/65	30.96	80	16	52	130	105	32.5
SYG-630/45A	630/45	33.6	100	20	60	150	105	35.5
SYG-630/55A	630/55	34.32	100	20	60	150	105	36.0
SYG-630/80A	630/80	34.82	100	20	60	150	105	36.5
SYG-800/55A	800/55	38.4	125	22	65	170	130	40.0
SYG-800/70A	800/70	38.58	125	22	65	170	130	40.5
SYG-800/100A	800/100	38.98	125	22	65	170	130	40.5

Remark: *b,*S,*D,*L,*a,* Φ , please refer to related product drawings.

COMPRESSION TYPE ALUMINIUM TERMINAL CONNECTOR



The terminal connector is used for the connection among bus-bar, downlead, and electrical equipment (such as transformers, circuit breakers, transformers, isolating switches, etc.). The compression aluminum terminal connector adopts hydraulic construction.

Technical features:

1. The resistance at both ends of the conductor joint of compression type terminal connector shall not be greater than resistance of an

equivalent length of conductor;

2. The temperature rise at the conductor joint shall not be greater than temperature rise of conductor;
3. The current carrying capacity of terminal connector shall not be less than the carrying capacity of the down lead;
4. The slip strength of compression type Al terminal connector is not less than 10% RTS of conductor.

Product advantages:

1. The surface is smooth and flat without burrs;
2. The connector made of aluminium;
3. It has good electrical contact performance reduce;
4. It is suitable for permanent connection.

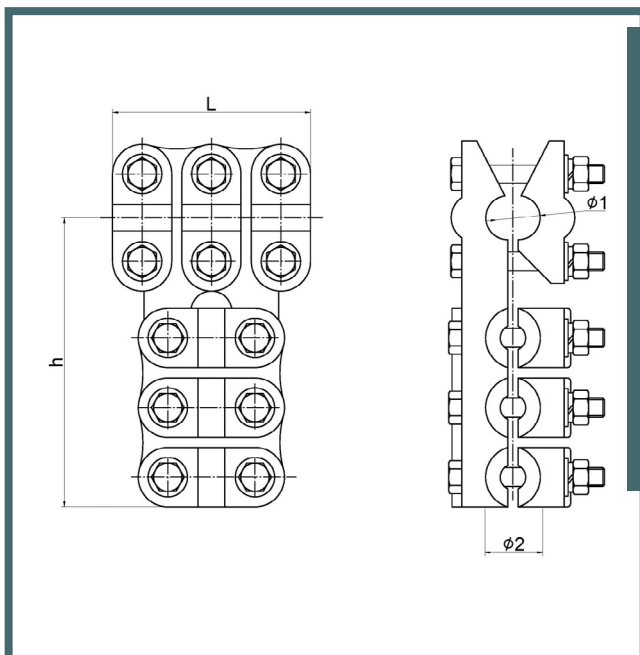
Catalog No.	Suitable Conductor		Dimensions (mm)					
	Catalog No.	Diameter (mm)	a	b	d	L1	L	Φ
SY-35/6A	35/6	8.16	30	8	16	60	60	9.5
SY-50/8A	50/8	9.6	30	8	18	60	60	11.0
SY-70/10A	70/10	11.4	40	8	22	70	60	13.0
SY-95/15A	95/15	13.61	40	8	26	80	60	15.0
SY-120/7A	120/7	14.5	50	10	26	80	80	16.0
SY-120/20A	120/20	15.07	50	10	26	80	80	16.6
SY-150/8A	150/8	16.0	50	10	30	90	80	17.5
SY-150/20A	150/20	16.67	50	10	30	90	80	18.0
SY-185/10A	185/10	18.0	50	12	32	90	80	19.5
SY-185/25-30A	185/25	18.9	50	12	32	90	80	20.5
	185/30	18.88						
SY-210/10A	210/10	19.0	50	12	34	100	80	20.5
SY-210/25A	210/25	19.98	50	12	34	100	80	21.5
SY-240/30-40A	240/30	21.6	50	12	36	100	80	23.0
	240/40	21.66						
SY-300/15A	300/15	23.01	63	16	40	110	100	24.5
SY-300/20A	300/20	23.43	63	16	40	110	100	25.0



Catalog No.	Suitable Conductor		Dimensions (mm)					
	Catalog No.	Diameter (mm)	a	b	d	L1	L	Φ
SY-300/25-40A	300/25	23.76	63	16	40	110	100	25.5
	300/40	23.94						
SY-400/20-35A	400/20	26.91	63	16	45	120	100	28.5
	400/25	26.64						
	400/35	26.82						
Y-400/50A	400/50	27.63	63	16	45	120	100	29.5
SY-500/35-45A	500/35	30.0	80	16	52	130	100	31.5
	500/45	30.0						
SY-500/65A	500/65	30.96	80	16	52	130	100	32.5
SY-630/45A	630/45	33.6	100	20	60	150	100	35.5
SY-630/55A	630/55	34.32	100	20	60	150	100	36.0
SY-800/55A	800/55	38.4	125	22	65	170	125	40.0
SY-800/70-100A	800/70	38.58	125	22	65	170	125	40.5
	800/100	38.98						

Remark: *b,*S,*D,*L,*a,*Φ, please refer to related product drawings.

T-CONNECTORS (TYPE TLD. BOLTED TYPE)



Bolted type T clamps use bolts to fasten the conductor, which is convenient for installation and disassembly. When the line is changed or shifted, the clamps can still be used after they are removed. It can be installed with the down-lead with the same specifications as the bus bar or different specifications from the bus bar.

Technical features:

1. The resistance at both ends of the conductor joint of bolted type T clamp shall not be greater than 1.1 times of resistance of an equivalent length of conductor;
2. The temperature rise at the conductor joint shall not be greater than temperature rise of conductor;
3. The current carrying capacity of T clamp shall not be less than the carrying capacity of the down lead;
4. The slip strength of T clamp is not less than 10% RTS of conductor.

Product advantages:

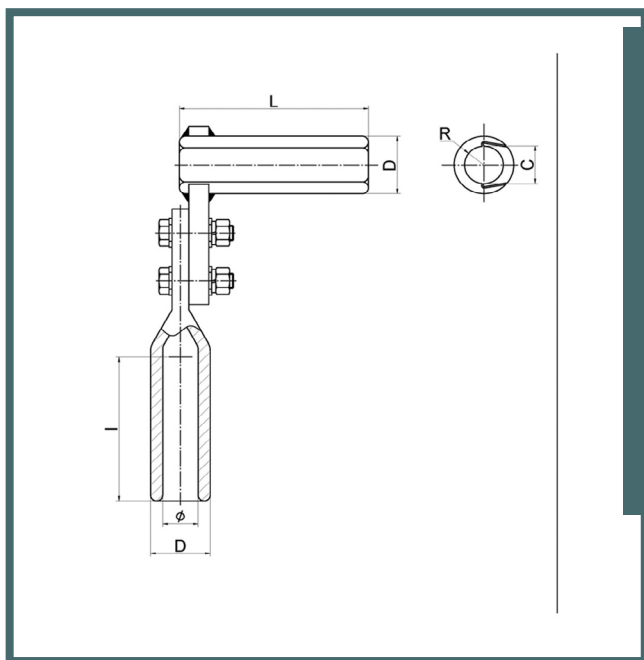
1. The surface is smooth and flat without burrs;
2. The connector made of aluminium alloy;
3. It has good electrical contact performance reduce;
4. The contact resistance is extremely stable.

Catalog No.	Suitable Conductor		Dimensions (mm)			
	Bus bar	Down lead	Φ1	Φ2	h	L
TLD-300/300	24.2	24.2	25	25	199	146
TLD-400/400	28.0	28.0	28	28	199	146
TLD-300/185	24.2	19.0	25	19	168	146
TLD-400/240	28.0	21.6	28	22	168	146
TLD-300/120	24.2	15.5	25	16	168	146
TLD-400/150	28.0	17.2	28	18	168	146
TLD-185/185	19.0	19.0	19	19	160	115
TLD-240/240	21.6	21.6	22	22	160	115
TLD-500/500	30.2	30.2	31	31	199	146
TLD-600/600	32.5	32.5	33	33	199	146

Remark: *Φ1,*Φ2,*h,*L, please refer to related product drawings.

T-CONNECTORS

(TYPE TY, COMPRESSION TYPE)



The compression T clamp makes aluminum tube and conductor as a whole by an external force. It can be installed with the down-lead with the same specifications as the bus bar or different specifications from the bus bar. The installation of this T clamp in the substation requires the matching hydraulic press and steel mold.

Technical features:

1. The resistance at both ends of the conductor joint of compression T clamp shall not be greater than resistance of an equivalent length of conductor;
2. The temperature rise at the conductor joint shall not be greater than temperature rise of conductor;
3. The current carrying capacity of T clamp shall not be less than the carrying capacity of the down lead;
4. The slip strength of T clamp is not less than 10% RTS of conductor.

Product advantages:

1. The surface is smooth and flat without burrs;
2. The connector made of aluminium;
3. It has good electrical contact performance reduce;
4. The contact resistance is extremely stable.

Catalog No.	Suitable Conductor		Dimensions (mm)					
	Catalog No.	Diameter (mm)	C	D	L	I	Φ	R
TY-120/7	120/7	14.5	16	26	115	80	16.0	8.0
TY-150/8	150/8	16.0	18	30	125	90	17.5	9.0



Catalog No.	Suitable Conductor		Dimensions (mm)					
	Catalog No.	Diameter (mm)	C	D	L	I	Φ	R
TY-150/20	150/20	16.67	18	30	125	90	18.0	9.5
TY-185/10	185/10	18.0	21	32	125	90	19.5	9.9
TY-185/25	185/25	18.9	21	32	125	90	20.5	10.4
TY-210/10	210/10	19.0	22	34	135	100	20.5	10.3
TY-210/25	210/25	19.98	22	34	135	100	21.5	10.9
TY-240/30	240/30	21.6	24	36	135	100	23.0	11.7
TY-300/15	300/15	23.01	26	40	145	110	24.5	12.3
TY-300/20	300/20	23.43	26	40	145	110	25.0	12.6
TY-300/25	300/25	23.76	26	40	145	110	25.5	12.9
TY-300/40	300/40	23.94	26	40	145	110	25.5	12.9
TY-400/20	400/20	26.91	30	45	155	120	28.5	14.4
TY-400/25	400/25	26.64	30	45	155	120	28.5	14.4
TY-400/35	400/35	26.82	30	45	155	120	28.5	14.4
TY-400/50	400/50	27.63	30	45	155	120	29.5	14.9
TY-500/35	500/35	30.0	32	52	165	130	31.5	15.8
Y-400/50A	400/50	27.63	63	16	45	120	100	29.5
TY-500/45	500/45	30.0	32	52	165	130	31.5	15.8
TY-500/65	500/65	30.96	32	52	165	130	32.5	16.4
TY-630/45	630/45	33.6	36	60	185	150	35.5	17.9
TY-630/55	630/55	34.32	36	60	185	150	36.0	18.2
TY-630/80	630/80	34.82	36	60	185	150	36.5	18.4
TY-800/55	800/55	38.4	41	65	210	170	40.0	20.2
TY-800/70	800/70	38.58	41	65	210	170	40.5	20.5
TY-800/100	800/100	38.98	41	65	210	170	40.5	20.5

Remark: C,*D,*L,*I,*Φ, R, please refer to related product drawings.



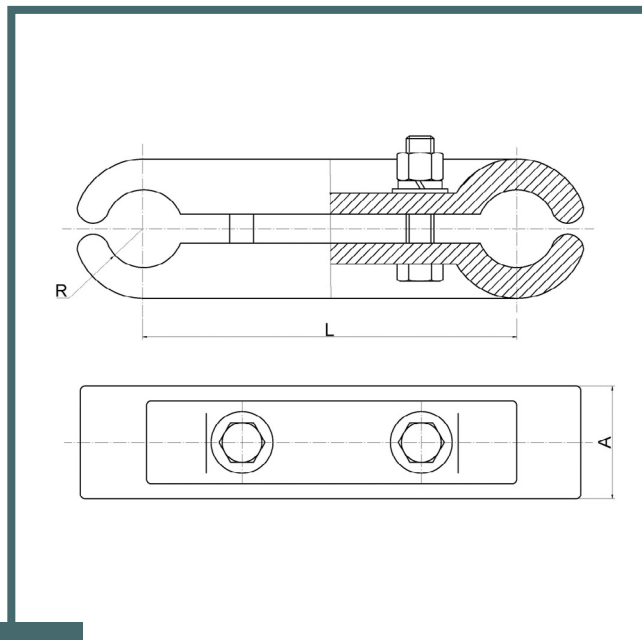
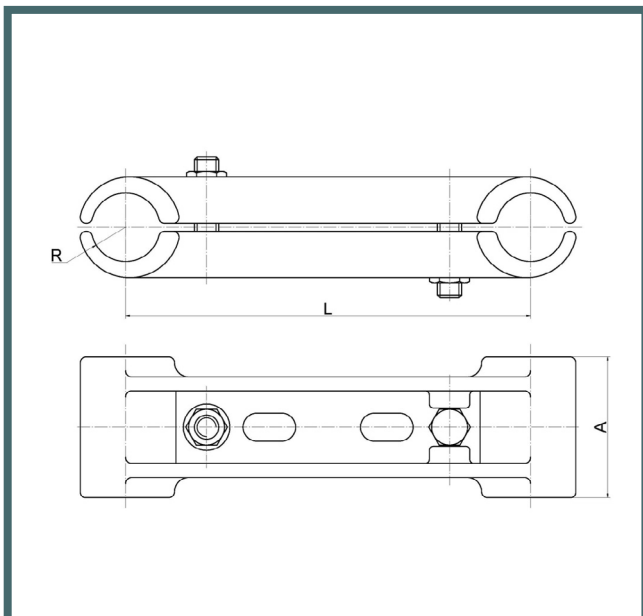
Spacer



Spacers are installed on multiple bundle conductors to keep certain distance among each other so as to avoid impact, restrain wind vibration and sub-span oscillation.

Products

SPACER



A spacer is used to fix soft bus bars, most need to withstand greater tension load during operation while ensuring good electrical contact.

Technical features:

In order to keep the distance between the soft busbars and its downlead conductors unchanged and the two wires do not collide, a spacer should be installed in the span and the soft busbars of the down lead conductor. The installation distance of the spacer is determined by the design.

Product advantages:

1. The surface is polished, smooth without burrs;
2. The clamp made of aluminium alloy;
3. It can eliminate hysteresis loss and corona loss;
4. Light weight, reducing the load of the busbar.

Catalog No.	Suitable Diameter (mm)	Dimensions (mm)			
		Fig.No.	A	L	R
MRJ-4/120	19.02~21.28	1	50	120	11
MRJ-5/120	23.70~27.36	1	60	120	14

Catalog No.	Suitable Diameter (mm)	Dimensions (mm)			
		Fig.No.	A	L	R
MRJ-6/120	30.16~33.2	1	70	120	17
MRJ-4/200	19.02~21.28	1	50	200	11
MRJ-5/200	23.70~27.36	1	60	200	14
MRJ-6/200	30.16~33.2	1	70	200	17
MRJ-4/400	19.02~21.28	1	50	400	11
MRJ-5/400	23.70~27.36	1	60	400	14
MRJ-6/400	30.16~33.2	1	70	400	17
MRJ-600K-120	LGKK-600	2	50	120	26
MRJ-600K-200	LGKK-600	2	50	200	26
MRJ-600K-400	LGKK-600	2	50	400	26
MRJ-600K-450	LGKK-600	2	50	450	26
MRJ-900K-120	LGKK-900	2	50	120	26
MRJ-1400-120	LGJQT-1400	2	50	120	26
MRJ-1400-200	LGJQT-1400	2	50	200	26
MRJ-1400-400	LGJQT-1400	2	60	400	26
MRJ-1400-450	LGJQT-1400	2	60	450	26
MRJ-1400N-200	NAHLGJQ-1400	2	60	200	26
MRJ-1400N-400	NAHLGJQ-1400	2	60	400	26

Remark: *A,*L,*R, please refer to related product drawings.



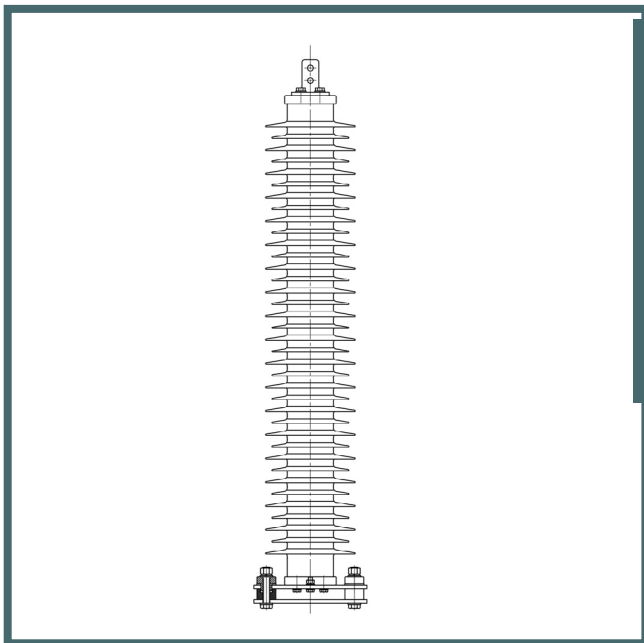
Arrester



Surge arrester is also called overvoltage protector and overvoltage limiter. It is connected in parallel to the front end of the protected equipment to protect other electrical equipment from lightning overvoltage, operating overvoltage and power frequency transient overvoltage impact.

Products

COMPOSITE PEDESTAL ARRESTER



Surge arrester is also called overvoltage protector and overvoltage limiter. It is connected in parallel to the front end of the protected equipment. Which can protect other electrical equipment from lightning overvoltage, operating overvoltage, and power frequency transient overvoltage impact.

Technical features:

High Voltage Line With Gap Arrester is mainly composed of insulating housing (composite or ceramic material), resistor, and end accessories.

Product advantages:

1. The resistors are manufactured with high-quality raw materials and strict processes. The comprehensive performance of the resistors has reached China's advanced level. Especially the current capacity, high current impact and residual voltage ratio performance have reached China's leading level.
2. The use of durriton encapsulating materials or epoxy composite casing fundamentally solves the problem of product failure caused by moisture intrusion. Even in a high temperature environment with a humidity of more than 90%, there will not be any failures.
3. Silicone rubber material is highly hydrophobic. It can prevent rainwater from forming continuous channels and prevent any pollutants from accumulating during use. Make the product corrosion resistant and cut off the leakage current path. Moreover, the flame retardant and self-extinguishing properties of the material can realize the product cleaning-free function.

System voltage		110kV			220kV	
Type		10WZ-100/260	10WZ-102/266	10WZ-108/281	10WZ-204/532	10WZ-216/562
Electric parameters	Rated voltage UR (kV)	100	102	108	204	216

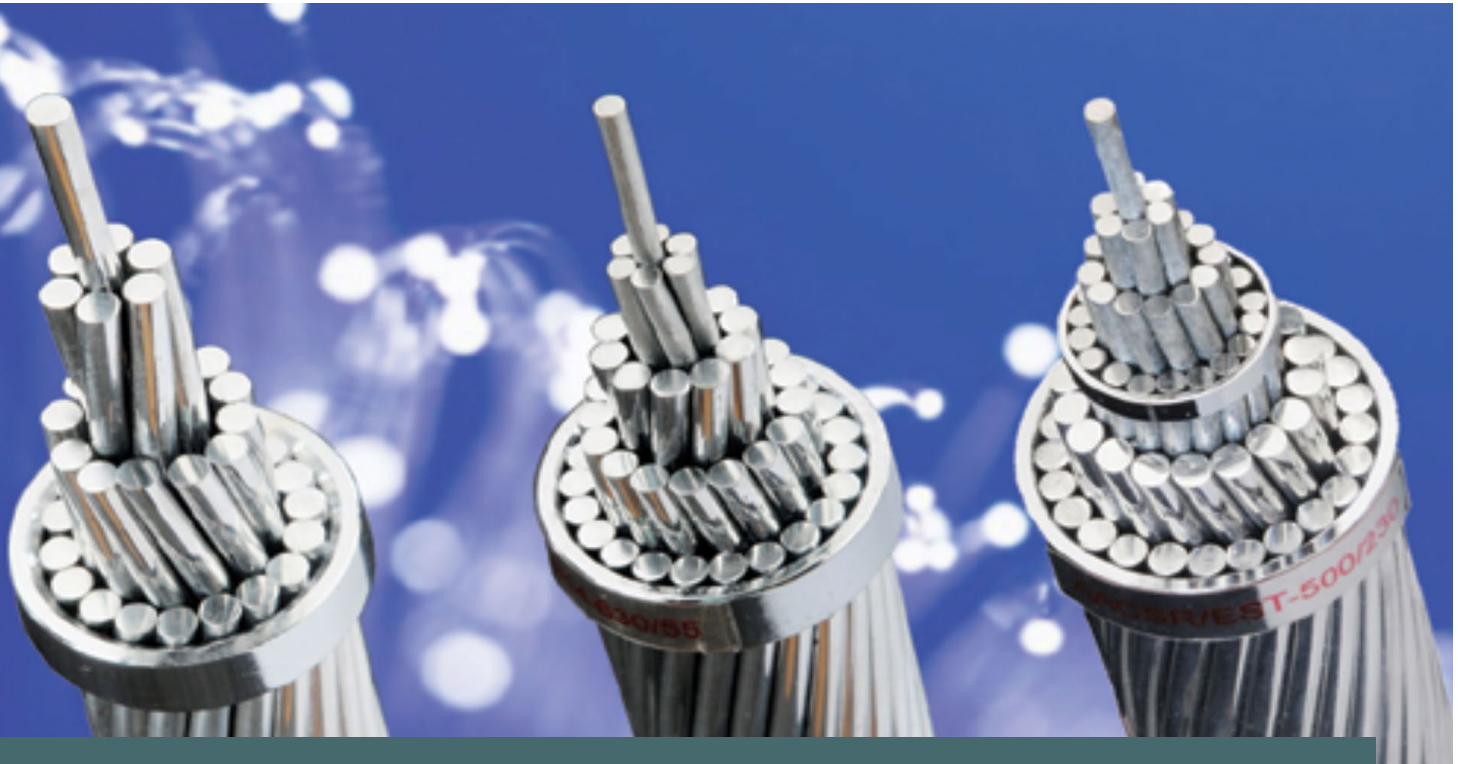


System voltage		110kV			220kV	
Type		10WZ-100/260	10WZ-102/266	10WZ-108/281	10WZ-204/532	10WZ-216/562
Electric parameters	Continuous operating voltage U_c (kV)	80	81.6	86.4	163.2	172.8
Electric parameters	1mA DC reference voltage U_{1mA} (kV)	153	155	164	310	328
Electric parameters	Nominal discharge current (kA)	10	10	10	10	10
Electric parameters	Steep current impulse residual voltage (kV)	291	297	314	594	628
Electric parameters	Lightning impulse residual voltage (kV)	260	266	281	532	562
Electric parameters	Switching impulse residual voltage (kV)	221	225	239	451	477
Electric parameters	Square wave impulse withstand Current (A)	600/800	600/800	600/800	600/800	600/800
Electric parameters	High Current impulse withstand Current (kA)	100	100	100	100	100
Electric parameters	Pollution class	IV	IV	IV	IV	IV
Structural parameters	Overall height H (mm)	1305	1305	1305	2523	2523
Structural parameters	Cree-page distance (mm)	4035	4035	4035	8070	8070
Structural parameters	Shed diameter Φ (mm)	214	214	214	214	214





Conductor

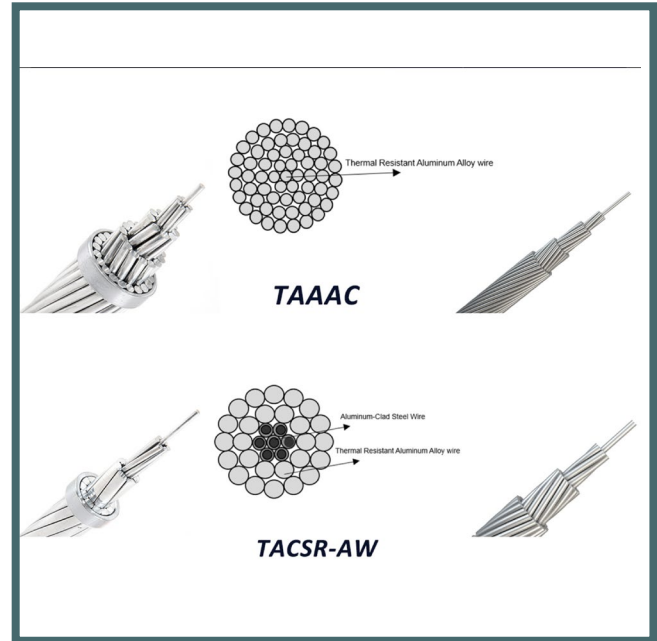
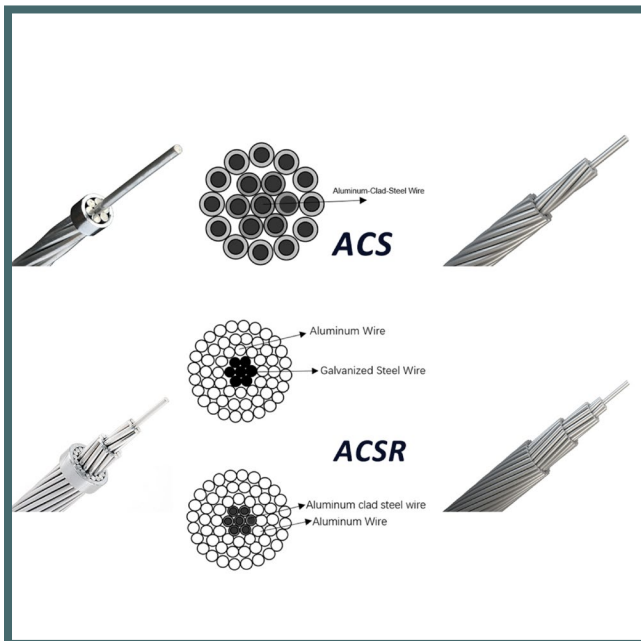


Conductor Type:

- AAC-All Aluminum Conductors
- AAAC -All Aluminum Alloy Conductors
- ACSR- Aluminum Conductors Steel Reinforced
- ACSR/AW -Aluminum Conductors Aluminum Clad Steel Reinforced
- ACAR-All Aluminum Conductor Alloy Reinforced-
- AACSR-Aluminum Alloy Conductors Steel Reinforced

Products

CONDUCTOR



Technical details:

ACSR - Aluminum Conductor Steel Reinforced.

Characteristics:

1. The steel core mainly plays the role of increasing strength, while the aluminum strand mainly plays the role of transmitting electrical energy.
2. Simple structure, easy erection, and maintenance, low line cost, large transmission capacity,
3. It is also conducive to laying across rivers and valleys and other special geographical conditions
4. It has good electrical conductivity, sufficient mechanical strength, high tensile strength, and the distance of the pole can be enlarged.

Parameters

Code Name	Cross Section	Stranding Design Alumi-num / Steel	Diameter of Aluminum Wires	Diameter of Steel Wire	Wire Nominal O.D. of Conductor	Nominal Weight	Weight Rated Strength	Maximum DC Resistance at 20°C
	mm ²		mm	mm	mm	kg/km	kN	Ω/km
Robin	49.47	6-Jan	3	3	8.99	171.1	15.8	0.6743
Sparrow	39.25	6-Jan	2.67	2.67	8.03	135.7	12.7	0.8499



Code Name	Cross Section	Stranding Design Alumi-num / Steel	Diameter of Aluminum Wires	Diameter of Steel Wire	Wire Nominal O.D. of Conductor	Nominal Weight	Weight Rated Strength	Maximum DC Resistance at 20°C
	mm ²		mm	mm	mm	kg/km	kN	Ω/km
Swan	24.67	6-Jan	2.12	2.12	6.35	85.3	8.3	1.3522
Raven	62.46	6-Jan	3.37	3.37	10.11	216.1	19.5	0.5341
Quail	78.64	6-Jan	3.78	3.78	11.35	272	23.6	0.4242
Pigeon	99.16	6-Jan	4.25	4.25	12.75	343	29.4	0.3364
Penguin	125.1	6-Jan	4.77	4.77	14.3	432.7	37.1	0.2667
Waxwing	142.59	18-Jan	3.09	3.09	15.47	430.2	30.7	0.2127
Partridge	157.22	26-Jul	2.57	2	16.31	545.9	50.3	0.2136
Ostrich	176.69	26-Jul	2.73	2.12	17.27	613.4	56.5	0.19
Merlin	179.91	18-Jan	3.47	3.47	17.37	542.8	38.7	0.1686
Linnet	198.03	26-Jul	2.89	2.25	18.29	687.5	62.7	0.1695
Oriole	210.26	30-Jul	2.69	2.69	18.82	783.3	77	0.1698
Chicka-dee	212.59	18-Jan	3.77	3.77	18.87	641.3	44	0.1427
Brant	227.54	24-Jul	3.27	2.18	19.61	761	64.9	0.1434
Ibis	234.02	26-Jul	3.14	2.44	19.89	812.4	72.5	0.1435
Lark	248.38	30-Jul	2.92	2.92	20.47	925.2	90.3	0.1437
Pelican	255.16	18-Jan	4.14	4.14	20.68	769.7	52.5	0.1189
Flicker	273.11	24-Jul	3.58	2.39	21.49	913.5	76.5	0.1194
Hawk	280.86	26-Jul	3.44	2.67	21.79	975.1	86.7	0.1196
Hen	298.12	30-Jul	3.2	3.2	22.43	1110.6	105.9	0.1198
Osprey	297.54	18-Jan	4.47	4.47	22.33	897.7	60.9	0.1019
Parakeet	318.62	24-Jul	3.87	2.58	23.22	1065.6	88.1	0.1024
Dove	327.92	26-Jul	3.72	2.89	23.55	1138.6	100.5	0.1024
Peacock	346.45	24-Jul	4.03	2.69	24.21	1158.9	96.1	0.09416





Code Name	Cross Section	Stranding Design Alumi-num / Steel	Diameter of Aluminum Wires	Diameter of Steel Wire	Wire Nominal O.D. of Conductor	Nominal Weight	Weight Rated Strength	Maximum DC Resistance at 20°C
	mm ²		mm	mm	mm	kg/km	kN	Ω/km
Squab	356.28	26-Jul	3.87	3.01	24.54	1237	108.1	0.09425
Wood Duck	378.04	30-Jul	3.61	3.61	25.25	1408.4	128.6	0.09444
Teal	376.4	30/19	3.61	2.16	25.25	1396.6	133.4	0.09444
Kingbird	340.27	18-Jan	4.78	4.78	23.88	1026.6	69.8	0.08914
Swift	331.14	36/1	3.38	3.38	23.62	956.5	61.4	0.08919
Rook	364.07	24-Jul	4.14	2.76	24.82	1217.5	100.5	0.08959
Grosbeak	374.71	26-Jul	3.97	3.09	25.15	1300.8	112.1	0.08961
Scoter	397.45	30-Jul	3.7	3.7	25.88	1480.7	135.2	0.08982
Egret	395.8	30/19	3.7	2.22	25.88	1469	140.1	0.08982
Flamingo	381.72	24-Jul	4.23	2.82	25.4	1276.6	105.4	0.08545
Gannet	392.67	26-Jul	4.07	3.16	25.76	1363.3	117.4	0.08551
Stilt	409.7	24-Jul	4.39	2.92	26.31	1370.4	113.4	0.07961
Starling	421.62	26-Jul	4.21	3.28	26.7	1463.7	126.3	0.07964
Redwing	444.94	30/19	3.92	2.35	27.46	1650.6	153.9	0.07988
Coot	414	36/1	3.77	3.77	26.42	1195.8	74.7	0.07134
Cuckoo	455.01	24-Jul	4.62	3.08	27.74	1522.2	124.1	0.07169
Drake	468.61	26-Jul	4.44	3.45	28.14	1626.4	140.1	0.07165
Tern	430.58	45/7	3.38	2.25	27	1331.8	98.3	0.0717
Condor	454.79	54/7	3.08	3.08	27.74	1520.7	125.4	0.07172
Mallard	494.79	30/19	4.14	2.48	28.96	1836	170.8	0.07185
Ruddy	487.44	45/7	3.59	2.4	28.73	1507.3	108.5	0.06334
Canary	515.16	54/7	3.28	3.28	29.51	1723.1	141.9	0.06332
Catbird	496.9	36/1	4.14	4.14	28.96	1434.4	88.1	0.05944





Code Name	Cross Section	Stranding Design Alumi-num / Steel	Diameter of Aluminum Wires	Diameter of Steel Wire	Wire Nominal O.D. of Conductor	Nominal Weight	Weight Rated Strength	Maximum DC Resistance at 20°C
	mm ²		mm	mm	mm	kg/km	kN	Ω/km
Rail	516.83	45/7	3.7	2.47	29.59	1598.1	115.2	0.05974
Cardinal	545.93	54/7	3.38	3.38	30.38	1825.9	150.3	0.05975
Tanager	538.01	36/1	4.3	4.3	30.12	1553.5	95.2	0.05489
Ortolan	559.54	45/7	3.85	2.57	30.78	1730.5	123.2	0.05518
Curlew	591.2	54/7	3.51	3.51	31.62	1977.6	162.8	0.05518
Bluejay	603.22	45/7	4	2.66	31.98	1866	132.6	0.05118
Finch	635.77	54/19	3.65	2.19	32.84	2127.8	173.9	0.05143
Bunting	646.09	45/7	4.14	2.76	33.07	1996.9	142.3	0.04778
Grackle	680.81	54/19	3.77	2.27	33.99	2278.1	186.4	0.04802
Skylark	662.64	36/1	4.78	4.78	33.43	1913.6	117.4	0.04457
Bittern	688.9	45/7	4.27	2.85	34.16	2130.8	151.7	0.04482
Pheasant	726.38	54/19	3.9	2.34	35.1	2431.4	193.9	0.04501
Dipper	732.12	45/7	4.4	2.93	35.2	2263.2	161	0.04217
Martin	771.51	54/19	4.02	2.41	36.17	2581.7	206	0.04237
Bobolink	775.04	45/7	4.53	3.02	36.25	2397.2	170.4	0.03984
Plover	817.1	54/19	4.14	2.48	37.21	2734.9	218.4	0.04001
Nuthatch	818.16	45/7	4.65	3.1	37.24	2529.6	178.4	0.03773
Parrot	861.79	54/19	4.25	2.55	38.23	2883.7	230	0.03793
Lapwing	861.6	45/7	4.78	3.18	38.2	2663.5	187.7	0.03583
Falcon	907.86	54/19	4.36	2.62	39.24	3038.5	242.4	0.03601
Chukar	975.86	84/19	3.7	2.22	40.69	3083.1	226.9	0.03216
Bluebird	1181.26	84/19	4.07	2.44	44.75	3731.9	268.2	0.03656
Kiwi	1145.7	72/7	4.41	2.94	44.07	3423.9	221.5	0.02642
Thrasher	1235.08	76/19	4.43	2.07	45.77	3754.2	252.2	0.02477





Overseas References

Country	Total Length
USA	2600km
Finland	2130km
Chile	6800km
Peru	5000km
Thailand	5200km
Malaysia	9000km
Kenya	1700km
Nigeria	600km
Saudi Arabia	2100km
Indonesia	800km

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