



APAR

Tomorrow's solutions today

CONDUCTORS



ABOUT

APAR

APAR Industries Limited, founded by Late Mr. Dharmsinh D. Desai in the year 1958 is one among the best established companies in India operating in the diverse fields of electrical, metallurgical and chemical engineering. Over the ensuing years it has evolved to be a 1 Billion US Dollar diversified company offering value added products and services in Power Conductors, OPGW Products, Wire & Cables, Copper Products and Petroleum Specialities.

A technology - driven and customer - focused vendor to some of the most brand enhancing power companies in India and abroad, APAR has strengthened the business of its customers through proactive product development, timely product delivery and superior product attributes by

reinforcing product innovation, cost leadership and premium quality and living its vision 'Tomorrow's Solution Today' resulting in Reliability, Respect, Reputation and Repeat business across customers of Power Conductors, OPGW, Wire & Cables, Copper Products and Petroleum Specialities.



ABOUT

CONDUCTORS

DIVISION

“ Leading the innovation curve in over 125+ countries

- ✓ Largest Overhead Conductor manufacturer in the world.
 - ✓ Third largest transformer oil manufacturer in the world.
 - ✓ Manufacturers of the widest range of cables in India.
- ”

Aluminium alloy rods and conductors were developed first in India by APAR through its own R&D initiatives. Factors that enabled APAR to emerge as the lowest - cost producer of aluminium conductors in the world include increase in the installed capacity, strategic location of manufacturing facilities in favorable geographies, tax jurisdictions, backward integration and increased productivity. APAR's backward integration enables it to make complete range of aluminum conductors by altering chemical properties at the alloying stage and tailoring products to match customer needs.

APAR enjoys the reputation of being a reliable long-term supplier in a market marked by fluctuating raw material availability and cost spikes. It supplies to all the top 25 turnkey operators in the world and also to all the leading utilities in Asia, Africa, Latin America.

As a member of the standardizing committee formed by the Bureau of Indian Standards, Govt. of India for preparing National Standards (ISI) for the transmission & distribution conductors up to 800 KVA and the standardizing committee formed by the Rural Electrification Company Ltd., Government of India.

APAR's modern plants at Silvassa and Odisha in India enable us to produce world-class quality in massive capacities. We maintain total in-house control over the design, manufacturing and testing process. This enables us to guarantee innovation and quality while maintaining cost competitiveness.

Our commitment to leading the innovation curve is why we've pioneered turnkey solutions for re-conductoring with HTLS, OPGW live line installation and environmentally-friendly packaging solutions. Six decades of experience and expertise is hard to replicate.



APAR

CONDUCTORS

MANUFACTURES

ALUMINIUM WIRE RODS for various applications:

- EC Grade Aluminium Wire Rods
- Aluminium Alloy Wire Rods (6201 Alloy Rod in T-4 & M Temper - online solutionized)
- Mechanical Grade Alloy Wire Bundles (T- 81temper)

ACSR/AACSR/ACAR/AAA/ACSR-AW CONDUCTORS for Overhead Power Transmission & Distribution:

- AAC (All Aluminium Conductors)
- ACSR (Aluminium Conductor Steel Reinforced),
- ACSR/AW (Aluminium Conductor Aluminium Clad Steel Reinforced)
- AACSR (Aluminium Alloy Conductor Steel Reinforced),
- AACSR/AW (Aluminium Alloy Conductor Clad Steel Reinforced)
- AAAC (All Aluminium Alloy Conductors),
- ACAR (Aluminium Conductor Alloy Reinforced)

ALUMINIUM WIRE RODS for various applications:

- High Conductivity Alloy Conductors (AL 59, AL-57, AAAC 1120 etc.)
- High Temperature Thermal Resistant Alloy conductors (TACSR, TACSR/AW, STACIR/AW, TACSR/TW etc.)
- High Temperature Low Sag conductors (ACSS & ACSS/TW & GZTACSR/GTACSR)



APAR INDUSTRIES LTD, CONDUCTORS DIVISION

Manufacturer of Conductor, OPGW & Wire Rods for Power Transmission and Distribution, shall aim to achieve and sustain excellence in all activities.

We are committed to total Customer Satisfaction and continual improvement by providing quality products and services to comply quality requirements which meet customer expectations at all times.

WE ARE FURTHER COMMITTED TO PROVIDE:

- 1** Safe and healthy working environment for all employees including contract persons.
- 2** Training to all employees for skill and competence building and involvement at all levels in QHSE Activities.
- 3** Compliance to all applicable legal and other requirements.
- 4** Continual improvement of QHSE performance.
- 5** Prevention of pollution, injury and ill health.
- 6** Conservation and optimum use of Natural Resources.

APAR

QUALITY
POLICY



POWERLINE

PRODUCT FEATURES

- 1 EC GRADE ALUMINIUM WIRE ROD -**
7.60 mm, 9.50 mm, 12.0 mm (For all kinds of Cables & Conductors)
- 2 AL. ALLOY WIRE RODS (6101 & 6201 GRADE) & MECHANICAL ALLOY WIRE RODS (6061,6063 & 65032 GRADE)-**
7.60 mm, 9.50 mm, 12.0 mm (For all kinds of Cables & Conductors)
- 3 MECHANICALLY ALLOY WIRE**
3.0 to 12.0 mm, TS temper- (Sol. treated, Cold worked & artificially aged)
- 4 ALL ALUMINIUM CONDUCTOR(AAC):**
is made up of one or more strands of hard drawn Aluminum Wires. The EC grade aluminum Conductor has a minimum conductivity of 61.0% IACS.

FEATURES:

- High current carrying capacity.
- Suitable for low and medium voltage lines in urban area
- Excellent resistance to corrosion
- Ideal for use in low humid and low corrosive areas

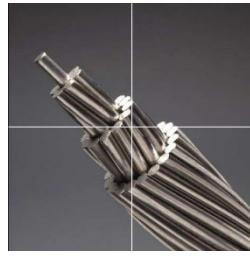
[Aluminum 1350-H19 Wires](#)



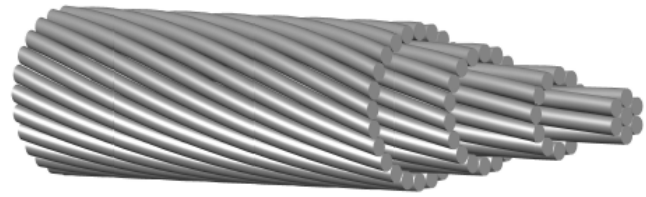
[Wire Rods & Specialty Wires](#)



ACSR Overhead Conductors



Aluminum Alloy Conductor - AAAC



5 ALUMINIUM CONDUCTOR STEEL REINFORCED (ACSR):

These are concentrically stranded conductor with one or more layers of hard drawn Aluminium wire on galvanized steel wire core which are coated with zinc with Class A Coating. The core can be single wire or stranded depending on the size of the conductors.

FEATURES:

- High Tensile strength
- Better sag properties
- Economic design
- Suitable for remote applications involving long spans

6 ALL ALUMINIUM ALLOY CONDUCTORS (AAAC):

These are made out of high strength Aluminium Magnesium-Silicon alloy. As compared to conventional ACSR, AAAC are of lighter weight, comparable strength & current carrying capacity, lower electrical losses and superior corrosion resistance, This has given AAAC a wide acceptance in the distribution and transmission lines.. This conductor has a minimum conductivity of 52.5% I ACS.

FEATURES:

- High strength to weight ratio
- Better sag characteristics
- Improved electrical properties
- Excellent resistance to corrosion



7 Aluminium Alloy Conductor Steel Reinforced Conductors (AACSR):

is a concentrically stranded conductor composed of one or more layers of Aluminium-Magnesium-Silicon alloy wire stranded with a high-strength coated steel core. AACSR Conductors have approx. 40% to 60% more strength than comparable standard ACSR with only 8 to 10% decrease in conductivity.

FEATURES:

- Offers optimal strength for line design
- Improved strength to weight ratio
- Ideal for extra long spans and heavy load conditions
- Excellent resistance to corrosion

8 Aluminium Conductor Steel Reinforced Conductors (ACAR):

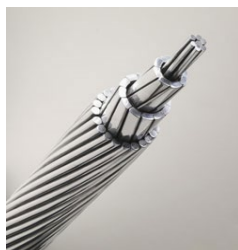
is formed by concentrically stranded Wires of Aluminium on high strength Aluminium-Magnesium-Silicon (AlMgSi) Alloy core. ACAR has got a better mechanical and electrical properties as compared to an equivalent conductors of ACSR, AAC or AAAC. A very good balance between the mechanical and electrical properties therefore makes ACAR the best choice where the ampacity, strength, and light weight are the main consideration of the line design. These conductors are extensively used in overhead transmission and distribution lines.

FEATURES:

- Improved strength to weight ratio
- Improved mechanical properties
- Improved electrical properties
- Excellent resistance to corrosion Specifications



[AACSR Overhead Conductors](#)

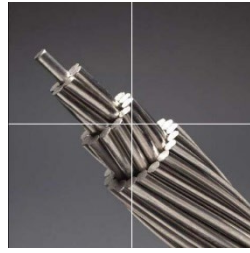


[ACAR – Overhead Conductor](#)

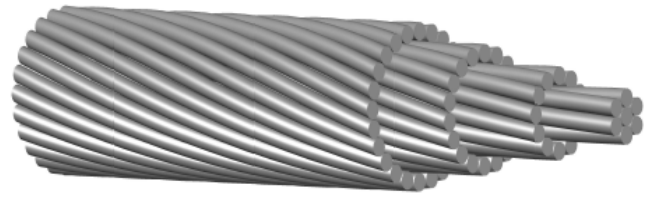




[ACSR/AW & AAA 1120 Overhead Conductors](#)



[Aluminum Alloy Conductors – AL-59 & AL-57](#)



9 Aluminium Conductor Aluminium Clad Steel Reinforced (ACSR/ AW or ACSR/ AS):

are concentrically stranded conductors with one or more layers of hard drawn Aluminium wires on Aluminium Clad steel wire core. The mechanical properties of ACSR/AS conductors are similar to ACSR conductors but offers improved ampacity and resistance to corrosion because of the presence of Aluminium clad steel wires in the core. These conductors are better replacement for ACSR conductors where corrosive conditions are severe.

FEATURES:

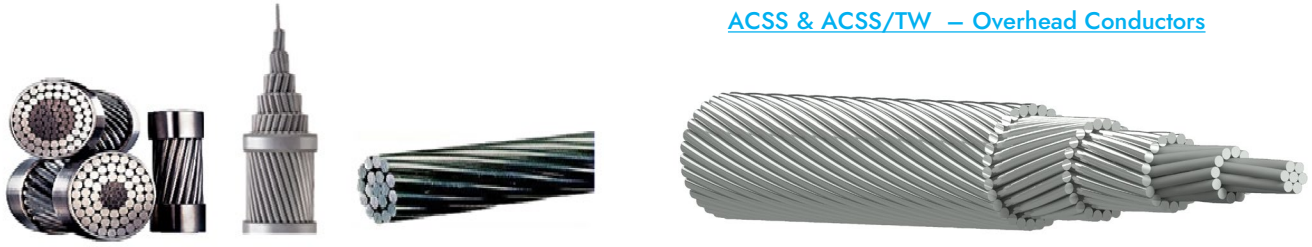
- Good mechanical properties
- Improved electrical characteristics
- Excellent corrosion resistance
- Better Sag properties.

10 High Conductivity Alloy Conductor (AL 59, AL 57, AAAC 1120 etc):

These are low resistance High Conductivity alloy conductors with excellent electrical characteristics, excellent sag-tension characteristics and superior corrosion resistance to that of ACSR. As compared to ACSR they have lighter weight, comparable strength and current carrying capacity, lower electrical losses and superior corrosion resistance have given this conductor wide acceptance as a transmission conductor. It has found limited use, however, as a distribution conductor

FEATURES:

- Better Conductivity, so better power transmission.
- Lower Operating costs due to lower ohmic losses.
- Can be recycled easily



TACSR Overhead Conductors

11 High Temperature Thermal Resistant Alloy Conductor (TACSR, TACSR/AW, TACIR/AW etc.)

These are high ampacity conductors with inner core composed of galvanized steel, Al. clad Steel, Al. clad Invar Steel etc. & outer layer composed of thermal resistant aluminium alloy.

FEATURES:

- These can operate up to 150°C degree with specified strength loss, Can carry 50 % to 60 % more current as that of ACSR of the same size.
- For upgrading lines, no modifications or reinforcement is required to the existing towers.

12 Aluminium Conductor Steel Supported (ACSS and ACSS/TW):

is constructed of fully annealed Aluminium wires formed into a Round or trapezoidal shape. The Aluminium wires are stranded around a steel core of seven or more wires as described in ASTM B-856 & ASTM B-857. ACSS & ACSS/TW can be designed with both equal area or equal diameter, compared to conventional round stranded conductors, to optimize line design options.

FEATURES:

- The improved conductor can operate continuously at temperatures up to 250°C without loss of strength;
- Its sag is less than that of conventional composite conductors;
- Final sags are not affected by creep;
- It has excellent self-damping characteristics

13 High Temperature Super Thermal Resistant Alloy Conductor (STACIR/ AW) :

These are high ampacity conductors with inner core composed of galvanized steel, Al. clad Steel, Al. clad Invar Steel etc. & outer layer composed of thermal resistant aluminum alloy. These can operate up to 210°C degree with specified strength loss, Can carry 100% more current as that of ACSR of the same size.

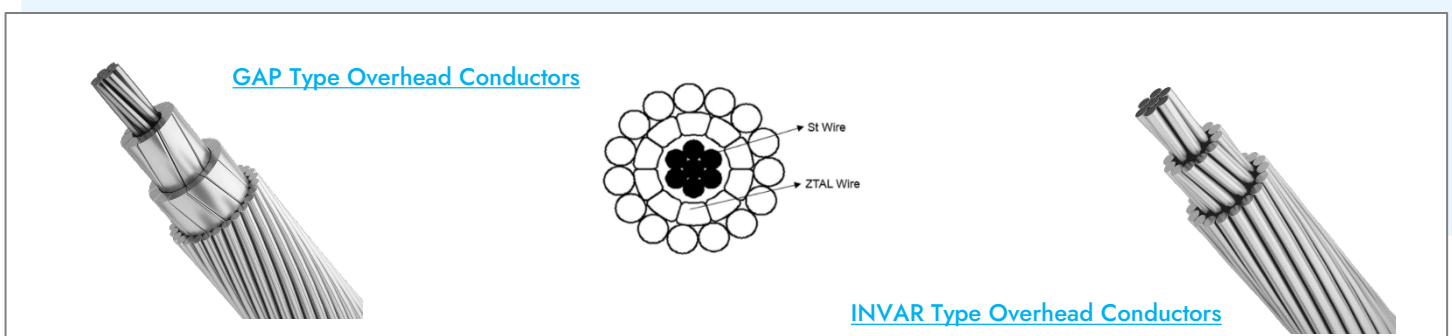
For uprating lines, no modifications or reinforcement is required to the existing towers.

14 Gap-type Conductor- GTACSR/GZTACSR:

These conductors have a special construction feature with a small gap filled with grease between the high strength steel core and the thermal resistant Al-Zr alloy conductive layers. Installation method of GZTACSR is well but requires skilled specialists because at the time of sagging, a special sagging method is required to apply all the tension to the steel core only. Gap-type conductors are particularly suitable to replace ACSR conductors in flat lands or in any case with small difference in level.

FEATURES:

- Tension the core and the external layer independently to have the knee-point at the installation temperature
- Limiting the sag increase with the increase of the temperature by the thermal expansion coefficient above knee-point related to the steel core
- Maintaining the mechanical strength of the conductor with continuous operating temperature up to 150°C & 210°C
- Reduced cost due to no expensive materials being required





15 GSW Earth Wire, Stay Wire, Guy Wires, Spaces Cables, etc.

are used as overhead ground wire or static wire on transmission lines, as pole or structure guy wires, and as messenger cable for field-erected aerial cable.

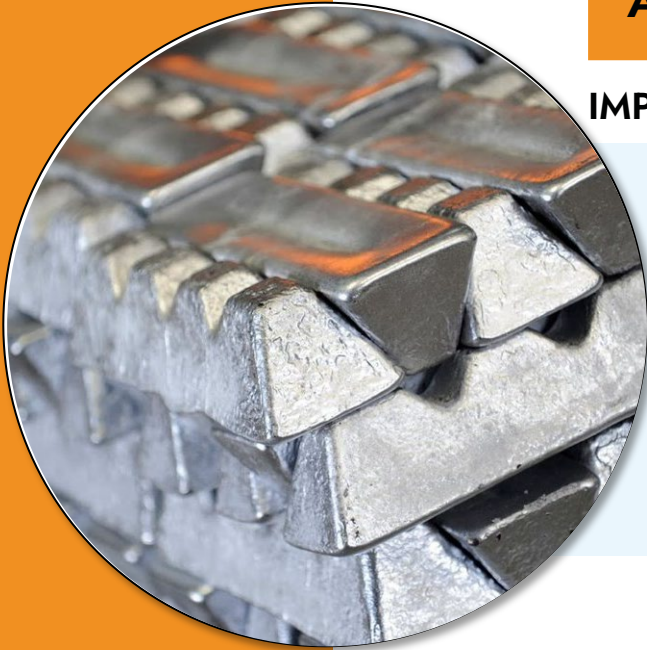
**“ OUR ACCOLADES SPEAK FOR THEMSELVES
&
WE HAVE THE QUALITY CERTIFICATES TO PROVE THEM ”**





PLANT

OVERVIEW



AL. SAW INGOT

IMPORTANT RAW MATERIALS & ITS SOURCES

- EC grade aluminium, high carbon wire rod, high grade electrolytic zinc, magnesium, silicon etc.
- London metal exchange
- All prime producers in India

- For conversion of aluminium ingots to aluminium wire rods.
- Aluminium ingots to aluminium alloy online solution treated wire rods in t-4 temper & m temper
- We have inhouse testing facility to



CC & R PLANT



PLANT

OVERVIEW

EC/AL. ALLOY WIRE

Final EC / Alloy wire rods

- EC grade aluminium wire rods (9.5 mm & 7.6 mm)
- Aluminium alloy wire rods (6201 alloy rod in T-4 temper - online solutionised).
- Aluminium alloy wire rods (6201 alloy rod in M temper).



- Drawing of E.C. / Al alloy wire rod to required size as drawn wires as per relevant technical specifications.

EC/ALLOY WIRE DRAWING M/C



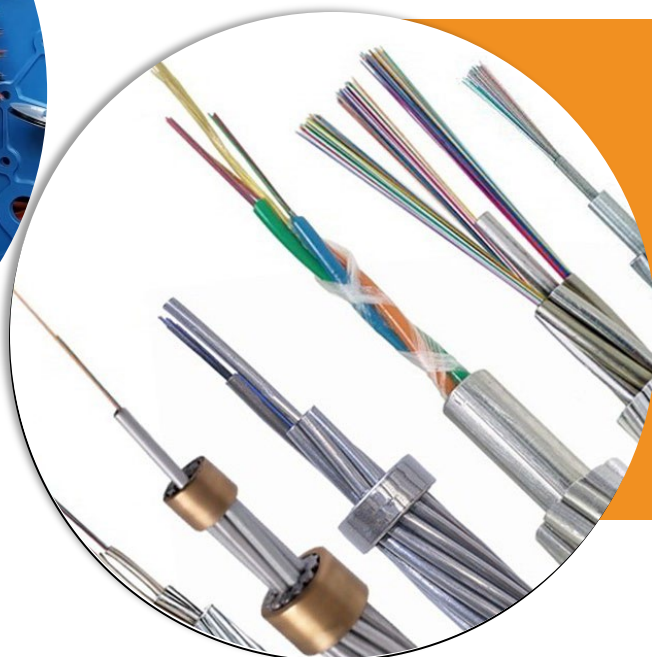
PLANT

OVERVIEW

FINAL CONDUCTOR STRANDING

IMPORTANT RAW MATERIALS & ITS SOURCES

- 37/61/89 strand transmission & 7/19 strand distribution conductor & GSW core wire.
- Stranding drawn/aged wire and steel core together to form stranded conductor as per requisite technical specification.
- Stranding HTGS wire to form steel core required for ACSR conductors as per relevant specification (intermediate production stage of ACSR conductor).





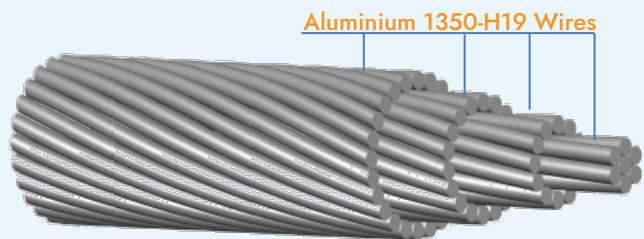
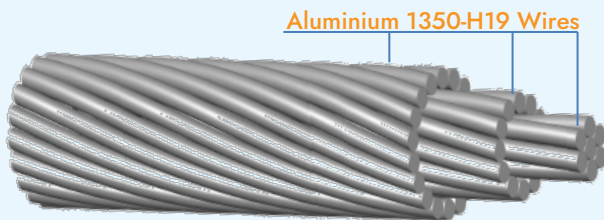
POWERLINE

ALL ALUMINIUM CONDUCTOR (AAC)

Is made up of one or more strands of hard drawn Aluminium Wires. The EC grade Aluminium Conductor has a minimum conductivity of 61.0% IACS.

CONSTRUCTION:

Aluminium 1350–H19 Wires, concentrically stranded over a central wire of Aluminium 1350–H19.



FEATURES:

- High current carrying capacity.
- Suitable for low and medium voltage lines in urban area
- Excellent resistance to corrosion
- Ideal for use in low humid and low corrosive areas

* Current capacity based on referenced conductor temperature, 0.56 m/s wind, 0 m Elevation, 0.45 Emissivity, 0.80 absorptivity, 45°C Ambient temperature, 1045 W/m² Solar radiation.

ALL ALUMINIUM CONDUCTORS (AAC)

IS 398 Part-I



NOMINAL ALUMINIUM AREA	SECTIONAL AREA	STRANDING		DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
		NO. OF ALUMINIUM WIRES	INDIVIDUAL WIRE DIAMETER					@ 75°C	@ 85°C
(MM ²)	(MM ²)	(NO.)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
25	26.85	7	2.21	6.63	74	4.52	1.0960	109	129
50	52.83	7	3.10	9.30	145	8.25	0.5525	163	196
100	106.00	7	4.39	13.17	290	15.96	0.2752	247	300
150	150.90	19	3.18	15.90	415	23.28	0.1942	303	372
240	237.60	19	3.99	19.95	654	35.74	0.1235	394	488
300	322.70	19	4.65	23.25	888	48.74	0.0911	468	586

ALL ALUMINIUM CONDUCTORS (AAC)

BS 215 Part-I

NOMINAL ALUMINIUM AREA	SECTIONAL AREA	STRANDING		DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
		NO. OF ALUMINIUM WIRES	INDIVIDUAL WIRE DIAMETER					@ 75°C	@ 85°C
(MM ²)	(MM ²)	(NO.)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
22	23.33	7	2.06	6.18	64.0	3.99	1.2270	101	120
50	52.83	7	3.10	9.30	145.0	8.28	0.5419	165	198
60	63.55	7	3.40	10.20	174.0	9.90	0.4505	184	222
100	106.00	7	4.39	13.17	290.0	16.00	0.2702	249	303
150	157.60	19	3.25	16.25	434.0	25.70	0.1825	314	385
200	213.20	19	3.78	18.90	587.0	32.40	0.1349	374	462
250	265.70	19	4.22	21.10	731.0	40.40	0.1083	424	527
300	322.70	19	4.65	23.25	888.0	48.75	0.0892	473	592
400	415.20	37	3.78	26.46	1145.0	63.10	0.0694	544	687

ALL ALUMINIUM CONDUCTORS (AAC)

NBR 7271



CODE NAME	NOMINAL AREA	STRANDING		DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
		NO. OF ALUMINIUM WIRES	INDIVIDUAL WIRE DIAMETER					@ 75°C	@ 85°C
	(MM ²)	(NO.)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
Peachbell	13.21	7	1.55	4.65	36.4	2.50	2.1755	72	85
Rose	21.12	7	1.96	5.88	58.2	3.91	1.3606	95	113
Lily	26.61	7	2.20	6.60	73.4	4.85	1.0799	109	130
Iris	33.54	7	2.47	7.41	92,5	5.99	0.8567	126	150
Pansy	42.49	7	2.78	8.34	117, 1	7.30	0.6763	145	173
Poppy	53.52	7	3.12	9.36	147.6	8.84	0.5369	166	199
ASTER	67.35	7	3.50	10.50	185.7	11.12	0.4267	190	229
Phlox	84.91	7	3.93	11.79	234.1	13.45	0.3384	218	264
Oxlip	107.41	7	4.42	13.26	296.1	17.01	0.2675	250	305
Sneezewort	126.67	7	4.80	14.40	349.2	20.06	0.2269	276	337
Valerian	126.37	19	2.91	14.55	348.4	20.68	0.2274	276	337
Daisy	135.25	7	4.96	14.88	372.9	21.42	0.2125	287	350
Laurel	135.20	19	3.01	15.05	372.8	22.13	0.2125	287	351
Peoni	151.85	19	3.19	15.95	418.7	24.29	0.1892	307	377
Tulip	170.48	19	3.38	16.90	470.0	27.27	0.1686	328	404
Daffodil	177.62	19	3.45	17.25	489.7	28.41	0.1618	336	414
Canna	202.09	19	3.68	18.40	557.2	31.76	0.1422	362	448
Goldentuft	228.14	19	3.91	19.55	629.0	35.01	0.1260	389	481
Cosmos	241.15	19	4.02	20.10	664.9	37.01	0.1192	401	498
Syringa	241.03	37	2.88	20.16	664.5	38.60	0.1192	401	498
Zinnia	253.30	19	4.12	20.60	698.4	38.87	0.1134	413	513
Hyacinth	252.89	37	2.95	20.65	697.2	40.50	0.1136	412	513
Dahlia	282.37	19	4.35	21.75	778.5	43.33	0.1018	439	547
Mistletoe	281.07	37	3.11	21.77	774.9	43.99	0.1022	438	546
Meadowsweet	303.18	37	3.23	22.61	835.9	47.45	0.0948	457	571
Orchid	322.24	37	3.33	23.31	888.4	50.44	0.0892	473	592
Heuchera	330.03	37	3.37	23.59	909.9	51.66	0.0871	479	601
Verbena	353.95	37	3.49	24.43	975.9	55.40	0.0812	499	626
Flag	354.45	61	2.72	24.48	977.2	57.10	0.0811	499	627
Violet	362.11	37	3.53	24.71	998.4	56.68	0.0794	505	635
Nasturtium	362.31	61	2.75	24.75	998.9	58.37	0.0793	506	635
Petunia	380.81	37	3.62	25.34	1050.0	58.56	0.0755	520	654
Cattail	380.99	61	2.82	25.38	1050.0	60.35	0.0754	520	655
Arbutus	402.14	37	3.72	26.04	1109.0	61.85	0.0715	536	675

ALL ALUMINIUM CONDUCTORS (AAC)

NBR 7271



CODE NAME	NOMINAL AREA	STRANDING		DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
		NO. OF ALUMINIUM WIRES	INDIVIDUAL WIRE DIAMETER					@ 75°C	@ 85°C
(MM ²)	(MM ²)	(NO.)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
Lilac	402.92	61	2.90	26.10	1111.0	63.82	0.0713	536	677
Anemone	444.27	37	3.91	27.37	1225.0	66.71	0.0647	566	716
Cockscomb	455.70	37	3.96	27.72	1256.0	68.42	0.0631	574	727
Snapdragon	457.44	61	3.09	27.81	1261.0	70.81	0.0628	575	729
Magnolia	483.74	37	4.08	28.56	1334.0	72.63	0.0594	593	753
Goldenrod	484.48	61	3.18	28.62	1336.0	75.00	0.0593	594	754
Hawkweed	507.74	37	4.18	29.26	1400.0	76.24	0.0566	609	775
Camelia	506.04	61	3.25	29.25	1395.0	78.34	0.0568	608	773
Bluebell	522.42	37	4.24	29.68	1440.0	78.44	0.0550	619	788
Larkspur	524.90	61	3.31	29.79	1447.0	81.25	0.0547	620	791
Marigold	563.65	61	3.43	30.87	1554.0	87.25	0.0510	644	823
Hawthorn	603.78	61	3.55	31.95	1665.0	93.46	0.0476	669	857
Narcissus	645.29	61	3.67	33.03	1779.0	98.15	0.0445	693	891
Columbine	684.55	61	3.78	34.02	1887.0	104.10	0.0420	715	921
Carnation	724.97	61	3.89	35.01	1999.0	107.70	0.0396	737	952
Gladiolus	766.55	61	4.00	36.00	2113.0	113.80	0.0375	758	982
Coreopsis	805.36	61	4.10	36.90	2220.0	119.60	0.0357	777	1009
Jessamine	885.84	61	4.30	38.70	2442.0	131.60	0.0324	816	1065
Cowslip	1010.43	91	3.76	41.36	2813.0	152.00	0.0287	866	1138
Sagebrush	1137.83	91	3.99	43.89	3168.0	167.10	0.0255	916	1212
Lupine	1266.76	91	4.21	46.31	3527.0	186.00	0.0229	962	1281
Bitterroot	1396.29	91	4.42	48.62	3887.0	205.10	0.0208	1003	1344
Trillium	1517.13	127	3.90	50.70	4224.0	222.80	0.0191	1039	1400
Bluebonnet	1776.31	127	4.22	54.86	4993.0	260.90	0.0165	1098	1498

ALL ALUMINIUM CONDUCTORS (AAC)

GOST 839



NOMINAL AREA	SECTIONAL AREA	STRANDING		DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
		NO. OF ALUMINIUM WIRES	INDIVIDUAL WIRE DIAMETER					@ 75°C	@ 85°C
(MM ²)	(MM ²)	(NO.)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
10	10.00	7	1.35	4.05	27.4	1.95	2.8631	61	72
16	15.90	7	1.70	5.10	43.0	3.02	1.8007	80	95
25	24.90	7	2.13	6.39	68.0	4.50	1.1498	105	125
35	34.30	7	2.50	7.50	94.0	5.91	0.8347	128	152
40	40.00	7	2.70	8.10	109.4	6.80	0.7157	140	167
50	49.50	7	3.00	9.00	135.0	8.20	0.5784	159	190
63	63.00	7	3.39	10.17	172.3	10.39	0.4544	183	221
70	69.30	7	3.55	10.65	189.0	11.29	0.4131	194	234
95	92.40	7	4.10	12.30	252.0	14.78	0.3114	229	278
100	100.00	19	2.59	12.95	274.9	17.00	0.2877	241	292
120	117.00	19	2.80	14.00	321.0	19.89	0.2459	260	316
125	125.00	19	2.89	14.45	343.6	21.25	0.2301	274	334
150	148.00	19	3.15	15.75	406.0	24.42	0.1944	302	371
160	160.00	19	3.27	16.35	439.8	26.40	0.1798	316	388
185	182.80	19	3.50	17.50	502.0	29.83	0.1574	342	421
200	200.00	19	3.66	18.30	549.7	32.00	0.1438	360	445
240	238.70	19	4.00	20.00	655.0	38.19	0.1205	399	494
250	250.00	19	4.09	20.47	687.1	40.00	0.1150	409	509
300	288.30	37	3.15	22.10	794.0	47.57	0.1000	444	554
315	315.00	37	3.29	23.05	867.5	51.97	0.0915	466	584
350	345.80	37	3.45	24.20	952.0	57.06	0.0833	492	617
400	389.20	37	3.66	25.60	1072.0	63.42	0.0740	525	662
450	449.10	37	3.90	27.30	1206.0	71.86	0.0642	568	719
500	500.40	37	4.15	29.10	1378.0	80.00	0.0576	603	767
550	544.00	61	3.37	30.33	1500.0	89.76	0.0529	632	806
560	560.00	37	4.39	30.73	1542.2	89.60	0.0531	632	807
600	586.80	61	3.50	31.50	1618.0	95.63	0.0491	658	842
630	630.00	61	3.63	32.67	1738.4	100.80	0.0458	683	877
650	641.70	61	3.66	32.94	1771.0	104.58	0.0450	689	885
700	691.70	61	3.80	34.20	1902.0	112.73	0.0417	717	925
710	710.00	61	3.85	34.65	1959.2	113.60	0.0406	727	939
750	747.40	61	3.95	35.60	2062.0	119.58	0.0386	747	966

ALL ALUMINIUM CONDUCTORS (AAC)

AS 1531



CODE NAME	CROSS SECTIONAL AREA	STRANDING		DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
		NO. OF ALUMINIUM WIRES	INDIVIDUAL WIRE DIAMETER					@ 75°C	@ 85°C
	(MM ²)	(NO.)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
Leo	34.36	7	2.50	7.50	94.3	5.71	0.8330	128	152
Leonids	41.58	7	2.75	8.25	113.0	6.72	0.6890	143	171
Libra	49.48	7	3.00	9.00	135.0	7.98	0.5790	159	190
Mars	77.31	7	3.75	11.30	211.0	11.80	0.3700	207	250
Mercury	111.30	7	4.50	13.50	304.0	16.90	0.2580	256	311
Moon	124.04	7	4.75	14.30	339.0	18.90	0.2320	272	332
Neptune	157.62	19	3.25	16.30	433.0	24.70	0.1830	313	385
Orion	182.80	19	3.50	17.50	503.0	28.70	0.1570	342	422
Pluto	209.85	19	3.75	18.80	576.0	31.90	0.1370	370	458
Saturn	261.54	37	3.00	21.00	721.0	42.20	0.1100	420	523
Sirius	306.94	37	3.25	22.80	845.0	48.20	0.0940	460	575
Taurus	336.69	19	4.75	23.80	924.0	51.30	0.0857	484	607
Triton	408.65	37	3.75	26.30	1120.0	62.20	0.0706	540	681
Uranus	506.04	61	3.25	29.30	1400.0	75.20	0.0572	606	771
Ursula	586.89	61	3.50	31.50	1620.0	87.30	0.0493	657	840
Venus	673.73	61	3.75	33.80	1860.0	97.20	0.0429	707	910

ALL ALUMINIUM CONDUCTORS (AAC)

IEC 61089



NOMINAL AREA	SECTIONAL AREA	STRANDING		DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
		NO. OF ALUMINIUM WIRES	INDIVIDUAL WIRE DIAMETER					@ 75°C	@ 85°C
(MM ²)	(MM ²)	(NO.)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
10	10.02	7	1.35	4.05	27.4	1.95	2.8633	61	72
16	16.08	7	1.71	5.12	43.8	3.04	1.7896	81	95
25	24.94	7	2.13	6.40	68.4	4.50	1.1453	106	125
40	40.08	7	2.70	8.09	109.4	6.80	0.7158	140	167
63	63.18	7	3.39	10.20	172.3	10.39	0.4545	183	221
100	100.10	19	2.59	12.90	274.8	17.00	0.2877	240	292
125	124.64	19	2.89	14.50	343.6	21.25	0.2302	274	335
160	159.57	19	3.27	16.40	439.8	26.40	0.1798	317	389
200	199.90	19	3.66	18.30	549.7	32.00	0.1439	360	444
250	249.63	19	4.09	20.50	687.1	40.00	0.1151	409	508
315	314.55	37	3.29	23.00	867.9	51.97	0.0916	466	583
400	399.98	37	3.71	26.00	1102.0	64.00	0.0721	533	672
450	451.11	37	3.94	27.50	1239.8	72.00	0.0641	569	720
500	500.48	37	4.15	29.00	1377.6	80.00	0.0577	603	766
560	560.04	37	4.39	30.70	1542.9	89.60	0.0515	641	819
630	631.30	61	3.63	32.60	1738.3	100.80	0.0458	683	876
710	710.14	61	3.85	34.60	1959.1	113.60	0.0407	726	938
800	801.43	61	4.09	36.80	2207.4	128.00	0.0361	773	1003
900	898.25	61	4.33	39.00	2483.3	144.00	0.0321	820	1071
1000	1000.58	61	4.57	41.10	2759.2	160.00	0.0289	863	1134
1120	1120.79	91	3.96	43.50	3093.5	179.20	0.0258	911	1204
1250	1248.78	91	4.18	46.00	3452.6	200.00	0.0231	958	1275
1400	1402.62	91	4.43	48.70	3866.9	224.00	0.0207	1005	1347
1500	1499.21	91	4.58	50.40	4143.1	240.00	0.0193	1034	1393

ALL ALUMINIUM CONDUCTORS (AAC)

EN 50182



CODE WORD	SECTIONAL AREA	STRANDING		DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
		NO. OF ALUMINIUM WIRES	INDIVIDUAL WIRE DIAMETER					@ 75°C	@ 85°C
	(MM ²)	(NO.)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
24-AL1	24.20	7	2.10	6.30	66.3	4.36	1.1787	104	123
34-AL1	34.36	7	2.50	7.50	93.9	6.01	0.8317	128	152
49-AL1	49.50	7	3.00	9.00	135.2	8.41	0.5776	159	191
66-AL1	65.80	19	2.10	10.50	180.9	11.85	0.4367	188	227
93-AL1	93.26	19	2.50	12.50	256.3	16.32	0.3081	231	280
117-AL1	117.00	19	2.80	14.00	321.5	19.89	0.2456	264	322
147-AL1	147.10	37	2.25	15.80	405.7	26.48	0.1960	301	369
182-AL1	181.60	37	2.50	17.50	500.9	31.78	0.1588	340	419
243-AL1	242.50	61	2.25	20.30	671.1	43.66	0.1193	401	498
299-AL1	299.40	61	2.50	22.50	828.5	52.40	0.0966	453	565
400-AL1	400.10	61	2.89	26.00	1107.1	68.02	0.0723	532	672
452-AL1	451.50	61	3.07	27.60	1249.3	74.50	0.0641	569	721
500-AL1	499.80	61	3.23	29.10	1382.9	82.47	0.0579	602	765
625-AL1	626.20	91	2.96	32.60	1739.7	106.45	0.0464	678	871
800-AL1	802.10	91	3.35	36.90	2228.3	132.34	0.0362	771	1001
1000-AL1	999.70	91	3.74	41.10	2777.3	159.95	0.0291	861	1130

ALL ALUMINIUM CONDUCTORS (AAC)

ASTM B231



CODE WORD	SECTIONAL AREA	STRANDING		DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
		NO. OF ALUMINIUM WIRES	INDIVIDUAL WIRE DIAMETER					@ 75°C	@ 85°C
	(MM ²)	(NO.)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
Jessamine	885.84	61	4.30	38.70	2442	132.00	0.0324	816	1065
Coreopsis	805.36	61	4.10	36.90	2216	120.00	0.0357	777	1009
Gladiolus	766.55	61	4.00	36.00	2108	114.00	0.0375	758	982
Carnation	724.97	61	3.89	35.01	1997	108.00	0.0396	737	952
Columbine	684.55	61	3.78	34.02	1884	104.00	0.0420	715	921
Narcissus	645.29	61	3.67	33.03	1774	98.10	0.0445	693	891
Hawthorn	603.78	61	3.55	31.95	1662	93.50	0.0476	669	857
Marigold	563.65	61	3.43	30.87	1553	87.30	0.0510	644	823
Bluebell	524.89	37	4.25	29.75	1441	78.80	0.0547	620	790
Hawkweed	507.74	37	4.18	29.26	1395	76.20	0.0566	609	775
Magnolia	483.74	37	4.08	28.56	1331	72.60	0.0594	593	753
Goldenrod	484.48	61	3.18	28.62	1331	75.00	0.0593	594	754
Cockscomb	455.70	37	3.96	27.72	1256	68.40	0.0631	574	727
Arbutus	402.14	37	3.72	26.04	1109	61.80	0.0755	520	654
Petunia	380.81	37	3.62	25.34	1046	58.60	0.0794	505	635
Verbena	353.95	37	3.49	24.43	976	55.40	0.0812	499	626
Heuchera	330.03	37	3.37	23.59	907	51.70	0.0871	479	601
Orchid	322.24	37	3.33	23.31	887	50.40	0.0892	473	592
Meadowsweet	303.18	37	3.23	22.61	836	47.50	0.0948	457	571
Dahlia	282.37	19	4.35	21.75	776	43.30	0.1018	439	547
Zinnia	253.30	19	4.12	20.60	697	38.90	0.1134	413	513
Cosmos	241.16	19	4.02	20.10	665	37.00	0.1192	401	498
Goldentuft	228.14	19	3.91	19.55	628	35.00	0.1260	389	481
Canna	200.99	19	3.67	18.35	555	31.60	0.1430	361	446
Daisy	135.25	7	4.96	14.88	372	21.40	0.2125	287	350
Sneezewort	126.67	7	4.80	14.40	349	20.10	0.2268	276	337
Oxlip	107.41	7	4.42	13.26	295	17.00	0.2675	250	305
Phlox	84.91	7	3.93	11.79	234	13.50	0.3384	218	264
Aster	67.35	7	3.50	10.50	186	11.10	0.4266	190	229

ALL ALUMINIUM CONDUCTORS (AAC)

CAN/CSA-C61089-11



CODE WORD	SECTIONAL AREA	STRANDING		DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
		NO. OF ALUMINIUM WIRES	INDIVIDUAL WIRE DIAMETER					@ 75°C	@ 85°C
	(MM ²)	(NO.)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
10-A1-7	10.00	7	1.35	4.05	27	2.00	2.8630	61	72
16-A1-7	16.00	7	1.71	5.12	44	3.12	1.7900	81	95
25-A1-7	25.00	7	2.13	6.40	69	4.75	1.1450	106	125
40-A1-7	40.00	7	2.70	8.09	110	7.20	0.7159	140	167
63-A1-7	63.00	7	3.39	10.20	173	10.70	0.4545	183	221
100-A1-19	100.00	19	2.59	12.90	275	18.00	0.2877	240	292
125-A1-19	125.00	19	2.89	14.50	344	21.90	0.2302	274	335
160-A1-19	160.00	19	3.27	16.40	441	27.20	0.1798	317	389
200-A1-19	200.00	19	3.66	18.30	551	34.00	0.1439	360	444
250-A1-19	250.00	19	4.09	20.50	688	41.30	0.1151	409	508
315-A1-37	315.00	37	3.29	23.00	870	53.60	0.0916	466	583
400-A1-37	400.00	37	3.71	26.00	1104	68.00	0.0721	533	672
450-A1-37	450.00	37	3.94	27.50	1242	74.30	0.0641	569	720
500-A1-37	500.00	37	4.15	29.00	1380	82.50	0.0577	603	766
560-A1-37	560.00	37	4.39	30.70	1546	92.40	0.0515	641	819
630-A1-61	630.00	61	3.63	32.60	1741	107.00	0.0459	682	876
710-A1-61	710.00	61	3.85	34.60	1963	117.00	0.0407	727	938
800-A1-61	800.00	61	4.09	36.80	2211	132.00	0.0361	773	1003
900-A1-61	900.00	61	4.33	39.00	2488	149.00	0.0321	820	1071
1000-A1-61	1000.00	61	4.57	41.10	2764	165.00	0.0289	864	1134
1120-A1-91	1120.00	91	3.96	43.50	3099	185.00	0.0258	911	1204
1250-A1-91	1250.00	91	4.18	46.00	3459	206.00	0.0231	958	1274
1400-A1-91	1400.00	91	4.43	48.70	3874	231.00	0.0207	1006	1348
1500-A1-91	1500.00	91	4.58	50.40	4151	248.00	0.0193	1035	1394



POWERLINE

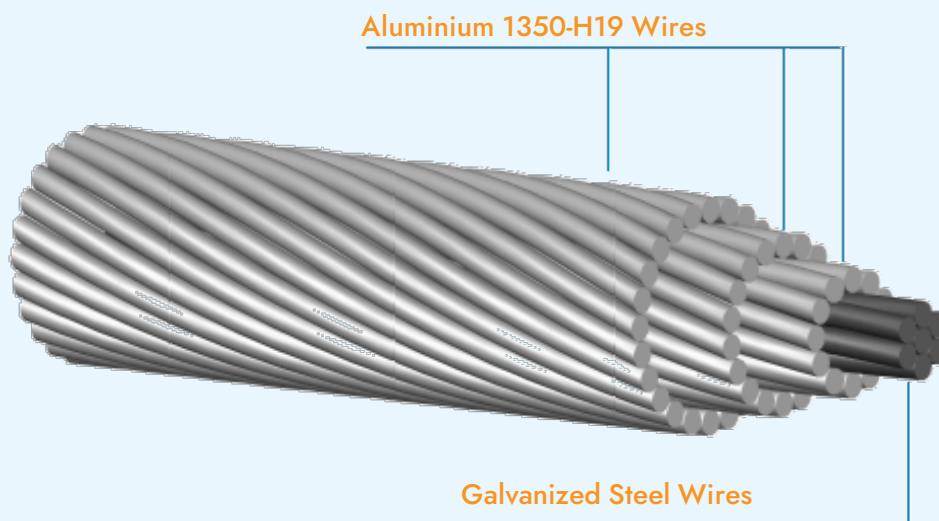
ALUMINIUM

CONDUCTOR STEEL REINFORCED (ACSR)

These are concentrically stranded conductor with one or more layers of hard drawn Aluminium wire on galvanized steel wire core which are coated with zinc with Class A / Class B Coating. The core can be single wire or stranded depending on the size of the conductors.

CONSTRUCTION:

Aluminium 1350–H19 Wires, concentrically stranded over a central wire/core of Galvanized steel



FEATURES:

- High Tensile strength
- Better sag properties
- Economic design
- Suitable for remote applications involving long spans

* Current capacity based on referenced conductor temperature, 0.56 m/s wind, 0 m Elevation, 0.45 Emissivity, 0.80 absorptivity, 45°C Ambient temperature, 1045 W/m² Solar radiation.

ALUMINIUM CONDUCTOR STEEL REINFORCED (ACSR) IS 398 (PART II)



NOMINAL AREA	SECTIONAL AREA	STRANDING				DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
		NO. OF WIRES		WIRE DIAMETER						@ 75°C	@ 85°C
		ALUMINIUM	STEEL	ALUMINIUM	STEEL						
	(MM ²)	(NO.)	(NO)	(MM)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
10	12.37	6	1	1.50	1.50	4.50	43	3.97	2.7800	59	69
18	21.12	6	1	1.96	1.96	5.88	73	6.74	1.6180	81	97
20	24.48	6	1	2.11	2.11	6.33	85	7.61	1.3940	89	106
30	36.88	6	1	2.59	2.59	7.77	128	11.12	0.9289	114	136
50	61.70	6	1	3.35	3.35	10.05	214	18.25	0.5524	155	186
80	91.97	6	1	4.09	4.09	12.27	319	26.91	0.3712	196	237
100	118.5	6	7	4.72	1.57	14.15	394	32.41	0.2792	231	282
150	194.9	30	7	2.59	2.59	18.13	726	67.34	0.1871	315	389
200	261.5	30	7	3.00	3.00	21.00	974	89.67	0.1390	374	465
400	425.2	42	7	3.50	1.96	26.88	1281	88.79	0.0731	525	664
420	484.5	54	7	3.18	3.18	28.62	1621	130.32	0.0687	546	693
520	597.0	54	7	3.53	3.53	31.77	1998	159.60	0.0560	612	783
560	591.7	42	7	4.13	2.30	31.68	1781	120.16	0.0523	631	808

ALUMINIUM CONDUCTOR STEEL REINFORCED (ACSR) IS 398 (PART V)

NOMINAL AREA	SECTIONAL AREA	STRANDING				DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
		NO. OF WIRES		WIRE DIAMETER						@ 75°C	@ 85°C
		ALUMINIUM	STEEL	ALUMINIUM	STEEL						
	(MM ²)	(NO.)	(MM)			(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
520	597.0	54	7	3.53	3.53	31.77	2004	161.20	0.0555	614	786
560	591.7	42	7	4.13	2.30	31.68	1787	120.16	0.0520	633	810
690	724.4	42	7	4.57	2.54	35.04	2187	146.87	0.0424	706	912

ALUMINIUM CONDUCTOR STEEL REINFORCED (ACSR)

BS 215 Part-2



CODE NAME	NOMINAL AREA	SECTIONAL AREA	STRANDING				DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
			NO. OF WIRES		WIRE DIAMETER						@ 75°C	@ 85°C
			ALUMINIUM	STEEL	ALUMINIUM	STEEL						
GOPHER	25	30.62	6	1	2.36	2.36	7.08	106	9.61	1.0930	103	122
WEASEL	30	36.88	6	1	2.59	2.59	7.77	128	11.45	0.9077	115	137
FERRET	40	49.48	6	1	3.00	3.00	9.00	172	15.20	0.6766	137	164
RABBIT	50	61.70	6	1	3.35	3.35	10.05	214	18.35	0.5426	156	188
HORSE	70	116.2	12	7	2.79	2.79	13.95	538	61.20	0.3936	194	237
DOG	100	118.5	6	7	4.72	1.57	14.15	394	32.70	0.2733	234	285
WOLF	150	194.9	30	7	2.59	2.59	18.13	726	69.20	0.1828	319	393
DINGO	150	167.5	18	1	3.35	3.35	16.75	506	35.70	0.1815	316	388
LYNX	175	226.2	30	7	2.79	2.79	19.53	842	79.80	0.1576	347	430
CARACAL	175	194.5	18	1	3.61	3.61	18.05	587	41.10	0.1563	344	425
PANTHER	200	261.5	30	7	3.00	3.00	21.00	974	92.25	0.1363	377	470
JAGUAR	200	222.3	18	1	3.86	3.86	19.30	671	46.55	0.1367	372	460
ZEBRA	400	484.5	54	7	3.18	3.18	28.62	1621	131.90	0.0674	551	700

ALUMINIUM CONDUCTOR STEEL REINFORCED (ACSR)

GOST 839



NOMINAL AREA	SECTIONAL AREA	STRANDING				DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
		NO. OF WIRES		WIRE DIAMETER						@ 75°C	@ 85°C
		ALUMINIUM	STEEL	ALUMINIUM	STEEL						
	(MM ²)	(NO.)	(NO)	(MM)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
10/1.8	10.6/1.77	6	1	1.50	1.50	4.50	43	4.09	2.7064	60	70
16/2.7	16/2.69	6	1	1.85	1.85	5.60	65	6.22	1.7818	77	91
25/4.2	24.9/4.15	6	1	2.30	2.30	6.90	100	9.30	1.1521	100	119
35/6.2	36.9/6.15	6	1	2.80	2.80	8.40	148	13.52	0.7774	126	151
40/6.7	40/6.7	6	1	2.91	2.91	8.74	161	14.40	0.7172	132	158
50/8.0	48.2/8.04	6	1	3.20	3.20	9.60	195	17.11	0.5951	148	178
63/10.5	63/10.5	6	1	3.66	3.66	10.97	254	21.63	0.4553	173	209
70/11	68/11.3	6	1	3.80	3.80	11.40	276	24.13	0.4218	181	219
70/72	68.4 /72.2	18	19	2.20	2.20	15.40	755	96.83	0.4194	191	234
95/16	95.4/15.9	6	1	4.50	4.50	13.50	385	33.37	0.3007	221	269
95/141	91.2/141	24	37	2.20	2.20	19.80	1357	180.78	0.3146	230	285
100/16.7	100/16.7	6	1	4.61	4.61	13.82	403	34.33	0.2868	227	277
120/19	118/18.8	26	7	2.40	1.85	15.20	471	41.52	0.2440	268	328
120/27	114/26.6	30	7	2.20	2.20	15.40	528	49.47	0.2531	264	323
125/6.9	125/6.9	18	1	2.97	2.97	14.85	398	29.17	0.2304	275	336
125/20.4	125/20.4	26	7	2.47	1.92	15.67	504	45.69	0.2308	277	339
150/19	148/18.8	24	7	2.80	1.85	16.80	554	46.31	0.2046	298	366
150/24	149/24.2	26	7	2.70	2.10	17.10	599	52.28	0.2039	299	368
150/34	147/34.3	30	7	2.50	2.50	17.50	675	62.64	0.2061	299	368
160/8.9	160/8.9	18	1	3.36	3.36	16.82	509	36.18	0.1800	317	390
160/26.1	160/26.1	26	7	2.80	2.18	17.73	645	57.69	0.1803	320	394
185/24	187/24.2	24	7	3.15	2.10	18.90	705	58.08	0.1540	349	432
185/29	181/29	26	7	2.98	2.30	18.80	728	62.06	0.1591	344	425
185/43	185/43.1	30	7	2.80	2.80	19.60	846	77.77	0.1559	349	433
185/128	187/128	54	37	2.10	2.10	23.10	1525	183.82	0.1543	360	450
200/11.1	200/11.1	18	1	3.76	3.76	18.81	637	44.22	0.1440	361	446
200/32.6	200/32.6	26	7	3.13	2.43	19.82	806	70.13	0.1442	364	451
205/27	205/26.6	24	7	3.30	2.20	19.80	774	63.74	0.1407	368	456
240/32	244/31.7	24	7	3.60	2.40	21.60	921	75.05	0.1182	407	507
240/39	236/38.6	26	7	3.40	2.65	21.60	952	80.90	0.1222	400	499
240/56	241/56.3	30	7	3.20	3.20	22.40	1106	98.25	0.1197	407	508
300/39	301/38.6	24	7	4.00	2.65	24.00	1132	90.57	0.0958	458	575
300/48	295/47.8	26	7	3.80	2.95	24.10	1186	100.62	0.0978	454	570
300/66	288.5/65.8	30	19	3.50	2.10	24.50	1313	117.52	0.10000	450	565

ALUMINIUM CONDUCTOR STEEL REINFORCED (ACSR)

GOST 839



NOMINAL AREA	SECTIONAL AREA	STRANDING				DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
		NO. OF WIRES		WIRE DIAMETER						@ 75°C	@ 85°C
		ALUMINIUM	STEEL	ALUMINIUM	STEEL						
	(MM ²)	(NO.)	(NO)	(MM)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
300/67	288.5/67.3	30	7	3.50	3.50	24.50	1323	126.27	0.1000	450	565
300/204	298/204	54	37	2.65	2.65	29.20	2428	284.58	0.0968	469	596
315/21.8	315/21.8	45	7	2.99	1.99	23.83	1039	79.03	0.0917	462	579
315/51.3	315/51.3	26	7	3.93	3.05	24.87	1269	106.83	0.0916	471	592
330/30	335/29.1	48	7	2.98	2.30	24.80	1152	88.85	0.0861	479	602
330/43	332/43.1	54	7	2.80	2.80	25.20	1255	103.78	0.0869	478	602
400/27.7	400/27.7	45	7	3.36	2.24	26.91	1320	98.36	0.0722	529	668
400/51.9	400/51.9	54	7	3.07	3.07	27.64	1510	123.04	0.0722	530	672
400/18	381/18.8	42	7	3.40	1.85	26.00	1199	85.60	0.0758	514	648
400/22	394/22	76	7	2.57	2.00	26.60	1261	95.12	0.0733	530	670
400/51	394/51.1	54	7	3.05	3.05	27.50	1490	120.48	0.0733	526	666
400/64	390/63.5	26	7	4.37	3.40	27.70	1572	129.18	0.0741	531	672
400/93	406/93.2	30	19	4.15	2.50	29.10	1851	173.72	0.0711	546	693
450/31.1	450/31.1	45	7	3.57	2.38	28.55	1485	107.47	0.0646	563	714
450/58.3	450/58.3	54	7	3.26	3.26	29.32	1698	138.42	0.0642	566	720
450/56	434/56.3	54	7	3.20	3.20	28.80	1640	131.37	0.0666	555	705
500/34.6	500/34.6	45	7	3.76	2.51	30.09	1650	119.41	0.0577	598	763
500/64.8	500/64.8	54	7	3.43	3.43	30.90	1887	153.80	0.0578	600	766
500/26	502/26.6	42	7	3.90	2.20	30.00	1592	112.55	0.0575	599	763
500/27	481/26.6	76	7	2.84	2.20	29.40	1537	112.19	0.0600	593	754
500/64	490/63.5	54	7	3.40	3.40	30.60	1852	148.26	0.0588	594	759
500/204	496/204	90	37	2.65	2.65	34.50	2979	319.61	0.0580	608	783
500/336	490/336	54	61	3.40	2.65	37.50	4005	466.65	0.0588	617	802
550/71	549/71.2	54	7	3.60	3.60	32.40	2076	166.16	0.0526	632	810
560/38.7	560/38.7	45	7	3.98	2.65	31.84	1848	133.74	0.0515	637	815
560/70.9	560/70.9	54	19	3.63	2.18	32.70	2102	172.59	0.0516	638	819
600/72	580/72.2	54	19	3.70	2.20	33.20	2170	183.84	0.0498	651	836
630/43.6	630/43.6	45	7	4.22	2.81	33.79	2079	150.45	0.0458	678	873
630/79.8	630/79.8	54	19	3.85	2.31	34.69	2365	191.77	0.0459	680	877
650/79	634/78.9	96	19	2.90	2.30	34.70	2372	200.45	0.0456	691	892
700/86	687/85.9	96	19	3.02	2.40	36.20	2575	217.78	0.0420	722	936
710/49.1	710/49.1	45	7	4.48	2.99	35.86	2342	169.56	0.0406	723	936
710/89.9	710/89.9	54	19	4.09	2.45	36.82	2665	216.12	0.0407	725	941
750/93	748/93.2	96	19	3.15	2.50	37.70	2800	234.45	0.0386	755	982

ALUMINIUM CONDUCTOR STEEL REINFORCED (ACSR)

AS 3607



NOMINAL AREA	SECTIONAL AREA	STRANDING				DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
		NO. OF WIRES		WIRE DIAMETER						@ 75°C	@ 85°C
		ALUMINIUM	STEEL	ALUMINIUM	STEEL						
	(MM ²)	(NO.)	(NO)	(MM)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
34	34.36	6	1	2.50	2.50	7.50	119	10.50	0.9750	110	131
42	41.58	6	1	2.75	2.75	8.30	144	12.60	0.8050	124	148
49	49.48	6	1	3.00	3.00	9.00	171	14.90	0.6770	137	164
77	77.31	6	1	3.75	3.75	11.30	268	22.70	0.4330	178	216
120	120.4	6	7	4.75	1.60	14.30	402	33.40	0.2710	235	287
182	181.6	30	7	2.50	2.50	17.50	677	63.50	0.1960	306	377
262	261.5	30	7	3.00	3.00	21.00	973	90.40	0.1360	378	470
307	306.9	30	7	3.25	3.25	22.80	1140	105.00	0.1160	414	518
356	356.0	30	7	3.50	3.50	24.50	1320	122.00	0.1000	450	565
431	431.2	54	7	3.00	3.00	27.00	1440	119.00	0.0758	516	653
506	506.0	54	7	3.25	3.25	29.30	1690	137.00	0.0646	564	718
587	586.9	54	7	3.50	3.50	31.50	1960	159.00	0.0557	612	783
672	672.0	54	19	3.75	2.25	33.80	2240	178.00	0.0485	660	850
17	16.84	3	4	1.75	1.75	5.30	95	12.70	3.2500	56	67
34	34.36	3	4	2.50	2.50	7.50	195	24.40	1.5900	86	103
49	49.48	4	3	3.00	3.00	9.00	243	28.30	0.8970	119	143
77	77.31	4	3	3.75	3.75	11.30	380	43.90	0.5730	155	188

ALUMINIUM CONDUCTOR STEEL REINFORCED (ACSR) IEC 61089 - TYPE A1/S1A



CODE NAME	SECTIONAL AREA	STRANDING				DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
		NO. OF WIRES		WIRE DIAMETER						@ 75°C	@ 85°C
		ALUMINIUM	STEEL	ALUMINIUM	STEEL						
	(MM ²)	(NO.)	(NO)	(MM)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
16	18.7	6	1	1.84	1.84	5.53	65	6.08	1.7934	76	90
25	29.2	6	1	2.30	2.30	6.91	101	9.13	1.1478	100	119
40	46.7	6	1	2.91	2.91	8.74	162	14.40	0.7174	132	158
63	73.5	6	1	3.66	3.66	11.00	254	21.63	0.4555	173	209
100	117.0	6	1	4.61	4.61	13.80	404	34.33	0.2869	227	277
125	132.0	18	1	2.97	2.97	14.90	398	29.17	0.2304	275	336
125	145.0	26	7	2.47	1.92	15.70	504	45.69	0.2310	277	339
160	169.0	18	1	3.36	3.36	16.80	509	36.18	0.1800	317	390
160	186.0	26	7	2.80	2.18	17.70	645	57.69	0.1805	320	394
200	211.0	18	1	3.76	3.76	18.80	637	44.22	0.1440	361	446
200	233.0	26	7	3.13	2.43	19.80	806	70.13	0.1444	363	451
250	275.0	22	7	3.80	2.11	21.60	881	68.72	0.1154	412	513
250	291.0	26	7	3.50	2.72	22.20	1008	87.67	0.1155	413	516
315	337.0	45	7	2.99	1.99	23.90	1040	79.03	0.0917	462	580
315	366.0	26	7	3.93	3.05	24.90	1270	106.83	0.0917	471	592
400	428.0	45	7	3.36	2.24	26.90	1320	98.36	0.0722	529	668
400	452.0	54	7	3.07	3.07	27.60	1510	123.04	0.0723	530	671
450	481.0	45	7	3.57	2.38	28.50	1485	107.47	0.0642	564	716
450	508.0	54	7	3.26	3.26	29.30	1699	138.42	0.0643	566	720
500	535.0	45	7	3.76	2.51	30.10	1650	119.41	0.0578	598	762
500	565.0	54	7	3.43	3.43	30.90	1888	153.80	0.0578	600	766
560	599.0	45	7	3.98	2.65	31.80	1848	133.74	0.0516	636	814
560	631.0	54	19	3.63	2.18	32.70	2103	172.59	0.0516	638	819
630	674.0	45	7	4.22	2.81	33.80	2079	150.45	0.0459	678	872
630	710.0	54	19	3.85	2.31	34.70	2366	191.77	0.0459	680	877
710	759.0	45	7	4.48	2.99	35.90	2343	169.56	0.0407	722	935
710	800.0	54	19	4.09	2.45	36.80	2667	216.12	0.0407	725	941
800	835.0	72	7	3.76	2.51	37.60	2480	167.41	0.0361	776	1010
800	867.0	84	7	3.48	3.48	38.30	2733	205.33	0.0362	778	1014
800	901.0	54	19	4.34	2.61	39.10	3005	243.52	0.0362	771	1007
900	939.0	72	7	3.99	2.66	39.90	2790	188.33	0.0321	824	1079
900	975.0	84	7	3.69	3.69	40.60	3074	226.50	0.0322	827	1083
1000	1043.0	72	7	4.21	2.80	42.10	3100	209.26	0.0289	869	1143
1120	1167.0	72	19	4.45	1.78	44.50	3465	234.53	0.0258	917	1215
1120	1211.0	84	19	4.12	2.47	45.30	3812	283.17	0.0258	922	1224
1250	1352.0	84	19	4.35	2.61	47.90	4254	316.04	0.0232	970	1296
1250	1303.0	72	19	4.70	1.88	47.00	3867	261.75	0.0231	966	1288

ALUMINIUM CONDUCTOR STEEL REINFORCED (ACSR) IEC 61089 - TYPE A1/S1B



CODE NAME	SECTIONAL AREA	STRANDING				DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
		NO. OF WIRES		WIRE DIAMETER						@ 75°C	@ 85°C
		ALUMINIUM	STEEL	ALUMINIUM	STEEL						
	(MM ²)	(NO.)	(NO)	(MM)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
16	18.7	6	1	1.84	1.84	5.53	65	5.89	1.7934	76	90
25	29.2	6	1	2.30	2.30	6.91	101	8.83	1.1478	100	119
40	46.7	6	1	2.91	2.91	8.74	162	13.93	0.7174	132	158
63	73.5	6	1	3.66	3.66	11.00	254	20.58	0.4555	173	209
100	117.0	6	1	4.61	4.61	13.80	404	32.67	0.2869	227	277
125	132.0	18	1	2.97	2.97	14.90	398	28.68	0.2304	275	336
125	145.0	26	7	2.47	1.92	15.70	504	44.27	0.2310	277	339
160	169.0	18	1	3.36	3.36	16.80	509	35.29	0.1800	317	390
160	186.0	26	7	2.80	2.18	17.70	645	55.86	0.1805	320	394
200	211.0	18	1	3.76	3.76	18.80	637	43.11	0.1440	361	446
200	233.0	26	7	3.13	2.43	19.80	806	67.85	0.1444	363	451
250	275.0	22	7	3.80	2.11	21.60	881	67.01	0.1154	412	513
250	291.0	26	7	3.50	2.72	22.20	1008	84.82	0.1155	413	516
315	337.0	45	7	2.99	1.99	23.90	1040	77.51	0.0917	462	580
315	366.0	26	7	3.93	3.05	24.90	1270	101.70	0.0917	471	592
400	428.0	45	7	3.36	2.24	26.90	1320	96.42	0.0722	529	668
400	452.0	54	7	3.07	3.07	27.60	1510	117.85	0.0723	530	671
450	481.0	45	7	3.57	2.38	28.50	1485	105.29	0.0642	564	716
450	508.0	54	7	3.26	3.26	29.30	1699	132.58	0.0643	566	720
500	535.0	45	7	3.76	2.51	30.10	1650	116.99	0.0578	598	762
500	565.0	54	7	3.43	3.43	30.90	1888	147.31	0.0578	600	766
560	599.0	45	7	3.98	2.65	31.80	1848	131.03	0.0516	636	814
560	631.0	54	19	3.63	2.18	32.70	2103	167.63	0.0516	638	819
630	674.0	45	7	4.22	2.81	33.80	2079	147.40	0.0459	678	872
630	710.0	54	19	3.85	2.31	34.70	2366	186.19	0.0459	680	877
710	759.0	45	7	4.48	2.99	35.90	2343	166.12	0.0407	722	935
710	800.0	54	19	4.09	2.45	36.80	2667	209.83	0.0407	725	941
800	835.0	72	7	3.76	2.51	37.60	2480	164.99	0.0361	776	1010
800	867.0	84	7	3.48	3.48	38.30	2733	198.67	0.0362	778	1014
800	901.0	54	19	4.34	2.61	39.10	3005	236.43	0.0362	771	1007
900	939.0	72	7	3.99	2.66	39.90	2790	185.61	0.0321	824	1079
900	975.0	84	7	3.69	3.69	40.60	3074	219.00	0.0322	827	1083
1000	1043.0	72	7	4.21	2.80	42.10	3100	206.23	0.0289	869	1143
1120	1167.0	72	19	4.45	1.78	44.50	3465	231.22	0.0258	917	1215
1120	1211.0	84	19	4.12	2.47	45.30	3812	276.78	0.0258	922	1224
1250	1352.0	84	19	4.35	2.61	47.90	4254	308.91	0.0232	970	1296
1250	1303.0	72	19	4.70	1.88	47.00	3867	258.06	0.0231	966	1288

ALUMINIUM CONDUCTOR STEEL REINFORCED (ACSR) IEC 61089 - TYPE A1/S2A



CODE NAME	SECTIONAL AREA	STRANDING				DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
		NO. OF WIRES		WIRE DIAMETER						@ 75°C	@ 85°C
		ALUMINIUM	STEEL	ALUMINIUM	STEEL						
	(MM ²)	(NO.)	(NO)	(MM)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
16	18.7	6	1	1.84	1.84	5.53	65	6.45	1.7934	76	90
25	29.2	6	1	2.30	2.30	6.91	101	9.71	1.1478	100	119
40	46.7	6	1	2.91	2.91	8.74	162	15.33	0.7174	132	158
63	73.5	6	1	3.66	3.66	11.00	254	22.37	0.4555	173	209
100	117.0	6	1	4.61	4.61	13.80	404	35.50	0.2869	227	277
125	132.0	18	1	2.97	2.97	14.90	398	30.14	0.2304	275	336
125	145.0	26	7	2.47	1.92	15.70	504	48.54	0.2310	277	339
160	169.0	18	1	3.36	3.36	16.80	509	37.42	0.1800	317	390
160	186.0	26	7	2.80	2.18	17.70	645	61.34	0.1805	320	394
200	211.0	18	1	3.76	3.76	18.80	637	45.00	0.1440	361	446
200	233.0	26	7	3.13	2.43	19.80	806	74.69	0.1444	363	451
250	275.0	22	7	3.80	2.11	21.60	881	72.16	0.1154	412	513
250	291.0	26	7	3.50	2.72	22.20	1008	93.37	0.1155	413	516
315	337.0	45	7	2.99	1.99	23.90	1040	82.08	0.0917	462	580
315	366.0	26	7	3.93	3.05	24.90	1270	114.02	0.0917	471	592
400	428.0	45	7	3.36	2.24	26.90	1320	102.23	0.0722	529	668
400	452.0	54	7	3.07	3.07	27.60	1510	130.30	0.0723	530	671
450	481.0	45	7	3.57	2.38	28.50	1485	111.82	0.0642	564	716
450	508.0	54	7	3.26	3.26	29.30	1699	146.58	0.0643	566	720
500	535.0	45	7	3.76	2.51	30.10	1650	124.25	0.0578	598	762
500	565.0	54	7	3.43	3.43	30.90	1888	162.87	0.0578	600	766
560	599.0	45	7	3.98	2.65	31.80	1848	139.16	0.0516	636	814
560	631.0	54	19	3.63	2.18	32.70	2103	182.52	0.0516	638	819
630	674.0	45	7	4.22	2.81	33.80	2079	156.55	0.0459	678	872
630	710.0	54	19	3.85	2.31	34.70	2366	202.94	0.0459	680	877
710	759.0	45	7	4.48	2.99	35.90	2343	176.43	0.0407	722	935
710	800.0	54	19	4.09	2.45	36.80	2667	228.71	0.0407	725	941
800	835.0	72	7	3.76	2.51	37.60	2480	172.25	0.0361	776	1010
800	867.0	84	7	3.48	3.48	38.30	2733	214.67	0.0362	778	1014
800	901.0	54	19	4.34	2.61	39.10	3005	257.71	0.0362	771	1007
900	939.0	72	7	3.99	2.66	39.90	2790	193.78	0.0321	824	1079
900	975.0	84	7	3.69	3.69	40.60	3074	231.75	0.0322	827	1083
1000	1043.0	72	7	4.21	2.80	42.10	3100	215.31	0.0289	869	1143
1120	1167.0	72	19	4.45	1.78	44.50	3465	241.15	0.0258	917	1215
1120	1211.0	84	19	4.12	2.47	45.30	3812	295.94	0.0258	922	1224
1250	1352.0	84	19	4.35	2.61	47.90	4254	330.29	0.0232	970	1296
1250	1303.0	72	19	4.70	1.88	47.00	3867	269.14	0.0231	966	1288

ALUMINIUM CONDUCTOR STEEL REINFORCED (ACSR) IEC 61089 - TYPE A1/S2B



CODE NAME	SECTIONAL AREA	STRANDING				DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
		NO. OF WIRES		WIRE DIAMETER						@ 75°C	@ 85°C
		ALUMINIUM	STEEL	ALUMINIUM	STEEL						
	(MM ²)	(NO.)	(NO)	(MM)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
16	18.7	6	1	1.84	1.84	5.53	65	6.27	1.7934	76	90
25	29.2	6	1	2.30	2.30	6.91	101	9.42	1.1478	100	119
40	46.7	6	1	2.91	2.91	8.74	162	14.87	0.7174	132	158
63	73.5	6	1	3.66	3.66	11.00	254	21.63	0.4555	173	209
100	117.0	6	1	4.61	4.61	13.80	404	34.33	0.2869	227	277
125	132.0	18	1	2.97	2.97	14.90	398	29.65	0.2304	275	336
125	145.0	26	7	2.47	1.92	15.70	504	47.12	0.2310	277	339
160	169.0	18	1	3.36	3.36	16.80	509	36.80	0.1800	317	390
160	186.0	26	7	2.80	2.18	17.70	645	59.51	0.1805	320	394
200	211.0	18	1	3.76	3.76	18.80	637	44.22	0.1440	361	446
200	233.0	26	7	3.13	2.43	19.80	806	72.41	0.1444	363	451
250	275.0	22	7	3.80	2.11	21.60	881	70.44	0.1154	412	513
250	291.0	26	7	3.50	2.72	22.20	1008	90.52	0.1155	413	516
315	337.0	45	7	2.99	1.99	23.90	1040	80.55	0.0917	462	580
315	366.0	26	7	3.93	3.05	24.90	1270	110.43	0.0917	471	592
400	428.0	45	7	3.36	2.24	26.90	1320	100.29	0.0722	529	668
400	452.0	54	7	3.07	3.07	27.60	1510	126.67	0.0723	530	671
450	481.0	45	7	3.57	2.38	28.50	1485	109.64	0.0642	564	716
450	508.0	54	7	3.26	3.26	29.30	1699	142.50	0.0643	566	720
500	535.0	45	7	3.76	2.51	30.10	1650	121.83	0.0578	598	762
500	565.0	54	7	3.43	3.43	30.90	1888	158.33	0.0578	600	766
560	599.0	45	7	3.98	2.65	31.80	1848	136.45	0.0516	636	814
560	631.0	54	19	3.63	2.18	32.70	2103	177.56	0.0516	638	819
630	674.0	45	7	4.22	2.81	33.80	2079	153.50	0.0459	678	872
630	710.0	54	19	3.85	2.31	34.70	2366	197.36	0.0459	680	877
710	759.0	45	7	4.48	2.99	35.90	2343	172.99	0.0407	722	935
710	800.0	54	19	4.09	2.45	36.80	2667	222.42	0.0407	725	941
800	835.0	72	7	3.76	2.51	37.60	2480	169.83	0.0361	776	1010
800	867.0	84	7	3.48	3.48	38.30	2733	210.00	0.0362	778	1014
800	901.0	54	19	4.34	2.61	39.10	3005	250.61	0.0362	771	1007
900	939.0	72	7	3.99	2.66	39.90	2790	191.06	0.0321	824	1079
900	975.0	84	7	3.69	3.69	40.60	3074	226.50	0.0322	827	1083
1000	1043.0	72	7	4.21	2.80	42.10	3100	212.28	0.0289	869	1143
1120	1167.0	72	19	4.45	1.78	44.50	3465	237.84	0.0258	917	1215
1120	1211.0	84	19	4.12	2.47	45.30	3812	289.55	0.0258	922	1224
1250	1352.0	84	19	4.35	2.61	47.90	4254	323.16	0.0232	970	1296
1250	1303.0	72	19	4.70	1.88	47.00	3867	265.44	0.0231	966	1288

ALUMINIUM CONDUCTOR STEEL REINFORCED (ACSR) IEC 61089 - TYPE A1/S3A



CODE NAME	SECTIONAL AREA	STRANDING				DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
		NO. OF WIRES		WIRE DIAMETER						@ 75°C	@ 85°C
		ALUMINIUM	STEEL	ALUMINIUM	STEEL						
	(MM ²)	(NO.)	(NO)	(MM)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
16	18.7	6	1	1.84	1.84	5.53	65	6.83	1.7934	76	90
25	29.2	6	1	2.30	2.30	6.91	101	10.25	1.1478	100	119
40	46.7	6	1	2.91	2.91	8.74	162	16.20	0.7174	132	158
63	73.5	6	1	3.66	3.66	11.00	254	24.15	0.4555	173	209
100	117.0	6	1	4.61	4.61	13.80	404	38.33	0.2869	227	277
125	132.0	18	1	2.97	2.97	14.90	398	31.04	0.2304	275	336
125	145.0	26	7	2.47	1.92	15.70	504	51.39	0.2310	277	339
160	169.0	18	1	3.36	3.36	16.80	509	38.67	0.1800	317	390
160	186.0	26	7	2.80	2.18	17.70	645	64.99	0.1805	320	394
200	211.0	18	1	3.76	3.76	18.80	637	46.89	0.1440	361	446
200	233.0	26	7	3.13	2.43	19.80	806	78.93	0.1444	363	451
250	275.0	22	7	3.80	2.11	21.60	881	75.60	0.1154	412	513
250	291.0	26	7	3.50	2.72	22.20	1008	98.66	0.1155	413	516
315	337.0	45	7	2.99	1.99	23.90	1040	85.13	0.0917	462	580
315	366.0	26	7	3.93	3.05	24.90	1270	121.20	0.0917	471	592
400	428.0	45	7	3.36	2.24	26.90	1320	106.10	0.0722	529	668
400	452.0	54	7	3.07	3.07	27.60	1510	137.56	0.0723	530	671
450	481.0	45	7	3.57	2.38	28.50	1485	115.87	0.0642	564	716
450	508.0	54	7	3.26	3.26	29.30	1699	154.75	0.0643	566	720
500	535.0	45	7	3.76	2.51	30.10	1650	128.74	0.0578	598	762
500	565.0	54	7	3.43	3.43	30.90	1888	171.94	0.0578	600	766
560	599.0	45	7	3.98	2.65	31.80	1848	144.19	0.0516	636	814
560	631.0	54	19	3.63	2.18	32.70	2103	192.45	0.0516	638	819
630	674.0	45	7	4.22	2.81	33.80	2079	162.21	0.0459	678	872
630	710.0	54	19	3.85	2.31	34.70	2366	213.32	0.0459	680	877
710	759.0	45	7	4.48	2.99	35.90	2343	182.81	0.0407	722	935
710	800.0	54	19	4.09	2.45	36.80	2667	240.41	0.0407	725	941
800	835.0	72	7	3.76	2.51	37.60	2480	176.74	0.0361	776	1010
800	867.0	84	7	3.48	3.48	38.30	2733	224.00	0.0362	778	1014
800	901.0	54	19	4.34	2.61	39.10	3005	270.88	0.0362	771	1007
900	939.0	72	7	3.99	2.66	39.90	2790	198.83	0.0321	824	1079
900	975.0	84	7	3.69	3.69	40.60	3074	244.50	0.0322	827	1083
1000	1043.0	72	7	4.21	2.80	42.10	3100	220.93	0.0289	869	1143
1120	1167.0	72	19	4.45	1.78	44.50	3465	247.77	0.0258	917	1215
1120	1211.0	84	19	4.12	2.47	45.30	3812	307.79	0.0258	922	1224
1250	1352.0	84	19	4.35	2.61	47.90	4254	343.52	0.0232	970	1296
1250	1303.0	72	19	4.70	1.88	47.00	3867	276.53	0.0231	966	1288

ALUMINIUM CONDUCTOR STEEL REINFORCED (ACSR) EN 50182 - TYPE A1/ST1A (Used in Austria)



CODE NAME	SECTIONAL AREA	STRANDING				DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
		NO. OF WIRES		WIRE DIAMETER						@ 75°C	@ 85°C
		ALUMINIUM	STEEL	ALUMINIUM	STEEL						
(MM ²)	(NO.)	(NO)	(MM)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)	
34-AL1/6-ST1A	40.1	6	1	2.70	2.70	8.10	138.7	12.37	0.8342	121	144
48-AL1/6-ST1A	56.3	6	1	3.20	3.20	9.60	194.8	16.81	0.5939	148	178
70-AL1/11-ST1A	81.3	26	7	1.85	1.44	11.70	282.2	26.27	0.4132	197	238
94-AL1/22-ST1A	116.2	30	7	2.00	2.00	14.00	432.5	43.17	0.3067	236	287
94-AL1 /15-ST1A	109.7	26	7	2.15	1.67	13.60	380.6	34.93	0.3060	235	286
97-AL1/34-ST1A	131.1	36	7	1.85	2.50	14.90	536.5	57.07	0.2990	241	295
122-AL1/20-ST1A	141.4	26	7	2.44	1.90	15.50	491.0	44.50	0.2376	273	334
119-AL1/42-ST1A	160.4	36	7	2.05	2.75	16.50	653.9	68.79	0.2435	272	334
128-AL1/30-ST1A	157.8	30	7	2.33	2.33	16.30	587.0	56.41	0.2260	282	346
149-AL1/24-ST1A	173.1	26	7	2.70	2.10	17.10	600.8	53.67	0.1940	307	377
150-AL1/53-ST1 A	202.4	36	7	2.30	3.10	18.50	827.1	84.29	0.1934	311	384
172-AL1/40-ST1A	211.8	30	7	2.70	2.70	18.90	788.2	74.89	0.1683	334	413
184-AL1/30-ST1A	213.6	26	7	3.00	2.33	19.00	741.0	65.27	0.1571	346	428
209-AL1/34-ST1 A	243.2	26	7	3.20	2.49	20.30	844.1	73.36	0.1381	373	463
212-AL1/49-ST1A	261.5	30	7	3.00	3.00	21.00	973.1	92.46	0.1363	377	470
243-AL1/39-ST1A	282.5	26	7	3.45	2.68	21.80	980.1	85.12	0.1188	406	507
238-AL1/82-ST1A	320.2	36	19	2.90	2.35	23.40	1305.3	134.37	0.1218	406	508
257-AL1/60-ST1A	316.5	30	7	3.30	3.30	23.10	1177.5	108.20	0.1126	421	527
304-AL1/49-ST1A	353.7	26	7	3.86	3.00	24.40	1227.3	105.09	0.0949	462	580
341-AL1/109-ST1A	450.0	78	19	2.36	2.70	27.70	1797.4	183.73	0.0848	497	629
382-AL1/49-ST1A	431.2	54	7	3.00	3.00	27.00	1442.5	121.30	0.0758	516	653
449-AL1/39-ST1A	488.2	48	7	3.45	2.68	28.70	1549.1	119.05	0.0644	564	716
562-AL1/49-ST1A	611.2	48	7	3.86	3.00	32.20	1 939.5	146.28	0.0515	637	817
679-AL1/86-ST1 A	764.5	54	19	4.00	2.40	36.00	2549.7	206.56	0.0426	708	916
1288-AL1/183-ST1A	1471.1	100	19	4.05	3.50	49.90	5001.6	407.20	0.0225	991	1331

ALUMINIUM CONDUCTOR STEEL REINFORCED (ACSR) EN 50182 - TYPE A1/ST1A (Used in Finland)



CODE NAME	SECTIONAL AREA	STRANDING				DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
		NO. OF WIRES		WIRE DIAMETER						@ 75°C	@ 85°C
		ALUMINIUM	STEEL	ALUMINIUM	STEEL						
	(MM ²)	(NO.)	(NO)	(MM)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
34-AL1/6-ST1A	39.5	6	1	2.68	2.68	8.04	136.6	12.18	0.8467	120	143
54-AL1/9-ST1A	62.4	6	1	3.37	3.37	10.11	216.1	18.64	0.5355	157	189
85-AL1 /14-ST1A	99.3	6	1	4.25	4.25	12.75	343.6	29.22	0.3367	207	251
106-AL1/25-ST1A	130.6	30	7	2.12	2.12	14.84	485.9	47.97	0.2729	253	309
152-AL1/25-ST1A	176.9	26	7	2.73	2.12	17.28	613.6	54.78	0.1898	310	382
305-AL1/39-ST1A	344.1	54	7	2.68	2.68	24.12	1151.2	96.80	0.0949	455	571
565-AL1/72-ST1A	636.6	54	19	3.65	2.19	32.85	2123.0	174.14	0.0512	641	823
42-AL1/25-ST1A	67.1	12	7	2.12	2.12	10.60	310.2	36.53	0.6817	141	170
89-AL1/52-ST1A	141.6	12	7	3.08	3.08	15.40	654.8	72.12	0.3230	218	267
93-AL1/39-ST1A	132.4	10	7	3.44	2.68	14.92	565.1	60.35	0.3102	221	271
148-AL1/67-ST1A	215.3	42	19	2.12	2.12	19.08	937.3	105.16	0.1955	307	380

ALUMINIUM CONDUCTOR STEEL REINFORCED (ACSR) EN 50182 - TYPE A1/ST1A (Used in France)

CODE NAME	SECTIONAL AREA	STRANDING				DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
		NO. OF WIRES		WIRE DIAMETER						@ 75°C	@ 85°C
		ALUMINIUM	STEEL	ALUMINIUM	STEEL						
	(MM ²)	(NO.)	(NO)	(MM)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
28-AL1/9-ST1A	37.7	9	3	2.00	2.00	8.30	151.5	16.26	1.0187	110	131
38-AL1/22-ST1A	59.7	12	7	2.00	2.00	10.00	276.1	32.70	0.7660	131	158
48-AL1/28-ST1A	75.5	12	7	2.25	2.25	11.30	349.4	41.15	0.6052	151	182
59-AL1/34-ST1A	93.3	12	7	2.50	2.50	12.50	431.4	49.48	0.4902	171	207
94-AL1/22-ST1A	116.2	30	7	2.00	2.00	14.00	432.5	43.17	0.3067	236	287
119-AL1/28-ST1A	147.1	30	7	2.25	2.25	15.80	547.4	54.03	0.2423	271	332
147-AL1/34-ST1A	181.6	30	7	2.50	2.50	17.50	675.8	64.94	0.1963	306	377
185-AL1/43-ST1A	227.8	30	7	2.80	2.80	19.60	847.7	80.54	0.1565	349	432
234-AL1/55-ST1A	288.3	30	7	3.15	3.15	22.10	1072.8	98.58	0.1236	399	498

ALUMINIUM CONDUCTOR STEEL REINFORCED (ACSR) EN 50182 - TYPE A1/ST6C (Used in France)



CODE NAME	SECTIONAL AREA	STRANDING				DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
		NO. OF WIRES		WIRE DIAMETER						@ 75°C	@ 85°C
		ALUMINIUM	STEEL	ALUMINIUM	STEEL						
	(MM ²)	(NO.)	(NO)	(MM)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
94-AL1/22-ST6C	116.2	30	7	2.00	2.00	14.00	432.5	49.32	0.3067	236	287
119-AL1/28-ST6C	147.1	30	7	2.25	2.25	15.80	547.4	61.83	0.2423	271	332
147-AL1/34-ST6C	181.6	30	7	2.50	2.50	17.50	675.8	74.22	0.1963	306	377
185-AL1/43-ST6C	227.8	30	7	2.80	2.80	19.60	847.7	92.18	0.1565	349	432
234-AL1/55-ST6C	288.3	30	7	3.15	3.15	22.10	1072.8	113.86	0.1236	399	498
222-AL1/76-ST6C	297.2	36	19	2.80	2.25	22.50	1206.8	147.22	0.1307	389	486
326-AL1/86-ST6C	411.7	32	19	3.60	2.40	26.40	1576.1	173.31	0.0889	482	609
508-AL1/105-ST6C	612.6	66	19	3.13	2.65	32.00	2226.5	231.55	0.0570	607	778
717-AL1/148-ST6C	865.4	66	19	3.72	3.15	38.10	3145.4	319.11	0.0403	732	953
957-AL1/228-ST6C	1184.5	54	37	2.80	2.80	44.70	4433.6	480.75	0.0302	864	1144

ALUMINIUM CONDUCTOR STEEL REINFORCED (ACSR) EN 50182 - TYPE A1/ST1A (Used in Germany)

CODE NAME	SECTIONAL AREA	STRANDING				DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
		NO. OF WIRES		WIRE DIAMETER						@ 75°C	@ 85°C
		ALUMINIUM	STEEL	ALUMINIUM	STEEL						
	(MM ²)	(NO.)	(NO)	(MM)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
15-AL1/3-ST1A	17.8	6	1	1.80	1.80	5.40	61.6	5.80	1.8769	74	88
24-AL1/4-ST1A	27.8	6	1	2.25	2.25	6.75	96.3	8.95	1.2012	97	116
34-AL1/6-ST1A	40.1	6	1	2.70	2.70	8.10	138.7	12.37	0.8342	121	144
44-AL1/32-ST1A	75.6	14	7	2.00	2.40	11.20	369.3	44.24	0.6574	145	175
48-AL1/8-ST1A	56.3	6	1	3.20	3.20	9.60	194.8	16.81	0.5939	148	178
51-AL1/30-ST1A	81.0	12	7	2.33	2.33	11.70	374.7	42.98	0.5644	157	190
70-AL1/11-ST1A	81.3	26	7	1.85	1.44	11.70	282.2	26.27	0.4132	197	238
94-AL1/15-ST1 A	109.7	26	7	2.15	1.67	13.60	380.6	34.93	0.3060	235	286
97-AL1/56-ST1A	152.8	12	7	3.20	3.20	16.00	706.8	77.85	0.2992	228	280

ALUMINIUM CONDUCTOR STEEL REINFORCED (ACSR) EN 50182 - TYPE A1/ST1A (Used in Germany)



CODE NAME	SECTIONAL AREA	STRANDING				DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
		NO. OF WIRES		WIRE DIAMETER						@ 75°C	@ 85°C
		ALUMINIUM	STEEL	ALUMINIUM	STEEL						
106-AL1/76-ST1A	(MM ²)	(NO.)	(NO)	(MM)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
106-AL1/76-ST1A	181.2	14	19	3.10	2.25	17.50	885.3	105.82	0.2742	242	298
122-AL1/20-ST1A	141.4	26	7	2.44	1.90	15.50	491.0	44.50	0.2376	273	334
122-AL1/71-ST1A	193.4	12	7	3.60	3.60	18.00	894.5	97.92	0.2364	262	323
128-AL1/30-ST1A	157.8	30	7	2.33	2.33	16.30	587.0	56.41	0.2260	282	346
149-AL1/24-ST1A	173.1	26	7	2.70	2.10	17.10	600.8	53.67	0.1940	307	377
172-AL1/40-ST1 A	211.8	30	7	2.70	2.70	18.90	788.2	74.89	0.1683	334	413
184-AL1/30-ST1A	213.6	26	7	3.00	2.33	19.00	741.0	65.27	0.1571	346	428
209-AL1/34-ST1A	243.2	26	7	3.20	2.49	20.30	844.1	73.36	0.1381	373	463
212-AL1/49-ST1A	261.5	30	7	3.00	3.00	21.00	973.1	92.46	0.1363	377	470
231-AL1/30-ST1A	260.8	24	7	3.50	2.33	21.00	870.9	72.13	0.1250	394	490
243-AL1/39-ST1A	282.5	26	7	3.45	2.68	21.80	980.1	85.12	0.1188	406	507
264-AL1/34-ST1A	297.7	24	7	3.74	2.49	22.40	994.4	81.04	0.1095	425	531
304-AL1/49-ST1A	353.7	26	7	3.86	3.00	24.40	1227.3	105.09	0.0949	462	580
305-AL1/39-ST1 A	344.1	54	7	2.68	2.68	24.10	1151.2	96.80	0.0949	455	571
339-AL1/30-ST1 A	369.1	48	7	3.00	2.33	25.00	1171.2	91.71	0.0852	482	606
382-AL1/49-ST1A	431.2	54	7	3.00	3.00	27.00	1442.5	121.30	0.0758	516	653
386-AL1/34-ST1A	420.1	48	7	3.20	2.49	26.70	1333.6	102.56	0.0749	518	655
434-AL1/56-ST1A	490.6	54	7	3.20	3.20	28.80	1641.3	133.59	0.0666	555	705
449-AL1/39-ST1A	488.2	48	7	3.45	2.68	28.70	1549.1	119.05	0.0644	564	716
490-AL1/64-ST1A	553.8	54	7	3.40	3.40	30.60	1852.9	150.81	0.0590	593	757
494-AL1/34-ST1A	528.4	45	7	3.74	2.49	29.90	1632.6	117.96	0.0584	594	757
511-AL1/45-ST1A	555.8	48	7	3.68	2.87	30.70	1765.3	133.31	0.0566	605	773
550-AL1/71-ST1A	620.9	54	7	3.60	3.60	32.40	2077.2	166.32	0.0526	632	810
562-AL1/49-ST1A	611.2	48	7	3.86	3.00	32.20	1939.5	146.28	0.0515	637	817
571-AL1/39-ST1A	610.6	45	7	4.02	2.68	32.20	1887.1	136.40	0.0506	643	824
653-AL1/45-ST1A	698.8	45	7	4.30	2.87	34.40	2159.9	156.18	0.0442	691	891
679-AL1/86-ST1A	764.5	54	19	4.00	2.40	36.00	2549.7	206.56	0.0426	708	916
1046-AL1/45-ST1A	1090.9	72	7	4.30	2.87	43.00	3248.2	218.92	0.0277	887	1170

ALUMINIUM CONDUCTOR STEEL REINFORCED (ACSR) EN 50182 - TYPE A1/ST1A (Used in Norway)



CODE NAME	SECTIONAL AREA	STRANDING				DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
		NO. OF WIRES		WIRE DIAMETER						@ 75°C	@ 85°C
		ALUMINIUM	STEEL	ALUMINIUM	STEEL						
(MM ²)	(NO.)	(NO)	(MM)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)	
27-AL1/9-ST1A	36.0	8	1	2.06	3.44	7.56	145.6	15.02	1.0776	105	125
38-AL1/13-ST1A	51.3	8	1	2.46	4.11	9.03	207.7	21.25	0.7557	130	155
40-AL1/7-ST1A	46.2	6	1	2.90	2.90	8.70	160.0	14.27	0.7231	132	158
52-AL1/30-ST1A	82.1	12	7	2.36	2.32	11.70	376.4	42.92	0.5501	159	193
53-AL1/19-ST1A	71.8	8	1	2.91	4.86	10.70	290.5	29.45	0.5400	158	191
56-AL1/9-ST1A	65.1	6	1	3.44	3.44	10.30	225.1	19.42	0.5139	161	194
79-AL1/46-ST1A	125.5	12	7	2.90	2.90	14.50	580.5	66.18	0.3643	203	248
80-AL1/13-ST1A	92.9	6	1	4.11	4.11	12.30	321.4	27.33	0.3600	199	241
111-AL1/19-ST1A	129.9	6	1	4.86	4.86	14.60	449.4	38.21	0.2575	242	296
112-AL1/65-ST1A	176.6	12	7	3.44	3.44	17.20	816.8	89.97	0.2589	248	305
112-AL1/18-ST1A	130.0	26	7	2.34	1.82	14.80	451.2	40.87	0.2583	259	317
151-AL1/25-ST1A	175.8	26	7	2.72	2.12	17.20	610.5	54.59	0.1912	309	380
151-AL1/35-ST1A	186.0	30	7	2.53	2.53	17.70	692.1	65.76	0.1916	310	382
191-AL1/31-ST1A	222.3	26	7	3.06	2.38	19.40	771.6	67.05	0.1510	354	439
191-AL1/45-ST1A	236.0	30	7	2.85	2.85	20.00	878.2	83.44	0.1510	356	442
239-AL1/39-ST1A	277.7	26	7	3.42	2.66	21.70	963.9	83.76	0.1209	403	502
238-AL1/56-ST1A	293.9	30	7	3.18	3.18	22.30	1093.4	100.47	0.1213	404	504
293-AL1/48-ST1 A	341.2	26	7	3.79	2.95	24.00	1184.3	101.47	0.0985	452	567
294-AL1/69-ST1A	362.1	30	7	3.53	3.53	24.70	1347.3	122.33	0.0984	454	571
381-AL1/62-ST1A	443.2	26	7	4.32	3.36	27.40	1537.9	129.25	0.0758	524	664
381-AL1/87-ST1A	467.4	30	19	4.02	2.41	28.10	1733.6	159.73	0.0760	525	666
382-AL1/49-ST1A	431.2	54	7	3.00	3.00	27.00	1442.5	121.30	0.0758	516	653
402-AL1/52-ST1A	454.5	54	7	3.08	3.08	27.70	1520.5	123.75	0.0719	532	673
476-AL1/78-ST1A	554.1	26	7	4.83	3.76	30.60	1923.6	161.72	0.0606	594	758
477-AL1/109-ST1A	585.9	30	19	4.50	2.70	31.50	2173.7	200.36	0.0606	596	762
476-AL1/62-ST1A	537.7	54	7	3.35	3.35	30.20	1798.8	146.40	0.0608	584	744
525-AL1/68-ST1A	593.6	54	7	3.52	3.52	31.70	1986.0	159.01	0.0550	617	789
565-AL1/72-ST1A	636.6	54	19	3.65	2.19	32.90	2123.0	174.14	0.0512	641	823
606-AL1/77-ST1A	682.9	54	19	3.78	2.27	34.00	2278.0	184.62	0.0477	666	858
645-AL1/82-ST1A	726.8	54	19	3.90	2.34	35.10	2423.8	196.36	0.0448	689	890
766-AL1/97 -ST1 A	863.1	54	19	4.25	2.55	38.30	2878.3	233.19	0.0377	755	983
806-AL1/102-ST1A	908.7	54	19	4.36	2.62	39.30	3031.7	245.77	0.0358	776	1013
1223-AL1/307-ST1A	1529.7	72	37	4.65	3.25	50.70	5796.3	533.27	0.0237	964	1296

ALUMINIUM CONDUCTOR STEEL REINFORCED (ACSR) EN 50182 - TYPE A1/ST5E (Used in Norway)



CODE NAME	SECTIONAL AREA	STRANDING				DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
		NO. OF WIRES		WIRE DIAMETER						@ 75°C	@ 85°C
		ALUMINIUM	STEEL	ALUMINIUM	STEEL						
	(MM ²)	(NO.)	(NO)	(MM)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
606-AL1/77-ST5E	682.9	54	19	3.78	2.27	34.00	2278.0	206.15	0.0477	666	858
766-AL1/97-ST5E	863.1	54	19	4.25	2.55	38.30	2878.3	255.51	0.0377	755	983

ALUMINIUM CONDUCTOR STEEL REINFORCED (ACSR) EN 50182 - TYPE A1/ST1A (Used in Spain)

CODE NAME	SECTIONAL AREA	STRANDING				DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
		NO. OF WIRES		WIRE DIAMETER						@ 75°C	@ 85°C
		ALUMINIUM	STEEL	ALUMINIUM	STEEL						
	(MM ²)	(NO.)	(NO)	(MM)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
27-AL1/4-ST1A	31.1	6	1	2.38	2.38	7.14	107.8	9.74	1.0736	104	124
47-AL1/8-ST1A	54.6	6	1	3.15	3.15	9.45	188.8	16.29	0.6129	145	174
67-AL1/11-ST1A	78.6	6	1	3.78	3.78	11.30	271.8	23.12	0.4256	180	218
94-AL1/22-ST1A	116.2	30	7	2.00	2.00	14.00	432.5	43.17	0.3067	236	287
119-AL1/28-ST1A	147.1	30	7	2.25	2.25	15.80	547.4	54.03	0.2423	271	332
147-AL1/34-ST1A	181.6	30	7	2.50	2.50	17.50	675.8	64.94	0.1963	306	377
242-AL1/39-ST1A	281.1	26	7	3.44	2.68	21.80	976.2	84.89	0.1195	405	505
337-AL1/44-ST1A	381.0	54	7	2.82	2.82	25.40	1274.6	107.18	0.0857	482	607
402-AL1/52-ST1A	454.5	54	7	3.08	3.08	27.70	1520.5	123.75	0.0719	532	673
485-AL1/63-ST1A	547.3	54	7	3.38	3.38	30.40	1831.1	149.04	0.0597	589	752
565-AL1/72-ST1A	636.6	54	19	3.65	2.19	32.90	2123.0	174.14	0.0512	641	823

ALUMINIUM CONDUCTOR STEEL REINFORCED (ACSR) EN 50182 - TYPE A1/ST1A (Used in Switzerland)



CODE NAME	SECTIONAL AREA	STRANDING				DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
		NO. OF WIRES		WIRE DIAMETER						@ 75°C	@ 85°C
		ALUMINIUM	STEEL	ALUMINIUM	STEEL						
(MM ²)	(NO.)	(NO)	(MM)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)	
22-AL1/4-ST1A	25.2	6	1	2.14	2.14	6.42	87.1	8.09	1.3279	92	109
30-AL1/5-ST1A	34.9	6	1	2.52	2.52	7.56	120.8	10.77	0.9576	111	133
43-AL1/7-ST1A	50.1	6	1	3.02	3.02	9.06	173.5	14.97	0.6668	138	166
60-AL1/10-ST1 A	69.7	6	1	3.56	3.56	10.70	241.1	20.50	0.4798	168	202
79-AL1 /18-ST1 A	97.3	30	7	1.83	1.83	12.80	362.1	36.14	0.3663	212	258
97-AL1/23-ST1A	119.8	30	7	2.03	2.03	14.20	445.6	43.98	0.2977	240	293
121-AL1/28-ST1A	149.7	30	7	2.27	2.27	15.90	557.1	53.54	0.2381	273	335
150-AL1/35-ST1 A	184.5	30	7	2.52	2.52	17.60	686.6	65.24	0.1932	309	380
194-AL1/45-ST1A	239.4	30	7	2.87	2.87	20.10	890.6	84.62	0.1489	359	445
212-AL1/49-ST1A	261.5	30	7	3.00	3.00	21.00	973.1	92.46	0.1363	377	470
244-AL1/57-ST1 A	301.3	30	7	3.22	3.22	22.50	1121.1	103.01	0.1183	409	511
282-AL1/66-ST1 A	347.9	30	7	3.46	3.46	24.20	1294.4	118.94	0.1025	444	557
357-AL1/46-ST1A	402.9	54	7	2.90	2.90	26.10	1348.0	113.35	0.0811	497	627
440-AL 1 /57-ST1A	496.7	54	7	3.22	3.22	29.00	1661.9	135.26	0.0658	559	710
487-AL 1/63-ST1A	550.6	54	7	3.39	3.39	30.50	1842.0	149.92	0.0593	592	755
531-AL 1/69-ST1A	600.4	54	7	3.54	3.54	31.90	2008.6	160.82	0.0544	620	794
748-AL 1/97-ST1A	845.2	96	19	3.15	2.55	38.00	2832.9	234.06	0.0387	755	982

ALUMINIUM CONDUCTOR STEEL REINFORCED (ACSR) EN 50182 - TYPE A1/ST1A (Used in Sweden)



CODE NAME	SECTIONAL AREA	STRANDING				DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
		NO. OF WIRES		WIRE DIAMETER						@ 75°C	@ 85°C
		ALUMINIUM	STEEL	ALUMINIUM	STEEL						
54-AL1/9-ST1A	(MM ²)	(NO.)	(NO)	(MM)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
54-AL1/9-ST1A	62.4	6	1	3.37	3.37	10.10	216.1	18.64	0.5355	157	189
85-AL1/14-ST1A	99.3	6	1	4.25	4.25	12.80	343.6	29.22	0.3367	207	251
135-AL1/22-ST1A	156.9	26	7	2.57	2.00	16.30	544.5	48.66	0.2141	290	355
201-AL1/33-ST1A	234.1	26	7	3.14	2.44	19.90	812.1	70.53	0.1434	365	453
283-AL1/46-ST1A	328.5	26	7	3.72	2.89	23.60	1139.6	97.56	0.1022	443	555
402-AL1/52-ST1A	454.5	54	7	3.08	3.08	27.70	1520.5	123.75	0.0719	532	673
525-AL1/68-ST1A	593.6	54	7	3.52	3.52	31.70	1986.0	159.01	0.0550	617	789
685-AL1/89-ST1A	774.2	54	7	4.02	4.02	36.20	2590.2	207.39	0.0422	711	921
806-AL1/102-ST1A	908.7	54	19	4.36	2.62	39.30	3031.7	245.77	0.0358	776	1013
563-AL1/29-ST1A	592.0	42	7	4.13	2.31	31.70	1783.7	123.47	0.0513	637	816
735-AL1/38-ST1A	772.9	42	7	4.72	2.63	36.20	2327.5	160.93	0.0393	734	952
865-AL1/44-ST1A	908.8	42	7	5.12	2.83	39.20	2733.1	188.55	0.0334	799	1043
89-AL1/52-ST1A	141.6	12	7	3.08	3.08	15.40	654.8	72.12	0.3230	218	267
117-AL1/68-ST1A	184.9	12	7	3.52	3.52	17.60	855.2	93.62	0.2473	255	314
152-AL1/89-ST1A	241.2	12	7	4.02	4.02	20.10	1115.4	122.10	0.1896	297	369
251-AL1/65-ST1A	315.6	32	7	3.16	3.43	22.90	1199.8	112.56	0.1152	416	520

ALUMINIUM CONDUCTOR STEEL REINFORCED (ACSR) EN 50182 - TYPE A1/ST1A (Used in United Kingdom)



CODE NAME	SECTIONAL AREA	STRANDING				DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
		NO. OF WIRES		WIRE DIAMETER						@ 75°C	@ 85°C
		ALUMINIUM	STEEL	ALUMINIUM	STEEL						
(MM ²)	(NO.)	(NO)	(MM)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)	
11-AL1/2-ST1A	12.4	6	1	1.50	1.50	4.50	42.8	4.14	2.7027	60	70
21-AL1/3-ST1A	24.5	6	1	2.11	2.11	6.33	84.7	7.87	1.3659	90	107
26-AL1/4-ST1A	30.6	6	1	2.36	2.36	7.08	106.0	9.58	1.0919	103	123
32-AL1/5-ST1A	36.9	6	1	2.59	2.59	7.77	127.6	11.38	0.9065	115	137
37-AL1/6-ST1A	42.8	6	1	2.79	2.79	8.37	148.1	13.21	0.7812	126	150
42-AL1/7-ST1A	49.5	6	1	3.00	3.00	9.00	171.2	15.27	0.6757	137	164
53-AL1/9-ST1A	61.7	6	1	3.35	3.35	10.10	213.5	18.42	0.5419	156	188
63-AL1/11-ST1A	73.6	6	1	3.66	3.66	11.00	254.9	21.67	0.4540	173	209
63-AL1/37-ST1A	100.1	12	7	2.59	2.59	13.00	463.0	52.79	0.4568	178	216
75-AL1/13-ST1A	87.5	6	1	3.99	3.99	12.00	302.9	25.76	0.3820	192	233
73-AL1/43-ST1A	116.2	12	7	2.79	2.79	14.00	537.3	61.26	0.3936	194	237
79-AL1/13-ST1A	92.0	6	1	4.09	4.09	12.30	318.3	27.06	0.3635	198	240
84-AL1/14-ST1 A	97.9	6	1	4.22	4.22	12.70	338.8	28.81	0.3415	205	249
95-AL1/16-ST1A	111.3	6	1	4.50	4.50	13.50	385.3	32.76	0.3003	221	269
105-AL1/17-ST1A	122.5	6	1	4.72	4.72	14.20	423.8	36.04	0.2730	234	285
105-AL1/14-ST1A	118.5	6	7	4.72	1.57	14.20	394.0	32.65	0.2733	234	285
132-AL1/20-ST1A	151.8	26	7	2.54	1.91	15.90	520.7	45.86	0.2192	285	349
132-AL1/7-ST1A	138.8	18	1	3.05	3.05	15.30	418.8	29.74	0.2188	283	347
131-AL1/31-ST1A	161.9	30	7	2.36	2.36	16.50	602.2	57.87	0.2202	286	351
158-AL1/37-ST1A	194.9	30	7	2.59	2.59	18.10	725.3	68.91	0.1829	319	393
159-AL1/9-ST1A	167.5	18	1	3.35	3.35	16.80	505.2	35.87	0.1814	316	388
183-AL1/43-ST1A	226.2	30	7	2.79	2.79	19.50	841.6	79.97	0.1576	347	430
184-AL1/10-ST1A	194.5	18	1	3.61	3.61	18.10	586.7	40.74	0.1562	345	425
212-AL1/49-ST1A	261.5	30	7	3.00	3.00	21.00	973.1	92.46	0.1363	377	470
211-AL1/12-ST1A	222.3	18	1	3.86	3.86	19.30	670.8	46.57	0.1366	372	461
238-AL1/56-ST1A	293.9	30	7	3.18	3.18	22.30	1 093.4	100.47	0.1213	404	504
264-AL1/62-ST1A	326.1	30	7	3.35	3.35	23.50	1 213.4	111.50	0.1093	428	536
324-AL1/76-ST1A	400.0	30	7	3.71	3.71	26.00	1 488.2	135.13	0.0891	481	606
375-AL1/88-ST1A	462.6	30	7	3.99	3.99	27.90	1 721.3	156.30	0.0771	521	661
374-AL1/48-ST1A	422.6	54	7	2.97	2.97	26.70	1 413.8	118.88	0.0773	511	645
382-AL1/49-ST1A	431.2	54	7	3.00	3.00	27.00	1 442.5	121.30	0.0758	516	653
430-AL1/100-ST1A	529.8	30	7	4.27	4.27	29.90	1 971.4	179.00	0.0673	562	716
429-AL1/56-ST1 A	484.5	54	7	3.18	3.18	28.60	1 620.8	131.92	0.0674	551	700
477-AL1/111-ST1A	588.5	30	7	4.50	4.50	31.50	2 189.5	198.80	0.0606	596	762
476-AL1162-ST 1A	537.7	54	7	3.35	3.35	30.20	1 798.8	146.40	0.0608	584	744
528-AL 1/69-ST1A	597.0	54	7	3.53	3.53	31.80	1 997.3	159.92	0.0547	618	792

ALUMINIUM CONDUCTOR STEEL REINFORCED (ACSR) EN 50182 - TYPE AL1/ST3D (Used in Italy)



CODE NAME	SECTIONAL AREA	STRANDING				DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
		NO. OF WIRES		WIRE DIAMETER						@ 75°C	@ 85°C
		ALUMINIUM	STEEL	ALUMINIUM	STEEL						
(MM ²)	(NO.)	(NO.)	(MM)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)	
42-AL 1 /7 -ST3D	49.5	6	1	3.00	3.00	9.00	171	14.99	0.6757	137	164
68-AL 1/39-ST3D	107.2	12	7	2.68	2.68	13.40	496	59.29	0.4266	185	225
128-AL 1/21-ST3D	148.5	26	7	2.50	1.95	15.90	516	47.63	0.2263	280	344
191-AL 1/31-ST3D	222.3	26	7	3.06	2.38	19.40	772	69.23	0.1510	354	439
212-AL 1/49-ST3D	261.5	30	7	3.00	3.00	21.00	973	90.48	0.1363	377	470
265-AL 1/43-ST3D	307.8	26	7	3.60	2.80	22.80	1068	89.76	0.1091	427	533
349-AL 1/79-ST3D	428.2	30	19	3.85	2.30	26.90	1586	151.40	0.0828	501	633
382-AL 1/49-ST3D	431.2	54	7	3.00	3.00	27.00	1443	119.32	0.0758	516	653
416-AL 1 /93-ST3D	508.9	30	19	4.20	2.50	29.30	1882	179.35	0.0696	552	702
434-AL 1/56-ST3D	490.6	54	7	3.20	3.20	28.80	1641	133.59	0.0666	555	705
520-AL 1/66-ST3D	585.3	54	19	3.50	2.10	31.50	1952	165.35	0.0556	613	784
629-AL 1/79-ST3D	707.6	54	19	3.85	2.30	34.60	2357	196.10	0.0460	679	876
748-AL 1/93-ST3D	841.4	54	19	4.20	2.50	37.70	2799	232.55	0.0386	746	969
859-AL 1/109-ST3D	967.6	54	19	4.50	2.70	40.50	3226	269.04	0.0337	800	1048
1657-AL 1/209-ST3D	1865.4	150	37	3.75	2.68	56.30	6222	517.62	0.0175	1106	1511

ALUMINIUM CONDUCTOR STEEL REINFORCED (ACSR) CAN/CSA-C61089-11 - TYPE A1/S1A



CODE NAME	SECTIONAL AREA	STRANDING				DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
		NO. OF WIRES		WIRE DIAMETER						@ 75°C	@ 85°C
		ALUMINIUM	STEEL	ALUMINIUM	STEEL						
(MM ²)	(NO.)	(NO.)	(MM)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)	
16-A1/S1A-6/1	18.7	6	1	1.84	1.84	5.53	65	6.24	1.7930	76	90
25-A1/S1A-6/1	29.2	6	1	2.30	2.30	6.91	101	9.38	1.1480	100	119
40-A1/S1A-6/1	46.7	6	1	2.91	2.91	8.74	162	14.60	0.7174	132	158
63-A1/S1A-6/1	73.5	6	1	3.66	3.66	11.00	255	22.30	0.4555	173	209
100-A1/S1A-6/1	116.7	6	1	4.61	4.61	13.80	405	34.80	0.2869	227	277
125-A1/S1A-18/1	131.9	18	1	2.97	2.97	14.90	399	29.80	0.2304	275	336
125-A1/S1A-26/7	145.4	26	7	2.47	1.92	15.70	505	46.90	0.2310	277	339
160-A1/S1A-18/1	168.9	18	1	3.36	3.36	16.80	510	37.00	0.1800	317	390
160-A1/S1A-26/7	186.1	26	7	2.80	2.18	17.70	646	58.50	0.1805	320	394
200-A1/S1A-18/1	211.1	18	1	3.76	3.76	18.80	638	45.20	0.1440	361	446
200-A1/S1A-26/7	232.6	26	7	3.13	2.43	19.80	808	71.10	0.1444	363	451
250-A1/S1A-22/7	274.6	22	7	3.80	2.11	21.60	882	70.00	0.1154	412	513
250-A1/S1A-26/7	290.7	26	7	3.50	2.72	22.20	1010	88.90	0.1155	413	516
315-A1/S1A-45/7	336.8	45	7	2.99	1.99	23.90	1042	80.60	0.0917	462	580
315-A1/S1A-26/7	366.3	26	7	3.93	3.05	24.90	1272	108.00	0.0916	471	592
400-A1/S1A-45/7	427.7	45	7	3.36	2.24	26.90	1323	100.00	0.0722	528	668
400-A1/S1A-54/7	451.9	54	7	3.07	3.07	27.60	1513	125.00	0.0723	530	671
450-A1/S1A-45/7	481.1	45	7	3.57	2.38	28.50	1488	112.00	0.0642	564	716
450-A1/S1A-54/7	508.3	54	7	3.26	3.26	29.30	1703	141.00	0.0642	566	720

ALUMINIUM CONDUCTOR STEEL REINFORCED (ACSR) CAN/CSA-C61089-11 - TYPE A1/S2A



CODE NAME	SECTIONAL AREA	STRANDING				DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
		NO. OF WIRES		WIRE DIAMETER						@ 75°C	@ 85°C
		ALUMINIUM	STEEL	ALUMINIUM	STEEL						
	(MM ²)	(NO.)	(NO.)	(MM)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
16-A1/S2A-6/1	18.7	6	1	1.84	1.84	5.53	65	6.61	1.7930	76	90
25-A1/S2A-6/1	29.2	6	1	2.30	2.30	6.91	101	9.96	1.1480	100	119
40-A1/S2A-6/1	46.7	6	1	2.91	2.91	8.74	162	15.50	0.7174	132	158
63-A1/S2A-6/1	73.5	6	1	3.66	3.66	11.00	255	23.00	0.4555	173	209
100-A1/S2A-6/1	116.7	6	1	4.61	4.61	13.80	405	36.00	0.2869	227	277
125-A1/S2A-18/1	131.9	18	1	2.97	2.97	14.90	399	30.80	0.2304	275	336
125-A1/S2A-26/7	145.4	26	7	2.47	1.92	15.70	505	49.80	0.2310	277	339
160-A1/S2A-18/1	168.9	18	1	3.36	3.36	16.80	510	38.20	0.1800	317	390
160-A1/S2A-26/7	186.1	26	7	2.80	2.18	17.70	646	62.10	0.1805	320	394
200-A1/S2A-18/1	211.1	18	1	3.76	3.76	18.80	638	46.00	0.1440	361	446
200-A1/S2A-26/7	232.6	26	7	3.13	2.43	19.80	808	75.70	0.1444	363	451
250-A1/S2A-22/7	274.6	22	7	3.80	2.11	21.60	882	73.40	0.1154	412	513
250-A1/S2A-26/7	290.7	26	7	3.50	2.72	22.20	1010	94.60	0.1155	413	516
315-A1/S2A-45/7	336.8	45	7	2.99	1.99	23.90	1042	83.70	0.0917	462	580
315-A1/S2A-26/7	366.3	26	7	3.93	3.05	24.90	1272	116.00	0.0916	471	592
400-A1/S2A-45/7	427.7	45	7	3.36	2.24	26.90	1323	104.00	0.0722	528	668
400-A1/S2A-54/7	451.9	54	7	3.07	3.07	27.60	1513	132.00	0.0723	530	671
710-A1/S2A-54/19	799.9	54	19	4.09	2.45	36.80	2672	232.00	0.0407	725	940
800-A1/S2A-72/7	834.6	72	7	3.76	2.51	37.60	2485	176.00	0.0362	776	1009
800-A1/S2A-84/7	866.7	84	7	3.48	3.48	38.30	2738	219.00	0.0362	779	1014
800-A1/S2A-54/19	901.3	54	19	4.34	2.61	39.10	3011	262.00	0.0362	772	1007
900-A1/S2A-72/7	938.9	72	7	3.99	2.66	39.90	2796	198.00	0.0321	824	1078
900-A1/S2A-84/7	975.0	84	7	3.69	3.69	40.60	3080	241.00	0.0322	827	1084
1000-A1/S2A-72/7	1043.0	72	7	4.21	2.80	42.10	3106	220.00	0.0289	868	1143
1120-A1/S2A-72/19	1167.0	72	19	4.45	1.78	44.50	3472	247.00	0.0258	917	1215
1120-A1/S2A-84/19	1211.0	84	19	4.12	2.47	45.30	3819	302.00	0.0258	922	1223
1250-A1/S2A-72/19	1303.0	72	19	4.70	1.88	47.00	3875	275.00	0.0231	965	1287
1250-A1/S2A-84/19	1352.0	84	19	4.35	2.61	47.90	4262	337.00	0.0232	971	1297

ALUMINIUM CONDUCTOR STEEL REINFORCED (ACSR) CAN/CSA-C61089-11 - TYPE A1/S3A



CODE NAME	SECTIONAL AREA	STRANDING				DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
		NO. OF WIRES		WIRE DIAMETER						@ 75°C	@ 85°C
		ALUMINIUM	STEEL	ALUMINIUM	STEEL						
(MM ²)	(NO.)	(NO.)	(MM)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)	
16-A1/S3A-6/1	18.7	6	1	1.84	1.84	5.53	65	6.99	1.7930	76	90
25-A1/S3A-6/1	29.2	6	1	2.30	2.30	6.91	101	10.50	1.1480	100	119
40-A1/S3A-6/1	46.7	6	1	2.91	2.91	8.74	162	16.40	0.7174	132	158
63-A1/S3A-6/1	73.5	6	1	3.66	3.66	11.00	255	24.80	0.2549	231	279
100-A1/S3A-6/1	116.7	6	1	4.61	4.61	13.80	405	38.80	0.2869	227	277
125-A1/S3A-18/1	131.9	18	1	2.97	2.97	14.90	399	31.70	0.2304	275	336
125-A1/S3A-26/7	145.4	26	7	2.47	1.92	15.70	505	52.60	0.2310	277	339
160-A1/S3A-18/1	168.9	18	1	3.36	3.36	16.80	510	39.50	0.1800	317	390
160-A1/S3A-26/7	186.1	26	7	2.80	2.18	17.70	646	65.80	0.1805	320	394
200-A1/S3A-18/1	211.1	18	1	3.76	3.76	18.80	638	47.90	0.1440	361	446
200-A1/S3A-26/7	232.6	26	7	3.13	2.43	19.80	808	79.90	0.1444	363	451
250-A1/S3A-22/7	274.6	22	7	3.80	2.11	21.60	882	76.90	0.1154	412	513
250-A1/S3A-26/7	290.7	26	7	3.50	2.72	22.20	1010	99.90	0.1155	413	516
315-A1/S3A-45/7	336.8	45	7	2.99	1.99	23.90	1042	86.70	0.0917	462	580
315-A1/S3A-26/7	366.3	26	7	3.93	3.05	24.90	1272	123.00	0.0917	471	592
400-A1/S3A-45/7	427.7	45	7	3.36	2.24	26.90	1323	108.00	0.0722	528	668
400-A1/S3A-54/7	451.9	54	7	3.07	3.07	27.60	1513	140.00	0.0723	530	671
450-A1/S3A-45/7	481.1	45	7	3.57	2.38	28.50	1488	120.00	0.0642	564	716
450-A1/S3A-54/7	508.3	54	7	3.26	3.26	29.30	1703	157.00	0.0643	566	720
500-A1/S3A-45/7	534.6	45	7	3.76	2.51	30.10	1653	131.00	0.0578	598	762
500-A1/S3A-54/7	564.8	54	7	3.43	3.43	30.90	1892	174.00	0.0579	600	766
560-A1/S3A-45/7	598.7	45	7	3.98	2.65	31.80	1852	147.00	0.0516	636	814
560-A1/S3A-54/19	630.9	54	19	3.63	2.18	32.70	2108	198.00	0.0517	638	819
630-A1/S3A-45/7	673.6	45	7	4.22	2.81	33.80	2083	165.00	0.0459	678	873
630-A1/S3A-54/19	709.8	54	19	3.85	2.31	34.70	2371	217.00	0.0459	680	877
710-A1/S3A-45/7	759.1	45	7	4.48	2.99	35.90	2348	186.00	0.0407	722	935
710-A1/S3A-54/19	799.9	54	19	4.09	2.45	36.80	2672	244.00	0.0407	725	940
800-A1/S3A-72/7	834.6	72	7	3.76	2.51	37.60	2485	181.00	0.0362	776	1009
800-A1/S3A-84/7	866.7	84	7	3.48	3.48	38.30	2738	228.00	0.0362	779	1014
800-A1/S3A-54/19	901.3	54	19	4.34	2.61	39.10	3011	275.00	0.0362	772	1007
900-A1/S3A-72/7	938.9	72	7	3.99	2.66	39.90	2796	203.00	0.0321	824	1078
900-A1/S3A-84/7	975.0	84	7	3.69	3.69	40.60	3080	254.00	0.0322	827	1084
1000-A1/S3A-72/7	1043.0	72	7	4.21	2.80	42.10	3106	226.00	0.0289	868	1143
1120-A1/S3A-72/19	1167.0	72	19	4.45	1.78	44.50	3472	253.00	0.0258	917	1215
1120-A1/S3A-84/19	1211.0	84	19	4.12	2.47	45.30	3819	313.00	0.0258	922	1223
1250-A1/S3A-72/19	1303.0	72	19	4.70	1.88	47.00	3875	283.00	0.0231	965	1287
1250-A1/S3A-84/19	1352.0	84	19	4.35	2.61	47.90	4262	350.00	0.0232	971	1297

ALUMINIUM CONDUCTOR STEEL REINFORCED (ACSR) CAN/CSA-C61089-11 - TYPE A1/S1A



CONDUCTOR NAME	CODE NAME	SECTIONAL AREA	STRANDING				DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
			NO. OF WIRES		WIRE DIAMETER						@ 75°C	@ 85°C
			ALUMINIUM	STEEL	ALUMINIUM	STEEL						
Wren	8-A1/S1A-6/1	9.8	6	1	1.33	1.33	4.00	34	3.31	3.4280	52	61
Warbler	11-A1/S1A-6/1	12.3	6	1	1.50	1.50	4.49	43	4.17	2.7200	59	70
Turkey	13-A1/S1A-6/1	15.5	6	1	1.68	1.68	5.04	54	5.19	2.1570	68	81
Thrush	17-A1/S1A-6/1	19.6	6	1	1.89	1.89	5.66	68	6.54	1.7110	79	93
Swan	21-A1/S1A-6/1	24.7	6	1	2.12	2.12	6.36	86	8.14	1.3570	90	107
Swallow	27-A1/S1A-6/1	31.1	6	1	2.38	2.38	7.14	108	10.00	1.0760	104	124
Sparrow	34-A1/S1A-6/1	39.2	6	1	2.67	2.67	8.01	136	12.40	0.8532	119	142
Robin	42-A1/S1A-6/1	49.5	6	1	3.00	3.00	9.00	171	15.50	0.6766	137	164
Raven	54-A1/S1A-6/1	62.4	6	1	3.37	3.37	10.10	216	18.90	0.5362	157	189
Quail	67-A1/S1A-6/1	78.7	6	1	3.78	3.78	11.30	273	23.50	0.4255	180	218
Pigeon	85-A1/S1A-6/1	99.2	6	1	4.25	4.25	12.70	344	29.60	0.3375	206	251
Penguin	107-A1/S1A-6/1	125.1	6	1	4.77	4.77	14.30	433	37.40	0.2677	237	289
Partridge	135-A1/S1A-26/7	157.2	26	7	2.57	2.00	16.30	546	50.10	0.2136	290	356
Owl	135-A1/S1A-6/7	152.7	6	7	5.36	1.79	16.10	508	42.10	0.2123	271	332
Waxwing	135-A1/S1A-18/1	142.7	18	1	3.09	3.09	15.50	431	31.20	0.2130	288	352
Piper	152-A1/S1A-30/7	187.5	30	7	2.54	2.54	17.80	697	67.80	0.1900	312	384
Ostrich	152-A1/S1A-26/7	176.8	26	7	2.73	2.12	17.30	614	56.30	0.1900	310	382
Phoebe	152-A1/S1A-18/1	160.5	18	1	3.28	3.28	16.40	485	35.10	0.1895	308	378
Oriole	170-A1/S1A-30/7	210.2	30	7	2.69	2.69	18.80	782	76.00	0.1694	333	412
Linnet	170-A1/S1A-26/7	198.2	26	7	2.89	2.25	18.30	688	62.30	0.1694	332	409
Merlin	170-A1/S1A-18/1	179.9	18	1	3.47	3.47	17.40	544	39.40	0.1690	329	405
Lark	201-A1/S1A-30/7	248.4	30	7	2.92	2.92	20.50	924	88.80	0.1434	367	455
Ibis	201-A1/S1A-26/7	234.2	26	7	3.14	2.44	19.90	813	71.60	0.1434	365	453
Chickadee	201-A1/S1A-18/1	212.6	18	1	3.77	3.77	18.90	642	45.50	0.1430	362	448
Hen	242-A1/S1A-30/7	298.1	30	7	3.20	3.20	22.40	1109	103.00	0.1195	407	508
Hawk	242-A1/S1A-26/7	281.1	26	7	3.44	2.68	21.80	974	86.00	0.1195	405	505
Toucan	242-A1/S1A-22/7	265.4	22	7	3.74	2.08	21.20	853	68.90	0.1193	404	503
Pelican	242-A1/S1A-18/1	255.1	18	1	4.13	4.13	20.70	770	54.60	0.1192	402	500
Heron	253-A1/S1A-30/7	312.5	30	7	3.28	3.28	23.00	1162	108.00	0.1140	418	523
Eagle	282-A1/S1A-30/7	347.8	30	7	3.46	3.46	24.20	1293	120.00	0.1024	444	557
Dove	282-A1/S1A-26/7	327.9	26	7	3.72	2.89	23.50	1136	100.00	0.1024	442	554
Sapsucker	282-A1/S1A-22/7	309.7	22	7	4.04	2.24	22.90	995	78.90	0.1023	441	551
Duck	307-A1/S1A-54/7	346.3	54	7	2.69	2.69	24.20	1159	101.00	0.0944	456	573

ALUMINIUM CONDUCTOR STEEL REINFORCED (ACSR) CAN/CSA-C61089-11 - TYPE A1/S1A



CONDUCTOR NAME	CODE NAME	SECTIONAL AREA	STRANDING				DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
			NO. OF WIRES		WIRE DIAMETER						@ 75°C	@ 85°C
			ALUMINIUM	STEEL	ALUMINIUM	STEEL						
Egret	322-A1/S1A-30/19	395.7	30	19	3.70	2.22	25.90	1467	141.00	0.0896	479	604
Grosbeak	322-A1/S1A-26/7	374.8	26	7	3.97	3.09	25.20	1301	111.00	0.0896	477	600
Goose	322-A1/S1A-54/7	364.1	54	7	2.76	2.76	24.80	1219	104.00	0.0897	469	590
Goldfinch	322-A1/S1A-22/7	353.9	22	7	4.32	2.40	24.50	1137	89.30	0.0895	476	597
Gull	338-A1/S1A-54/7	381.5	54	7	2.82	2.82	25.40	1277	109.00	0.0856	482	607
Redwing	363-A1/S1A-30/19	445.2	30	19	3.92	2.35	27.50	1650	154.00	0.0796	512	648
Starling	363-A1/S1A-26/7	421.6	26	7	4.21	3.28	26.70	1463	125.00	0.0796	510	644
Crow	363-A1/S1A-54/7	409.4	54	7	2.92	2.92	26.30	1370	117.00	0.0798	502	633
Mallard	403-A1/S1A-30/19	658.0	30	19	4.13	4.13	37.20	3113	347.00	0.0717	559	725
Drake	403-A1/S1A-26/7	468.4	26	7	4.44	3.45	28.10	1626	139.00	0.0717	541	686
Condor	403-A1/S1A-54/7	455.0	54	7	3.08	3.08	27.70	1523	126.00	0.0718	532	674
Macaw	403-A1/S1A-42/7	423.5	42	7	3.49	1.94	26.80	1276	92.70	0.0717	530	670
Crane	443-A1/S1A-54/7	500.5	54	7	3.23	3.23	29.10	1675	138.00	0.0653	561	713
Canary	456-A1/S1A-54/7	515.2	54	7	3.28	3.28	29.50	1725	143.00	0.0634	570	726
Cardinal	483-A1/S1A-54/7	546.2	54	7	3.38	3.38	30.40	1829	151.00	0.0598	589	751
Phoenix	483-A1/S1A-42/7	509.5	42	7	3.83	2.13	29.50	1541	110.00	0.0598	587	747
Curlew	524-A1/S1A-54/7	591.4	54	7	3.51	3.51	31.60	1979	164.00	0.0552	615	787
Snowbird	524-A1/S1A-42/7	550.5	42	7	3.98	2.21	30.50	1658	118.00	0.0552	612	781
Finch	564-A1/S1A-54/19	635.5	54	19	3.65	2.19	32.80	2122	180.00	0.0513	641	822
Beaumont	564-A1/S1A-42/7	593.1	42	7	4.13	2.30	31.70	1787	126.00	0.0512	638	816
Grackle	604-A1/S1A-54/19	681.1	54	19	3.77	2.27	34.00	2275	190.00	0.0479	665	856
Pheasant	645-A1/S1A-54/19	726.2	54	19	3.90	2.34	35.10	2425	200.00	0.0449	688	889
Scissortail	645-A1/S1A-42/7	677.8	42	7	4.42	2.46	33.90	2042	144.00	0.0448	685	882
Martin	685-A1/S1A-54/19	771.5	54	19	4.02	2.41	36.20	2575	212.00	0.0422	711	921
—	685-A1/S1A-42/7	720.0	42	7	4.56	2.53	34.90	2169	153.00	0.0422	707	914
Plover	725-A1/S1A-54/19	816.9	54	19	4.13	2.48	37.20	2727	224.00	0.0399	733	952
—	725-A1/S1A-42/7	762.6	42	7	4.69	2.61	36.00	2298	162.00	0.0399	729	944
Parrot	765-A1/S1A-54/19	862.4	54	19	4.25	2.55	38.20	2879	237.00	0.0378	754	982
—	765-A1/S1A-42/7	804.6	42	7	4.82	2.67	36.90	2423	171.00	0.0378	750	974
Falcon	806-A1/S1A-54/19	908.1	54	19	4.36	2.62	39.30	3033	250.00	0.0359	775	1012
-	805-A1/S1A-48/7	876.9	48	7	4.62	3.60	38.50	2785	211.00	0.0358	772	1007
-	806-A1/S1A-72/7	840.6	72	7	3.77	2.52	37.80	2503	173.00	0.0359	779	1013

ALUMINIUM CONDUCTOR STEEL REINFORCED (ACSR) CAN/CSA-C61089-11 - TYPE A1/S1A



CONDUCTOR NAME	CODE NAME	SECTIONAL AREA	STRANDING				DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
			NO. OF WIRES		WIRE DIAMETER						@ 75°C	@ 85°C
			ALUMINIUM	STEEL	ALUMINIUM	STEEL						
		(MM ²)	(NO.)	(NO.)	(MM)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
Bantam	7-A1/S1A-3/4	15.5	3	4	1.68	1.68	5.04	88	11.70	4.3190	48	57
Magpie	11-A1/S1A-3/4	24.7	3	4	2.12	2.12	6.35	141	18.50	2.7130	64	76
Shrike	17-A1/S1A-3/4	39.2	3	4	2.67	2.67	8.02	223	28.60	1.7050	84	101
Snipe	27-A1/S1A-3/4	62.5	3	4	3.37	3.37	10.10	355	43.80	1.0720	111	134
Loon	34-A1/S1A-3/4	78.6	3	4	3.78	3.78	11.30	447	54.90	0.8512	127	154
Grouse	41-A1/S1A-8/1	54.7	8	1	2.54	4.24	9.32	221	22.80	0.7064	135	162
Petrel	52-A1/S1A-12/7	81.7	12	7	2.34	2.34	11.70	377	43.90	0.5551	159	192
Leghorn	68-A1/S1A-12/7	108.0	12	7	2.69	2.69	13.40	498	57.60	0.4198	187	227
Guinea	81-A1/S1A-12/7	127.4	12	7	2.92	2.92	14.60	588	67.50	0.3554	206	252
Dotterel	90-A1/S1A-12/7	141.8	12	7	3.08	3.08	15.40	654	72.60	0.3195	219	268
Dorking	97-A1/S1A-12/7	153.0	12	7	3.20	3.20	16.00	705	78.40	0.2962	229	281
Auk	103-A1/S1A-8/7	130.7	8	7	4.05	2.25	14.80	500	49.50	0.2784	233	285
Brahma	103-A1/S1A-16/19	194.8	16	19	2.86	2.48	18.10	1002	123.00	0.2781	241	298
Cochin	107-A1/S1A-12/7	169.5	12	7	3.37	3.37	16.90	782	86.90	0.2674	243	299

ALUMINIUM CONDUCTOR STEEL REINFORCED (ACSR) CAN/CSA-C61089-11 - TYPE A1/S1A (Canadian Diameter-Based Sizes)



CONDUCTOR NAME	CODE NAME	SECTIONAL AREA	STRANDING				DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
			NO. OF WIRES		WIRE DIAMETER						@ 75°C	@ 85°C
			ALUMINIUM	STEEL	ALUMINIUM	STEEL						
-	237-A1/S1A-26/7	276.1	(NO.)	(NO.)	(MM)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
-	251-A1/S1A-22/7	275.5	26	7	3.41	2.65	21.60	958	84.40	0.1216	401	500
-	264-A1/S1A-18/1	278.5	22	7	3.81	2.12	21.60	885	70.30	0.1150	412	514
-	264-A1/S1A-18/1	278.5	18	1	4.32	4.32	21.60	841	59.70	0.1092	423	527
Abitibi	264-A1/S1A-18/7	275.2	18	7	4.32	1.44	21.60	816	56.90	0.1092	423	527
-	266-A1/S1A-26/7	309.5	26	7	3.61	2.81	22.90	1075	94.70	0.1085	428	535
-	282-A1/S1A-22/7	309.6	22	7	4.04	2.24	22.90	994	78.80	0.1023	441	551
-	295-A1/S1A-18/1	311.7	18	1	4.57	4.57	22.90	942	66.80	0.0976	451	564
-	297-A1/S1A-18/7	309.2	18	7	4.58	1.52	22.90	917	63.80	0.0971	452	565
-	296-A1/S1A-26/7	344.6	26	7	3.81	2.96	24.10	1196	103.80	0.0974	455	571
-	314-A1/S1A-22/7	344.2	22	7	4.26	2.36	24.10	1105	86.70	0.0919	468	587
Peace River	317-A1/S1A-48/7	344.9	48	7	2.90	2.25	24.10	1094	88.10	0.0911	464	582
-	327-A1/S1A-42/7	344.1	42	7	3.15	1.75	24.10	1037	75.30	0.0883	471	592
-	328-A1/S1A-26/7	381.9	26	7	4.01	3.12	25.40	1326	113.00	0.0879	482	607
Grand Rapid	347-A1/S1A-22/7	380.9	22	7	4.48	2.49	25.40	1224	96.10	0.0832	496	624
-	361-A1/S1A-42/7	380.0	42	7	3.31	1.84	25.40	1145	83.20	0.0799	499	628
-	362-A1/S1A-26/7	421.1	26	7	4.21	3.28	26.70	1462	125.00	0.0797	509	644
-	383-A1/S1A-22/7	420.8	22	7	4.71	2.61	26.70	1351	106.00	0.0752	524	662
-	399-A1/S1A-42/7	420.0	42	7	3.48	1.93	26.70	1265	91.90	0.0723	527	666
-	397-A1/S1A-26/7	461.8	26	7	4.41	3.43	27.90	1603	137.00	0.0727	536	680
-	423-A1/S1A-48/7	460.5	48	7	3.35	2.61	27.90	1463	115.00	0.0683	546	691
Les Boules	439-A1/S1A-42/7	461.9	42	7	3.65	2.02	27.90	1391	101.00	0.0657	556	705
-	434-A1/S1A-26/7	504.8	26	7	4.61	3.59	29.20	1753	150.00	0.0665	564	717
-	445-A1/S1A-54/7	503.3	54	7	3.24	3.25	29.20	1686	140.00	0.0649	563	716
-	462-A1/S1A-48/7	502.8	48	7	3.50	2.73	29.20	1597	125.00	0.0626	573	728
-	479-A1/S1A-42/7	503.5	42	7	3.81	2.12	29.20	1517	108.00	0.0603	583	742
-	474-A1/S1A-26/7	551.3	26	7	4.82	3.74	30.50	1912	163.00	0.0608	592	755
-	487-A1/S1A-54/7	550.6	54	7	3.39	3.39	30.50	1843	152.00	0.0593	591	755
-	505-A1/S1A-48/7	549.3	48	7	3.66	2.84	30.50	1743	136.00	0.0572	602	768

ALUMINIUM CONDUCTOR STEEL REINFORCED (ACSR) CAN/CSA-C61089-11 - TYPE A1/S1A (Canadian Diameter-Based Sizes)



CONDUCTOR NAME	CODE NAME	SECTIONAL AREA	STRANDING				DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
			NO. OF WIRES		WIRE DIAMETER						@ 75°C	@ 85°C
			ALUMINIUM	STEEL	ALUMINIUM	STEEL						
Carillon	523-A1/S1A-42/7	549.4	(NO.)	(NO.)	(MM)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
-	571-A1/S1A-54/19	643.5	42	7	3.98	2.21	30.50	1655	118.00	0.0553	612	781
-	591-A1/S1A-48/7	643.3	54	19	3.67	2.20	33.00	2147	182.00	0.0506	645	828
Gatineau	591-A1/S1A-48/7	643.3	48	7	3.96	3.08	33.00	2042	155.00	0.0488	655	842
-	613-A1/S1A-42/7	644.2	42	7	4.31	2.39	33.00	1940	137.00	0.0472	667	857
-	662-A1/S1A-54/19	745.5	54	19	3.95	2.37	35.60	2489	205.00	0.0437	698	903
Bersfort	687-A1/S1A-48/7	748.0	48	7	4.27	3.32	35.60	2374	180.00	0.0420	711	919
-	710-A1/S1A-42/7	746.8	42	7	4.64	2.58	35.60	2250	159.00	0.0407	721	933
-	787-A1/S1A-48/7	857.0	48	7	4.57	3.56	38.10	2722	207.00	0.0367	763	994
-	794-A1/S1A-84/7	860.2	84	7	3.47	3.46	38.10	2715	207.00	0.0364	776	1010
-	821-A1/S1A-72/7	856.3	72	7	3.81	2.54	38.10	2549	176.00	0.0352	786	1024
-	898-A1/S1A-84/7	973.6	84	7	3.69	3.70	40.60	3076	236.00	0.0322	826	1083
-	932-A1/S1A-72/7	972.5	72	7	4.06	2.71	40.60	2895	200.00	0.0310	839	1099
-	1019-A1/S1A-84/7	1103.0	84	7	3.93	3.92	43.20	3483	261.00	0.0284	880	1161
-	1055-A1/S1A-72/7	1101.0	72	7	4.32	2.88	43.20	3277	226.00	0.0274	891	1177
-	1077-A1/S1A-84/19	1165.0	84	19	4.04	2.43	44.50	3671	278.00	0.0268	904	1197
-	1115-A1/S1A-72/19	1162.0	72	19	4.44	1.78	44.50	3455	239.00	0.0259	915	1212

ALUMINIUM CONDUCTOR STEEL REINFORCED (ACSR)

ABNT NBR 7270



CODE NAME	SECTIONAL AREA	STRANDING				DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
		NO. OF WIRES		WIRE DIAMETER						@ 75°C	@ 85°C
		ALUMINIUM	STEEL	ALUMINIUM	STEEL						
(MM ²)	(NO.)	(NO.)	(MM)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)	
TURKEY	13.30/2.22	6	1	1.68	1.68	5.04	54	5.31	2.1570	68	81
THRUSH	16.83/2.81	6	1	1.89	1.89	5.67	68	6.65	1.7046	79	93
SWAN	21.18/3.53	6	1	2.12	2.12	6.36	86	8.30	1.3545	90	107
SWALLOW	26.69/4.45	6	1	2.38	2.38	7.14	108	10.23	1.0749	104	124
SPARROW	33.59/5.60	6	1	2.67	2.67	8.01	136	12.65	0.8541	119	142
ROBIN	42.41/7.07	6	1	3.00	3.00	9.00	171	15.85	0.6764	137	164
RAVEN	53.52/8.92	6	1	3.37	3.37	10.11	216	19.46	0.5360	157	189
QUAIL	67.33/11.22	6	1	3.78	3.78	11.34	272	23.53	0.4261	180	218
PIGEON	85.12/14.19	6	1	4.25	4.25	12.75	344	29.42	0.3370	207	251
PENGUIN	107.22/17.87	6	1	4.77	4.77	14.31	433	37.06	0.2676	237	289
WAXWING	134.98/7.50	18	1	3.09	3.09	15.45	431	31.22	0.2136	287	352
PARTRIDGE	134.87/21.99	26	7	2.57	2.00	16.28	546	50.11	0.2148	289	355
OSTRICH	152.19/24.71	26	7	2.73	2.12	17.28	615	56.41	0.1904	310	381
MERLIN	170.22/9.46	18	1	3.47	3.47	17.45	543	39.37	0.1694	329	405
LINNET	170.55/27.83	26	7	2.89	2.25	18.31	690	62.91	0.1699	331	409
ORIOLE	170.50/39.78	30	7	2.69	2.69	18.83	784	77.26	0.1703	332	411
CHICKADEE	200.93/11.16	18	1	3.77	3.77	18.85	641	45.13	0.1435	362	447
BRANT	201.56/26.13	24	7	3.27	2.18	19.62	763	65.10	0.1437	364	451
IBIS	201.34/32.73	26	7	3.14	2.44	19.88	814	72.42	0.1439	364	452
LARK	200.90/46.88	30	7	2.92	2.92	20.44	924	90.49	0.1446	365	453
PELICAN	242.31/13.46	18	1	4.14	4.14	20.70	773	53.50	0.1190	403	501
FLICKER	241.58/31.40	24	7	3.58	2.39	21.49	915	76.55	0.1199	404	503
HAWK	241.65/39.49	26	7	3.44	2.68	21.80	978	87.18	0.1199	405	504
HEN	241.27/56.30	30	7	3.20	3.20	22.40	1110	105.60	0.1204	405	506
OSPREY	282.47/15.69	18	1	4.47	4.47	22.35	901	62.37	0.1021	440	549
PARAKEET	282.31/36.60	24	7	3.87	2.58	23.22	1068	88.29	0.1026	441	552
DOVE	282.59/45.92	26	7	3.72	2.89	23.55	1142	100.80	0.1025	442	554
EAGLE	282.07/65.82	30	7	3.46	3.46	24.22	1298	123.50	0.1030	443	556
PEACOCK	306.13/39.78	24	7	4.03	2.69	24.19	1159	95.86	0.0946	462	580
SQUAB	305.83/49.81	26	7	3.87	3.01	24.51	1236	108.10	0.0947	463	581
WOOD DUCK	307.06/71.65	30	7	3.61	3.61	25.27	1413	128.70	0.0946	465	585
TEAL	307.06/69.62	30	19	3.61	2.16	25.24	1398	133.10	0.0946	465	585
DUCK	306.89/39.78	54	7	2.69	2.69	24.21	1161	98.87	0.0944	456	573
KINGBIRD	323.01/17.95	18	1	4.78	4.78	23.90	1030	71.33	0.0893	474	595
ROOK	323.07/41.88	24	7	4.14	2.76	24.84	1222	101.00	0.0897	476	598
GROSBEAK	321.84/52.49	26	7	3.97	3.09	25.15	1302	111.90	0.0900	476	599
SCOTER	322.56/75.26	30	7	3.70	3.70	25.90	1484	135.20	0.0900	478	603

ALUMINIUM CONDUCTOR STEEL REINFORCED (ACSR)

ABNT NBR 7270



CODE NAME	SECTIONAL AREA	STRANDING				DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
		NO. OF WIRES		WIRE DIAMETER						@ 75°C	@ 85°C
		ALUMINIUM	STEEL	ALUMINIUM	STEEL						
(MM ²)	(NO.)	(NO)	(MM)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)	
EGRET	322.56/ 73.54	30	19	3.70	2.22	25.90	1472	140.30	0.0900	478	603
GOOSE	323.07/ 41.88	54	7	2.76	2.76	24.84	1222	104.10	0.0897	470	590
FLAMINGO	337.27/ 43.72	24	7	4.23	2.82	25.38	1276	105.50	0.0859	488	614
GANNET	338.26/ 54.90	26	7	4.07	3.16	25.76	1366	117.30	0.0857	489	617
STILT	363.27/ 46.88	24	7	4.39	2.92	26.32	1373	113.40	0.0798	508	641
STARLING	361.93/ 59.15	26	7	4.21	3.28	26.68	1464 .8	126.00	0.0800	509	643
REDWING	362.06/ 82.41	30	19	3.92	2.35	27.43	1651	153.70	0.0802	510	646
CUCKOO	402.33/ 52.15	24	7	4.62	3.08	27.72	1522	123.80	0.0720	538	682
DRAKE	402.56/ 65.44	26	7	4.44	3.45	28.11	1627	139.70	0.0720	540	684
MALLARD	403.84/ 91.78	30	19	4.14	2.48	28.96	1840	171.20	0.0719	542	689
TERN	403.77/ 27.83	45	7	3.38	2.25	27.03	1336	98.20	0.0718	530	671
CONDOR	402.33/ 52.15	54	7	3.08	3.08	27.72	1522	125.10	0.0720	531	673
RUDDY	455.50/ 31.67	45	7	3.59	2.40	28.74	1509	109.00	0.0636	567	721
CANARY	456.28/ 59.15	54	7	3.28	3.28	29.52	1726	141.80	0.0635	570	725
RAIL	483.95/ 33.54	45	7	3.70	2.47	29.61	1603	115.60	0.0599	586	747
CARDINAL	484.53/ 62.81	54	7	3.38	3.38	30.42	1833	150.60	0.0598	589	751
ORTOLAN	523.87/ 36.31	45	7	3.85	2.57	30.81	1735	123.30	0.0553	613	783
CURLEW	522.52/ 67.73	54	7	3.51	3.51	31.59	1977	162.40	0.0554	614	786
BLUEJAY	565.49/ 38.90	45	7	4.00	2.66	31.98	1871	132.70	0.0512	639	818
FINCH	565.03/ 71.57	54	19	3.65	2.19	32.85	2133	174.10	0.0515	639	821
BUNTING	605.76/ 41.88	45	7	4.14	2.76	33.12	2005	142.40	0.0478	663	852
GRACKLE	602.79/ 76.89	54	19	3.77	2.27	33.97	2280	186.40	0.0483	662	852
BITTERN	644.41/44.66	45	7	4.27	2.85	34.17	2134	151.60	0.0450	685	883
PHEASANT	645.08/ 81.71	54	19	3.90	2.34	35.10	2436	194.10	0.0451	687	887
DIOPPER	684.24/ 47.20	45	7	4.40	2.93	35.19	2264	160.70	0.0423	708	914
MARTIN	685.39/ 86.67	54	19	4.02	2.41	36.17	2587	206.10	0.0425	709	918
BOBOLINK	725.27/ 50.14	45	7	4.53	3.02	36.24	2401	170.50	0.0399	730	946
PLOVER	726.92/ 91.78	54	19	4.14	2.48	37.24	2742	218.40	0.0401	731	950
NUTHATCH	764.20/ 52.83	45	7	4.65	3.10	37.20	2530	177.60	0.0379	750	974
PARROT	766.06/ 97.03	54	19	4.25	2.55	38.25	2892	230.50	0.0380	752	979
LAPWING	807.53/ 55.60	45	7	4.78	3.18	38.22	2672	187.40	0.0359	771	1005
FALCON	806.23/102.43	54	19	4.36	2.62	39.26	3046	243.00	0.0361	773	1009
CHUKAR	903.18/ 73.54	84	19	3.70	2.22	40.70	3090	227.00	0.0322	827	1084
BLUEBIRD	1092.85/88.84	84	19	4.07	2.44	44.76	3738	268.00	0.0266	909	1204
KIWI	1099.77/47.52	72	7	4.41	2.94	44.10	3433	221.70	0.0265	906	1199

ALUMINIUM CONDUCTOR STEEL REINFORCED (ACSR) ABNT NBR 7270



CODE NAME	SECTIONAL AREA (MM ²)	STRANDING				DIAMETER OF COMPLETE CONDUCTOR (MM)	WEIGHT (KG/KM)	RATED STRENGTH KN	DC RESISTANCE @ 20°C (Ω/KM)	CURRENT CAPACITY	
		NO. OF WIRES		WIRE DIAMETER						@ 75°C (AMPERE)	@ 85°C (AMPERE)
		ALUMINIUM M	STEEL	ALUMINIUM M	STEEL						
THRASHER	1171.42/ 63.94	76	19	4.43	2.07	45.79	3762	251.90	0.0249	935	1243
GROUSE	40.54/ 14.12	8	1	2.54	4.24	9.32	222	23.10	0.7111	134	161
PETREL	51.61 /30.10	12	7	2.34	2.34	11.70	378	46.20	0.5613	158	191
MINORCA	56.11/ 32.73	12	7	2.44	2.44	12.20	411	50.24	0.5163	166	201
LEGHORN	68.20/ 39.78	12	7	2.69	2.69	13.45	500	60.60	0.4248	186	226
GUINEA	80.36/ 46.88	12	7	2.92	2.92	14.60	589	71.18	0.3605	205	250
DOTTEREL	89.41/ 52.15	12	7	3.08	3.08	15.40	655	76.84	0.3240	218	267
DORKING	96.51/56.30	12	7	3.20	3.20	16.00	707	82.96	0.3002	228	279
BRAHMA	102.79/ 91.78	16	19	2.86	2.48	18.12	1003	126.60	0.2818	240	296
COCHIN	107.04/ 62.44	12	7	3.37	3.37	16.85	784	92.00	0.2707	242	297

ALUMINIUM CONDUCTOR STEEL REINFORCED (ACSR)

ASTM B 232



CODE NAME	CONDUCTOR SIZE	SECTIONAL AREA	STRANDING				DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
			NO. OF WIRES		WIRE DIAMETER						@ 75°C	@ 85°C
			ALUMINIUM	STEEL	ALUMINIUM	STEEL						
Thrasher	2312.0	1235.1	(NO.)	(NO.)	(MM)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
Kiwi	2167.0	1145.7	76	19	4.43	2.07	45.77	3754	252.30	0.0248	937	1245
Bluebird	2156.0	1181.3	72	7	4.41	2.94	44.07	3424	221.60	0.0264	907	1200
Bluebird	2156.0	1181.3	84	19	4.07	2.44	44.75	3732	268.32	0.0265	910	1205
Chukar	1780.0	975.9	84	19	3.70	2.22	40.69	3083	226.94	0.0322	827	1084
Falcon	1590.0	907.9	54	19	4.36	2.62	39.24	3038	242.51	0.0360	774	1010
Lapwing	1590.0	861.6	45	7	4.78	3.18	38.20	2664	187.78	0.0358	772	1005
Parrot	1510.5	861.8	54	19	4.25	2.55	38.23	2884	230.06	0.0379	753	980
Nuthatch	1510.5	818.2	45	7	4.65	3.10	37.24	2530	178.44	0.0377	752	976
Plover	1431.0	817.1	54	19	4.14	2.48	37.21	2735	218.49	0.0400	732	950
Bobolink	1431.0	775.0	45	7	4.53	3.02	36.25	2397	170.43	0.0398	730	946
Martin	1351.5	771.5	54	19	4.02	2.41	36.17	2582	206.03	0.0424	710	919
Dipper	1351.5	732.1	45	7	4.40	2.93	35.20	2263	161.08	0.0424	709	916
Pheasant	1272.0	726.4	54	19	3.90	2.34	35.10	2431	194.01	0.0450	687	888
Bittern	1272.0	688.9	45	7	4.27	2.85	34.16	2131	151.74	0.0448	686	884
Skylark	1272.0	662.6	36	1	4.78	4.78	33.43	1914	117.48	0.0446	694	892
Grackle	1192.5	680.8	54	19	3.77	2.27	33.99	2278	186.45	0.0480	664	855
Bunting	1192.5	646.1	45	7	4.14	2.76	33.07	1997	142.39	0.0478	663	852
Finch	1113.0	635.8	54	19	3.65	2.19	32.84	2128	173.99	0.0514	640	821
Bluejay	1113.0	603.2	45	7	4.00	2.66	31.98	1866	132.60	0.0512	639	819
Curlew	1033.5	591.2	54	7	3.51	3.51	31.62	1978	162.86	0.0552	615	788
Ortolan	1033.5	559.5	45	7	3.85	2.57	30.78	1731	123.26	0.0552	613	783
Tanager	1033.5	538.0	36	1	4.30	4.30	30.12	1553	95.23	0.0549	620	791
Cardinal	954.0	545.9	54	7	3.38	3.38	30.38	1826	150.40	0.0598	589	751
Rail	954.0	516.8	45	7	3.70	2.47	29.59	1598	115.25	0.0597	587	748
Catbird	954.0	496.9	36	1	4.14	4.14	28.96	1434	88.11	0.0594	594	755
Canary	900.0	515.2	54	7	3.28	3.28	29.51	1723	141.95	0.0633	571	726
Ruddy	900.0	487.4	45	7	3.59	2.40	28.73	1507	108.58	0.0633	568	722
Mallard	795.0	494.8	30	19	4.14	2.48	28.96	1836	170.87	0.0716	542	689
Condor	795.0	454.8	54	7	3.08	3.08	27.74	1521	125.48	0.0717	532	674

ALUMINIUM CONDUCTOR STEEL REINFORCED (ACSR)

ASTM B 232



CODE NAME	CONDUCTOR SIZE	SECTIONAL AREA	STRANDING				DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
			NO. OF WIRES		WIRE DIAMETER						@ 75°C	@ 85°C
			ALUMINIUM	STEEL	ALUMINIUM	STEEL						
Tern	795.0	(MM ²) 430.6	(NO.) 45	(NO.) 7	(MM) 3.38	(MM) 2.25	(MM) 27.00	(KG/KM) 1332	KN 98.34	(Ω/KM) 0.0717	(AMPERE) 531	(AMPERE) 671
Drake	795.0	468.6	26	7	4.44	3.45	28.14	1626	140.17	0.0716	541	686
Cuckoo	795.0	455.0	24	7	4.62	3.08	27.74	1522	124.15	0.0716	540	684
Coot	795.0	414.0	36	1	3.77	3.77	26.42	1196	74.76	0.0713	537	678
Redwing	715.5	444.9	30	19	3.92	2.35	27.46	1651	153.96	0.0798	511	647
Starling	715.5	421.6	26	7	4.21	3.28	26.70	1464	126.37	0.0796	510	644
Stilt	715.5	409.7	24	7	4.39	2.92	26.31	1370	113.47	0.0796	509	642
Gannet	666.6	392.7	26	7	4.07	3.16	25.76	1363	117.48	0.0855	490	617
Flamingo	666.6	381.7	24	7	4.23	2.82	25.40	1277	105.46	0.0854	489	616
Egret	636.0	395.8	30	19	3.70	2.22	25.88	1469	140.17	0.0898	479	603
Scoter	636.0	397.5	30	7	3.70	3.70	25.88	1481	135.27	0.0900	478	602
Grosbeak	636.0	374.7	26	7	3.97	3.09	25.15	1301	112.14	0.0900	476	599
Rook	636.0	364.1	24	7	4.14	2.76	24.82	1217	100.57	0.0896	476	599
Swift	636.0	331.1	36	1	3.38	3.38	23.62	956	61.41	0.0892	474	593
Kingbird	636.0	340.3	18	1	4.78	4.78	23.88	1027	69.86	0.0891	474	595
Teal	605.0	376.4	30	19	3.61	2.16	25.25	1397	133.49	0.0944	465	585
Wood Duck	605.0	378.0	30	7	3.61	3.61	25.25	1408	128.60	0.0944	465	585
Squab	605.0	356.3	26	7	3.87	3.01	24.54	1237	108.13	0.0942	464	582
Peacock	605.0	346.4	24	7	4.03	2.69	24.21	1159	96.12	0.0942	463	581
Eagle	556.5	347.8	30	7	3.46	3.46	24.21	1296	123.70	0.1026	444	557
Dove	556.5	327.9	26	7	3.72	2.89	23.55	1139	100.57	0.1024	442	554
Parakeet	556.5	318.6	24	7	3.87	2.58	23.22	1066	88.11	0.1024	442	553
Osprey	556.5	297.5	18	1	4.47	4.47	22.33	898	60.96	0.1019	440	549
Hen	477.0	298.1	30	7	3.20	3.20	22.43	1111	105.91	0.1197	407	508
Hawk	477.0	280.9	26	7	3.44	2.67	21.79	975	86.77	0.1196	405	505
Flicker	477.0	273.1	24	7	3.58	2.39	21.49	913	76.54	0.1194	404	504
Pelican	477.0	255.2	18	1	4.14	4.14	20.68	770	52.51	0.1188	403	501
Lark	397.5	248.4	30	7	2.92	2.92	20.47	925	90.33	0.1437	366	455
Ibis	397.5	234.0	26	7	3.14	2.44	19.89	812	72.53	0.1434	365	452

ALUMINIUM CONDUCTOR STEEL REINFORCED (ACSR)

ASTM B 232



CODE NAME	CONDUCTOR SIZE	SECTIONAL AREA	STRANDING				DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
			NO. OF WIRES		WIRE DIAMETER						@ 75°C	@ 85°C
			ALUMINIUM	STEEL	ALUMINIUM	STEEL						
Oriole	336.4	210.3	(NO.)	(NO.)	(MM)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
		(MM ²)										
Oriole	336.4	210.3	30	7	2.69	2.69	18.82	783	76.98	0.1698	333	411
Linnet	336.4	198.0	26	7	2.89	2.25	18.29	687	62.74	0.1695	331	409
Merlin	336.4	179.9	18	1	3.47	3.47	17.37	543	38.62	0.1686	330	406
Ostrich	300.0	176.7	26	7	2.73	2.12	17.27	613	56.51	0.1900	310	382
Partridge	266.8	157.2	26	7	2.57	2.00	16.31	546	50.28	0.2135	290	356
Waxwing	266.8	142.6	18	1	3.09	3.09	15.47	430	30.61	0.2127	288	352
Penguin	211.6	125.1	6	1	4.77	4.77	14.30	433	37.16	0.2667	237	289
Cochin	211.3	169.5	12	7	3.37	3.37	16.87	784	92.11	0.2697	242	298
Brahma	203.2	194.9	16	19	2.86	2.48	18.14	1004	126.37	0.2804	240	297
Dorking	190.8	153.1	12	7	3.20	3.20	16.03	708	83.21	0.2986	228	280
Dotterel	176.9	141.9	12	7	3.08	3.08	15.42	656	76.98	0.3222	218	267
Pigeon	167.8	99.2	6	1	4.25	4.25	12.75	343	29.46	0.3364	207	251
Guinea	159.0	127.5	12	7	2.92	2.92	14.63	590	71.20	0.3584	205	251
Leghorn	134.6	108.0	12	7	2.69	2.69	13.46	499	60.52	0.4234	186	227
Quail	133.1	78.6	6	1	3.78	3.78	11.35	272	23.58	0.4242	180	218
Minorca	110.8	88.9	12	7	2.44	2.44	12.22	411	50.28	0.5142	166	201
Raven	105.6	62.5	6	1	3.37	3.37	10.11	216	19.49	0.5341	157	190
Petrel	101.8	81.7	12	7	2.34	2.34	11.71	378	46.28	0.5598	158	191
Robin	83.7	49.5	6	1	3.00	3.00	8.99	171	15.80	0.6743	137	164
Grouse	80.0	54.7	8	1	2.54	4.24	9.32	221	23.14	0.7088	135	162
Sparate	66.4	42.2	7	1	2.47	3.30	8.26	159	16.20	0.8497	120	144
Sparrow	66.4	39.3	6	1	2.67	2.67	8.03	136	12.68	0.8498	120	143
Swanate	41.7	26.5	7	1	1.96	2.61	6.53	100	10.50	1.3526	91	108
Swan	41.7	24.7	6	1	2.12	2.12	6.35	85	8.28	1.3522	91	107
Turkey	26.2	15.5	6	1	1.68	1.68	5.03	54	5.30	2.1526	68	81
Brant	397.5	227.5	24	7	3.27	2.18	19.61	761	64.97	0.1433	364	451
Chickadee	397.5	212.6	18	1	3.77	3.77	18.87	641	44.23	0.1426	363	449

ALUMINIUM CONDUCTOR STEEL REINFORCED (ACSR)

ASTM B 232



CODE NAME	CONDUCTOR SIZE	SECTIONAL AREA	STRANDING				DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
			NO. OF WIRES		WIRE DIAMETER						@ 75°C	@ 85°C
			ALUMINIUM	STEEL	ALUMINIUM	STEEL						
-	2466.9	1250.0	84	19	4.35	2.61	47.85	4274	306.00	0.0232	969	1295
-	2466.9	1250.0	76	19	4.58	2.14	47.34	4023	269.00	0.0231	967	1290
-	2466.9	1250.0	72	7	4.70	3.13	46.99	3901	250.00	0.0232	964	1285
-	2210.4	1120.0	84	19	4.12	2.47	45.31	3833	275.00	0.0259	921	1221
-	2210.4	1120.0	76	19	4.33	2.02	44.74	3595	240.00	0.0259	917	1215
-	2210.4	1120.0	72	7	4.45	2.97	44.51	3499	226.00	0.0259	916	1213
-	1973.6	1000.0	84	19	3.89	2.33	42.77	3416	245.00	0.0290	870	1147
-	1973.6	1000.0	72	7	4.21	2.81	42.11	3132	202.00	0.0289	868	1142
-	1776.2	900.0	84	19	3.69	2.21	40.57	3073	226.00	0.0323	825	1082
-	1776.2	900.0	72	7	3.99	2.66	39.90	2812	181.00	0.0322	823	1076
-	1578.8	800.0	54	19	4.34	2.60	39.04	3015	240.00	0.0363	770	1005
-	1578.8	800.0	45	7	4.76	3.17	38.07	2652	186.00	0.0360	769	1002
-	1401.2	710.0	54	19	4.09	2.45	36.79	2678	213.00	0.0409	723	938
-	1401.2	710.0	45	7	4.48	2.99	35.85	2351	167.00	0.0407	722	935
-	1243.3	630.0	54	19	3.85	2.31	34.65	2375	189.00	0.0461	678	875
-	1243.3	630.0	45	7	4.22	2.81	33.75	2084	148.00	0.0458	678	872
-	1105.2	560.0	54	19	3.63	2.18	32.68	2112	173.00	0.0519	636	817
-	1105.2	560.0	45	7	3.98	2.65	31.83	1854	132.00	0.0515	636	815
-	986.8	500.0	54	7	3.43	3.43	30.87	1889	154.00	0.0578	600	766
-	986.8	500.0	45	7	3.76	2.51	30.09	1656	118.00	0.0577	598	762
-	888.1	450.0	54	7	3.26	3.26	29.34	1706	139.00	0.0640	567	721
-	888.1	450.0	45	7	3.57	2.38	28.56	1492	108.00	0.0641	565	717
-	789.4	400.0	30	19	4.12	2.47	28.83	1824	170.00	0.0723	540	686
-	789.4	400.0	26	7	4.43	3.45	28.07	1622	139.00	0.0720	539	684
-	789.4	400.0	24	7	4.61	3.07	27.65	1515	123.00	0.0720	539	683
-	700.6	355.0	30	19	3.88	2.33	27.17	1620	151.00	0.0816	505	639
-	700.6	355.0	26	7	4.17	3.24	26.40	1435	123.00	0.0813	504	636
-	700.6	355.0	24	7	4.34	2.89	26.03	1343	111.00	0.0813	503	634
-	621.7	315.0	30	19	3.66	2.20	25.64	1443	138.00	0.0917	473	596

ALUMINIUM CONDUCTOR STEEL REINFORCED (ACSR)

ASTM B 232



CODE NAME	CONDUCTOR SIZE	SECTIONAL AREA	STRANDING				DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
			NO. OF WIRES		WIRE DIAMETER						@ 75°C	@ 85°C
			ALUMINIUM	STEEL	ALUMINIUM	STEEL						
-	621.7	(MM ²) 315.0	(NO.) 26	(NO) 7	(MM) 3.93	(MM) 3.06	(MM) 24.90	(KG/M) 1277	KN 110.00	(Ω/KM) 0.0915	(AMPERE) 471	(AMPERE) 593
-	621.7	315.0	24	7	4.09	2.73	24.55	1194	98.70	0.0915	470	591
-	621.7	315.0	18	1	4.72	4.72	23.60	1005	68.00	0.0912	468	587
-	552.6	280.0	30	7	3.45	3.45	24.15	1291	122.00	0.1032	442	555
-	552.6	280.0	26	7	3.70	2.88	23.44	1131	100.00	0.1033	440	551
-	552.6	280.0	24	7	3.85	2.57	23.11	1058	87.50	0.1034	439	549
-	552.6	280.0	18	1	4.45	4.45	22.25	901	60.40	0.1026	438	547
-	493.4	250.0	30	7	3.26	3.26	22.82	1152	109.00	0.1156	415	519
-	493.4	250.0	26	7	3.50	2.72	22.16	1011	89.50	0.1154	413	516
-	493.4	250.0	24	7	3.64	2.43	21.85	946	79.40	0.1156	412	514
-	493.4	250.0	18	1	4.21	4.21	21.05	800	54.10	0.1147	411	512
-	442.1	224.0	30	7	3.08	3.08	21.56	1029	97.40	0.1295	389	484
-	442.1	224.0	26	7	3.31	2.57	20.95	904	80.00	0.1291	388	482
-	442.1	224.0	24	7	3.45	2.30	20.70	849	72.00	0.1287	387	482
-	442.1	224.0	18	1	3.98	3.98	19.90	721	48.30	0.1283	386	478
-	394.7	200.0	30	7	2.91	2.91	20.37	918	89.70	0.1451	364	452
-	394.7	200.0	26	7	3.13	2.43	19.81	808	71.50	0.1443	364	451
-	394.7	200.0	24	7	3.26	2.17	19.55	758	64.20	0.1442	363	450
-	394.7	200.0	18	1	3.76	3.76	18.80	643	43.10	0.1437	361	447
-	355.2	180.0	30	7	2.76	2.76	19.32	826	80.70	0.1613	343	424
-	355.2	180.0	26	7	2.97	2.31	18.81	729	65.40	0.1603	342	423
-	355.2	180.0	24	7	3.09	2.06	18.54	681	57.80	0.1604	341	422
-	355.2	180.0	18	1	3.57	3.57	17.85	575	40.40	0.1598	340	419
-	315.8	160.0	30	7	2.61	2.61	18.27	739	72.90	0.1804	321	397
-	315.8	160.0	26	7	2.80	2.18	17.74	648	58.90	0.1804	320	394
-	315.8	160.0	24	7	2.91	1.94	17.46	604	52.00	0.1809	318	392
-	315.8	160.0	18	1	3.36	3.36	16.80	509	35.80	0.1800	317	390
-	276.3	140.0	26	7	2.62	2.04	16.60	567	52.20	0.2060	296	364
-	276.3	140.0	24	7	2.73	1.82	16.38	532	46.40	0.2055	296	363

ALUMINIUM CONDUCTOR STEEL REINFORCED (ACSR)

ASTM B 232



CODE NAME	CONDUCTOR SIZE	SECTIONAL AREA	STRANDING				DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
			NO. OF WIRES		WIRE DIAMETER						@ 75°C	@ 85°C
			ALUMINIUM	STEEL	ALUMINIUM	STEEL						
-	276.3	140.0	18	1	3.15	3.15	15.75	448	31.50	0.2048	294	361
-	246.7	125.0	26	7	2.47	1.92	15.64	504	46.90	0.2317	276	339
-	246.7	125.0	24	7	2.58	1.72	15.48	475	41.50	0.2301	277	339
-	246.7	125.0	18	1	2.97	2.97	14.85	401	28.80	0.2304	275	336
-	197.4	100.0	16	19	2.82	2.44	17.84	972	123.00	0.2889	236	291
-	197.4	100.0	12	7	3.26	3.26	16.30	734	85.90	0.2882	233	286
-	197.4	100.0	6	1	4.61	4.61	13.83	405	34.60	0.2855	228	277
-	177.6	90.0	12	7	3.09	3.09	15.45	660	77.20	0.3208	219	268
-	157.9	80.0	12	7	2.91	2.91	14.55	585	70.60	0.3618	204	249
-	157.9	80.0	6	1	4.12	4.12	12.36	323	27.60	0.3574	200	242
-	140.1	71.0	12	7	2.74	2.74	13.70	519	62.90	0.4081	190	232
-	124.3	63.0	12	7	2.59	2.59	12.95	463	56.20	0.4567	178	216
-	124.3	63.0	6	1	3.66	3.66	10.98	255	22.10	0.4529	174	210
-	110.5	56.0	12	7	2.44	2.44	12.20	411	50.20	0.5146	166	201
-	98.7	50.0	12	7	2.30	2.30	11.50	365	45.40	0.5791	155	187
-	98.7	50.0	6	1	3.26	3.26	9.78	202	18.10	0.5709	151	182
-	78.9	40.0	8	1	2.52	4.20	9.24	218	22.50	0.7201	133	160
-	78.9	40.0	6	1	2.91	2.91	8.73	161	14.90	0.7165	132	158
-	62.2	31.5	7	1	2.39	3.19	7.97	148	15.10	0.9105	115	138
-	62.2	31.5	6	1	2.59	2.59	7.77	128	11.90	0.9046	115	137
-	49.3	25.0	7	1	2.13	2.84	7.10	118	12.30	1.1464	100	120
-	49.3	25.0	6	1	2.30	2.30	6.90	101	9.53	1.1471	100	119
-	39.5	20.0	7	1	1.91	2.55	6.37	95	10.00	1.4257	88	105
-	39.5	20.0	6	1	2.06	2.06	6.18	81	7.84	1.4299	88	104
-	31.6	16.0	6	1	1.84	1.84	5.52	64	6.33	1.7923	76	90
-	24.7	12.5	6	1	1.63	1.63	4.89	51	4.97	2.2838	66	78

ALUMINIUM CONDUCTOR STEEL REINFORCED (ACSR)

SS 424 08 07



CODE NAME	SECTIONAL AREA	STRANDING				DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
		NO. OF WIRES		WIRE DIAMETER						@ 75°C	@ 85°C
		ALUMINIUM	STEEL	ALUMINIUM	STEEL						
	(MM ²)	(NO.)	(NO)	(MM)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
Swallow	31.1	6	1	2.38	2.38	7.14	108	10.00	1.0700	104	124
Robin	49.5	6	1	3.00	3.00	9.00	171	15.60	0.6750	137	164
Raven	62.4	6	1	3.37	3.37	10.11	216	19.00	0.5350	157	189
Pigeon	99.3	6	1	4.25	4.25	12.75	343	29.80	0.3360	207	251
Partridge	156.9	26	7	2.57	2.00	16.28	545	50.20	0.2140	290	355
Ibis	234.1	26	7	3.14	2.44	19.88	812	72.90	0.1430	365	453
Dove	328.5	26	7	3.72	2.89	23.55	1140	99.70	0.1020	443	555
Condor	454.5	54	7	3.08	3.08	27.72	1522	129.00	0.0720	531	673
Curlew	593/68	54	7	3.52	3.52	31.68	1990	165.00	0.0551	616	788
Skata	774/89	54	7	4.02	4.02	36.18	2592	212.00	0.0422	711	921
Falcon	910/102	54	19	4.36	2.62	39.26	3040	251.00	0.0361	773	1009
Morkulla	593/29	42	7	4.13	2.31	31.70	1782	128.00	0.0514	637	815
Ripa	774/38	42	7	4.72	2.63	36.20	2324	162.00	0.0393	734	952
Orre	910/44	42	7	5.12	2.83	39.20	2736	191.00	0.0334	799	1043
Dotterel	142.00	12	7	3.08	3.08	15.40	655.0	73.20	0.3220	218	267
Oden	185.00	12	7	3.52	3.52	17.60	855.0	94.90	0.2470	255	314
Atle	241.00	12	7	4.02	4.02	20.10	1115.0	123.00	0.1890	298	369
Ymer	319.00	32	7	3.16	3.52	23.20	1228.0	119.00	0.1150	417	522



POWERLINE

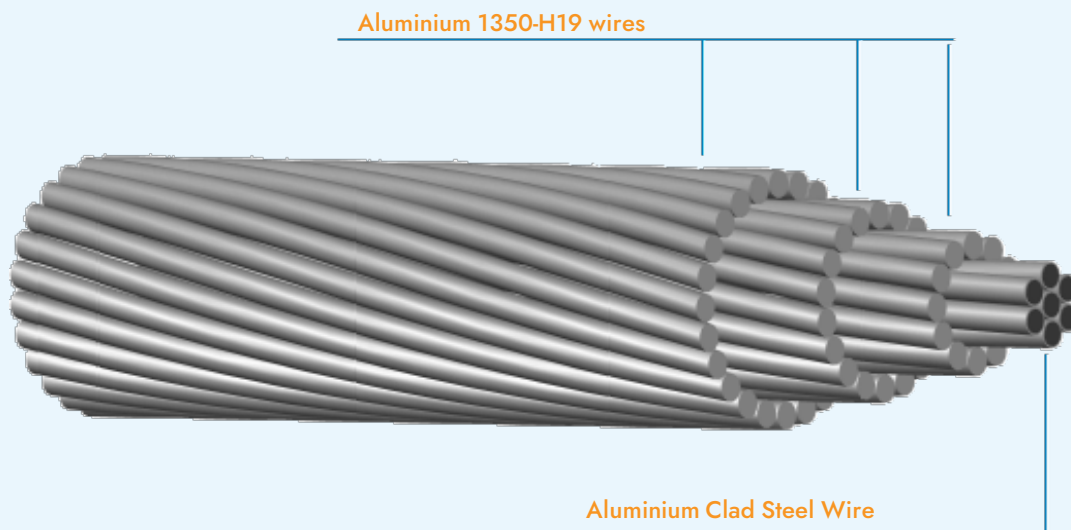
ALUMINIUM

CONDUCTOR ALUMINIUM CLAD STEEL REINFORCED (ACSR/AW or ACSR/AS)

These are concentrically stranded conductors with one or more layers of hard drawn Aluminium wires on Aluminium Clad steel wire core. The mechanical properties of ACSR/AS conductors are similar to ACSR conductors but offers improved ampacity and resistance to corrosion because of the presence of Aluminium clad steel wires in the core. These conductors are better replacement for ACSR conductors where corrosive conditions are severe.

CONSTRUCTION:

Aluminium 1350–H19 Wires, concentrically stranded over a central wire/core of Aluminium clad steel.



FEATURES:

- Good mechanical properties
- Improved electrical characteristics
- Excellent corrosion resistance
- Better Sag properties

* Current capacity based on referenced conductor temperature, 0.56 m/s wind, 0 m Elevation, 0.45 Emissivity, 0.80 absorptivity, 45°C Ambient temperature, 1045 W/m² Solar radiation.

ALUMINIUM CONDUCTOR ALUMINIUM CLAD STEEL REINFORCED (ACSR/AW) ASTM B 549



CODE WORD	CONDUCTOR SIZE	SECTIONAL AREA	CLASS	STRANDING				DIAMETER OF COMPLETE CONDUCTOR	RATED STRENGTH	WEIGHT	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
				NO. OF WIRES		WIRE DIAMETER						@ 75°C	@ 85°C
				ALUMINIUM	STEEL	ALUMINIUM	STEEL						
Thrasher/AW	(CMIL) 2324300	(MM²) 1178	AA	(NO.) 76	(NO.) 19	(MM) 4.43	(MM) 2.07	(MM) 45.79	(KN) 246	(KG/KM) 3679	(Ω/KM) 0.0243	(AMPERE) 945	(AMPERE) 1256
Kiwi/AW	2176100	1103	AA	72	7	4.41	2.94	44.10	218	3366	0.0260	914	1210
Bluebird/AW	2173100	1101	AA	84	19	4.07	2.44	44.76	262	3627	0.0258	922	1221
Chukar/AW	1795200	910	AA	84	19	3.70	2.22	40.70	220	2996	0.0313	839	1100
Falcon/AW	1609800	816	AA	54	19	4.36	2.62	39.26	236	2917	0.0345	797	1042
Lapwing/AW	1601200	811	AA	45	7	4.78	3.18	38.22	186	2598	0.0349	788	1028
Parrot/AW	1528200	774	AA	54	19	4.25	2.55	38.25	224	2768	0.0363	776	1012
Nuthatch/AW	1520500	770	AA	45	7	4.65	3.10	37.20	177	2467	0.0369	766	996
Plover/AW	1448900	734	AA	54	19	4.14	2.48	37.24	212	2625	0.0383	755	982
Bobolink/AW	1440200	730	AA	45	7	4.53	3.02	36.24	167	2336	0.0389	745	967
Martin/AW	1367700	693	AA	54	19	4.02	2.41	36.17	201	2478	0.0406	732	949
Dipper/AW	1360100	689	AA	45	7	4.40	2.93	35.19	158	2207	0.0412	723	935
Pheasant/AW	1287700	652	AA	45	19	3.90	2.34	35.10	189	2333	0.0513	651	842
Bittern/AW	1280600	649	AA	45	7	4.27	2.85	34.17	149	2078	0.0438	700	903
Skylark/AW	1275400	646	AA	36	1	4.78	4.78	33.46	114	1893	0.0441	689	886
Grackle/AW	1206700	611	AA	54	19	3.77	2.27	33.97	179	2188	0.0461	677	881
Bunting/AW	1201000	609	AA	45	7	4.14	2.76	33.12	139	1948	0.0466	660	872
Finch/AW	1127800	571	AA	54	19	3.65	2.19	32.85	167	2043	0.0492	653	848
Bluejay/AW	1120500	568	AA	45	7	4.00	2.66	31.98	130	1819	0.0499	634	837
Curlew/AW	1046100	530	AA	54	7	3.51	3.51	31.59	158	1896	0.0529	626	813
Ortolan/AW	1040000	527	AA	45	7	3.85	2.57	30.81	121	1688	0.0538	608	801
Tanager/AW	1035800	525	AA	36	1	4.30	4.30	30.10	94	1537	0.0544	615	784
Cardinal/AW	966100	490	AA	54	7	3.38	3.38	30.42	146	1752	0.0571	599	777
Rail/AW	960400	487	AA	45	7	3.70	2.47	29.61	113	1558	0.0583	589	764
Catbrid/AW	956600	485	AA	36	1	4.14	4.14	28.98	87	1420	0.0587	590	750
Canary/AW	911400	462	AA	54	7	3.28	3.28	29.52	138	1653	0.0606	549	750
Ruddy/AW	906100	459	AA	45	7	3.59	2.40	28.74	107	1470	0.0619	542	738
Mallary/AW	812700	412	AA	30	19	4.14	2.48	28.96	165	1726	0.0666	564	717
Condor/AW	805000	408	AA	54	7	3.08	3.08	27.72	124	1458	0.0687	471	696
Tern/AW	800400	406	AA	45	7	3.38	2.25	27.03	96	1298	0.0699	538	687
Drake/AW	807600	409	AA	26	7	4.44	3.45	28.11	136	1549	0.0679	555	704
Cuckoo/AW	805000	408	AA	24	7	4.62	3.08	27.72	122	1460	0.0687	551	698

ALUMINIUM CONDUCTOR ALUMINIUM CLAD STEEL REINFORCED (ACSR/AW) ASTM B 549



CODE WORD	CONDUCTOR SIZE	SECTIONAL AREA	CLASS	STRANDING				DIAMETER OF COMPLETE CONDUCTOR	RATED STRENGTH	WEIGHT	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
				NO. OF WIRES		WIRE DIAMETER						@ 75°C	@ 85°C
				ALUMINIUM	STEEL	ALUMINIUM	STEEL						
	(CMIL)	(MM ²)		(NO.)	(NO)	(MM)	(MM)	(MM)	(KN)	(KG/KM)	(Ω/KM)	(AMPERE)	(AMPERE)
Coot/AW	797200	404	AA	36	1	3.77	3.77	26.39	74	1183	0.0708	532	671
Redwing/AW	730900	370	AA	30	19	3.92	2.35	27.43	149	1552	0.0740	531	672
Starling/AW	727400	369	AA	26	7	4.21	3.28	26.68	122	1393	0.0755	524	661
Stilt/AW	725000	367	AA	24	7	4.39	2.92	26.32	110	1314	0.0761	521	657
Gannet/AW	676600	343	AA	26	7	4.07	3.16	25.76	116	1298	0.0809	504	635
Flamingo/AW	675400	342	AA	24	7	4.23	2.82	25.38	103	1225	0.0820	499	629
Egret/AW	650200	329	AA	30	19	3.70	2.22	25.90	133	1381	0.0833	498	628
Sooter/AW	650500	330	AA	30	7	3.70	3.70	25.90	130	1391	0.0831	498	628
Grosbeak/AW	646100	327	AA	26	7	3.97	3.09	25.15	110	1238	0.0850	490	617
Rook/AW	644000	326	AA	24	7	4.14	2.76	24.84	98	1168	0.0856	487	613
Swift/AW	637700	323	AA	36	1	3.38	3.38	23.66	61	946	0.0881	471	590
Kingbird/AW	639400	324	AA	18	1	4.78	4.78	23.90	67	1006	0.0873	480	602
Teal/AW	618400	313	AA	30	19	3.61	2.16	25.24	127	1314	0.0875	483	608
Wood Duck/AW	618800	314	AA	30	7	3.61	3.61	25.27	126	1323	0.0873	484	609
Squab/AW	614600	311	AA	26	7	3.87	3.01	24.51	105	1177	0.0895	476	598
Peacock/AW	612700	310	AA	24	7	4.03	2.69	24.19	93	1112	0.0903	473	593
Eagle/AW	569700	289	AA	30	7	3.46	3.46	24.22	119	1217	0.0951	461	579
Dove/AW	564800	286	AA	26	7	3.72	2.89	23.55	97	1083	0.0968	455	570
Parakeet/AW	564000	286	AA	24	7	3.87	2.58	23.22	86	1022	0.0979	452	565
Ospray/AW	559000	283	AA	18	1	4.47	4.47	22.35	59	880	0.0998	445	555
Hen/AW	487900	247	AA	30	7	3.20	3.20	22.40	104	1043	0.1112	422	527
Hawk/AW	484600	246	AA	26	7	3.44	2.68	21.80	84	929	0.1132	417	519
Flicker/AW	483000	245	AA	24	7	3.58	2.39	21.49	74	877	0.1145	413	515
Pelican/AW	479600	243	AA	18	1	4.14	4.14	20.70	51	755	0.1164	407	506
Lark/AW	406000	206	AA	30	7	2.92	2.92	20.44	87	869	0.1335	380	472
Ibbs/AW	403300	204	AA	26	7	3.14	2.44	19.88	70	774	0.1359	375	465
Brant/AW	403000	204	AA	24	7	3.27	2.18	19.62	63	731	0.1372	373	462
Chickadee/AW	399200	202	AA	18	1	3.77	3.77	18.85	44	628	0.1404	366	453
Oriole/AW	343700	174	AA	30	7	2.69	2.69	18.83	74	737	0.1573	346	428
Linnet/AW	341300	173	AA	26	7	2.89	2.25	18.31	60	655	0.1604	341	421
Merlin/AW	337800	171	AA	18	1	3.47	3.47	17.35	38	531	0.1657	333	409
Ostrich/AW	304800	154	AA	26	7	2.73	2.12	17.28	54	583	0.1798	319	393

ALUMINIUM CONDUCTOR ALUMINIUM CLAD STEEL REINFORCED (ACSR/AW) ASTM B 549



CODE WORD	CONDUCTOR SIZE	SECTIONAL AREA	CLASS	STRANDING				DIAMETER OF COMPLETE CONDUCTOR	RATED STRENGTH	WEIGHT	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
				NO. OF WIRES		WIRE DIAMETER						@ 75°C	@ 85°C
				ALUMINIUM	STEEL	ALUMINIUM	STEEL						
Partridge/AW	271200	137	AA	26	7	2.57	2.00	16.28	48	519	0.2029	298	365
Waxwing/AW	268400	136	AA	18	1	3.09	3.09	15.45	30	421	0.2089	291	356
4/0 Penguin/AW	215400	109	AA,A	6	1	4.77	4.77	14.31	34	412	0.2525	244	297
Cochin/AW	223000	113	AA(+)	12	7	3.37	3.37	16.85	88	710	0.2252	265	326
Brahma/AW	220700	112	AA(+)	16	19	2.86	2.48	18.12	121	894	0.2157	274	338
Dorking/AW	201900	102	AA(+)	12	7	3.2	3.20	16.00	81	641	0.2498	250	306
Dotterel/AW	187100	95	AA(+)	12	7	3.08	3.08	15.40	75	594	0.2696	239	292
3/0 Pigeon/ AW	170700	87	AA,A	6	1	4.25	4.25	12.75	28	326	0.3181	213	259
Guinea/AW	168000	85	AA(+)	12	7	2.92	2.92	14.60	68	534	0.3000	224	274
3/0 (5/2) AWAC	159000	81	AA(+)	5	2	4.44	4.44	13.32	43	418	0.3252	212	258
3/0 (12/7) AWAC	151300	77	AA(+)	4	3	4.78	4.78	14.34	63	555	0.3192	217	265
Leghorn/AW	142700	72	AA(+)	12	7	2.69	2.69	13.45	58	452	0.3535	204	248
2/0 Quail/AW	135200	69	AA,A	6	1	3.78	3.78	11.34	23	259	0.4021	185	224
2/0 (5/2) AWAC	125700	64	AA(+)	5	2	3.95	3.95	11.85	36	332	0.4130	184	223
2/0 (4/3) AWAC	120200	61	AA(+)	4	3	4.25	4.25	12.75	53	441	0.4021	189	230
Minorca/AW	117300	59	AA(+)	12	7	2.44	2.44	12.20	48	372	0.4296	182	220
Raven/AW	107700	55	AA,A	6	1	3.37	3.37	10.11	19	205	0.5059	162	195
Petrel/AW	107800	55	AA(+)	12	7	2.34	2.34	11.70	44	342	0.4671	172	209
2/0 (3/4) AWAC	113000	57	AA(+)	3	4	4.63	4.63	13.89	73	588	0.3919	195	237
1/0 (5/2) AWAC	99700	51	AA(+)	5	2	3.52	3.52	10.56	29	263	0.5174	161	195
1/0 (4/3) AWAC	95500	48	AA(+)	4	3	3.79	3.79	11.37	43	348	0.50570	165	200
1 Robin/AW	85400	43	AA,A	6	1	3.00	3.00	9.00	15	162	0.6383	141	169
Grouse/AW	82700	42	AA(+)	8	1	2.54	4.24	9.32	22	205	0.6340	142	171
1/0 (3/4) AWAC	89300	45	AA(+)	3	4	4.13	4.13	12.39	61	466	0.4925	170	206
1 (5/2) AWAC	79000	40	AA(+)	5	2	3.13	3.13	9.39	24	208	0.6544	140	169
1 (4/3) AWAC	75200	38	AA(+)	4	3	3.37	3.37	10.11	36	277	0.6396	144	173
2 Sparate/AW	67600	34	AA,A	7	1	2.47	3.30	8.24	16	149	0.7850	125	150
2 Sparrow/AW	67100	34	AA,A	6	1	2.67	2.67	8.01	12	129	0.8059	123	147
1/0 (2/5) AWAC	80800	41	AA(+)	2	5	4.58	4.58	13.74	87	640	0.4722	177	216
1 (3/4) AWAC	71200	36	AA(+)	3	4	3.67	3.67	11.01	50	369	0.6237	148	179
2 (5/2) AWAC	62400	32	AA(+)	5	2	2.79	2.79	8.37	19	165	0.8236	122	147
2 (4/3) AWAC	60100	31	AA(+)	4	3	3.00	3.00	9.00	29	219	0.8070	125	150

ALUMINIUM CONDUCTOR ALUMINIUM CLAD STEEL REINFORCED (ACSR/AW) ASTM B 549



CODE WORD	CONDUCTOR SIZE	SECTIONAL AREA	CLASS	STRANDING				DIAMETER OF COMPLETE CONDUCTOR	RATED STRENGTH	WEIGHT	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
				NO. OF WIRES		WIRE DIAMETER						@ 75°C	@ 85°C
				ALUMINIUM	STEEL	ALUMINIUM	STEEL						
3 Swallow/AW	53900	27.3	A	6	1	2.38	2.38	7.14	10	103	1.0142	107	127
1 (2/5) AWAC	64600	32.7	AA(+)	2	5	4.08	4.08	12.24	73	507	0.5950	155	187
2 (3/4) AWAC	56500	28.6	AA(+)	3	4	3.27	3.27	9.81	43	293	0.7856	129	155
3 (5/2) AWAC	49900	25.3	AA(+)	5	2	2.48	2.48	7.44	16	131	1.0423	106	127
3 (4/3) AWAC	47200	23.9	AA(+)	4	3	2.68	2.68	8.04	23	174	1.0113	110	131
4 Swanate/ AW	43000	21.8	AA,A	7	1	1.96	2.61	6.53	10	93	1.2473	95	113
4 Swan/AW	42700	21.6	AA,A	6	1	2.12	2.12	6.36	8	81	1.2783	93	111
2 (2/5) AWAC	51000	25.8	AA(+)	2	5	3.63	3.63	10.89	60	402	0.7516	135	163
3 (3/4) AWAC	44100	22.3	AA(+)	3	4	2.91	2.91	8.73	34	232	0.9920	112	135
4 (5/2) AWAC	39500	20.0	AA(+)	5	2	2.21	2.21	6.63	12	104	1.3126	93	110
4 (4/3) AWAC	37600	19.1	AA(+)	4	3	2.38	2.38	7.14	19	138	1.2876	95	113
3 (2/5) AWAC	39900	20.2	AA(+)	2	5	3.23	3.23	9.69	50	320	0.9493	117	141
4 (3/4) AWAC	35100	17.8	AA(+)	3	4	2.6	2.60	7.80	27	185	1.2426	98	117
4 (2/5) AWAC	32300	16.4	AA(+)	2	5	2.88	2.88	8.64	40	253	1.1941	102	123



POWERLINE

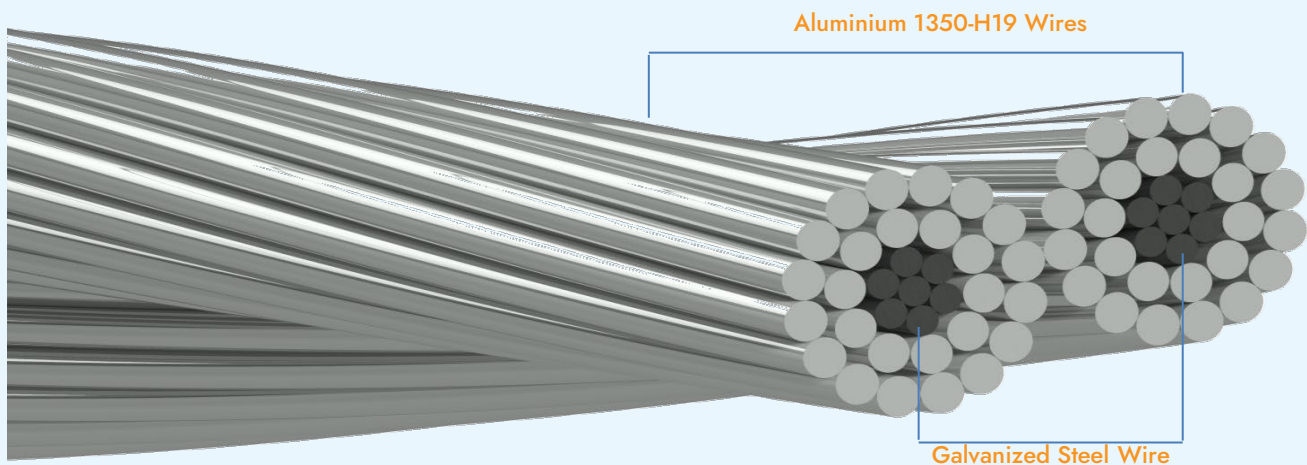
ALUMINIUM

CONDUCTOR STEEL REINFORCED, TWISTED PAIR CONDUCTOR (ACSR/TP)

These conductors are composed of two identical bare ACSR conductors twisted together with a left-hand lay. This gives the conductor a spiral shape which allows the conductor to protect against the effect of aeolian vibration and ice galloping to which many transmission and distribution projects are exposed.

CONSTRUCTION:

ACSR/TP consists of two ACSR conductors with long lay lengths twisted around each other.



FEATURES:

- Resist Aeolian vibration and galloping due to wind and ice
- Twisted shape offers low torsional stiffness.
- ACSR/TP conductors permit higher line tensions, which help reduce line costs by permitting lower sag and/or longer spans.

* Current capacity based on referenced conductor temperature, 0.56 m/s wind, 0 m Elevation, 0.45 Emissivity, 0.80 absorptivity, 45°C Ambient temperature, 1045 W/m² Solar radiation.

ALUMINIUM CONDUCTOR STEEL REINFORCED, TWISTED PAIR CONDUCTOR (ACSR/TP) ASTM B 911



CODE NAME	CONDUCTOR SIZE	SECTIONAL AREA	STRANDING		OUTER DIMENSIONS			EQUIVALENT DIAMETER	WEIGHT			RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
			ALUMINIUM	STEEL	MINOR	X	MAJOR		ALUMINIUM	STEEL	CONDUCTOR			@ 75°C	@ 85°C
	AWG or KCMIL	(MM ²)	(NO. x mm)	(NO. x mm)	(MM)			(MM)	(KG/KM)	(KG/KM)	(KG/KM)	(KN)	(Ω/KM)	(AMPERE)	(AMPERE)
Swan / TP	1	49.3	6 x 2.11	1 x 2.11	6.35	x	12.70	10.39	116	55	171	16.5	0.66	152	183
Swanate / TP	1	53.0	7 x 1.96	1 x 2.61	6.53	x	13.06	10.68	88	84	171	21.0	0.65	154	186
Swallow / TP	1/0	62.3	6 x 2.38	1 x 2.38	7.14	x	14.28	11.68	147	69	216	20.5	0.53	175	211
Sparrow / TP	2/0	78.5	6 x 2.67	1 x 2.67	8.03	x	16.05	13.13	184	87	271	25.2	0.42	200	244
Sparate / TP	2/0	84.4	7 x 2.47	1 x 3.29	8.26	x	16.51	13.51	184	133	317	32.3	0.41	202	246
Robin / TP	3/0	98.9	6 x 3.00	1 x 3.00	8.99	x	17.98	14.71	232	110	342	31.7	0.33	229	280
Raven / TP	4/0	124.9	6 x 3.37	1 x 3.37	10.11	x	20.22	16.54	293	139	432	39.0	0.26	263	323
Quail / TP	266.2	157.3	6 x 3.78	1 x 3.78	11.35	x	22.71	18.58	325	175	500	47.2	0.21	300	371
Pigeon / TP	335.6	198.3	6 x 4.24	1 x 4.24	12.75	x	25.50	20.86	466	220	686	58.7	0.16	343	426
Penguin / TP	423.2	250.2	6 x 4.77	1 x 4.77	14.30	x	28.60	23.39	588	278	866	74.3	0.13	391	490
Jaeger / TP	456.4	244.1	18 x 2.86	1 x 2.86	14.30	x	28.60	23.39	637	100	737	53.8	0.12	403	504
Waxwing / TP	533.6	285.2	18 x 3.09	1 x 3.09	15.47	x	30.94	25.31	745	117	862	60.9	0.11	440	553
Spoonbill / TP	533.6	296.8	22 x 2.79	7 x 1.55	15.85	x	31.70	25.93	748	207	955	77.4	0.11	442	557
Scaup / TP	533.6	305.3	24 x 2.67	7 x 1.78	16.08	x	32.16	26.30	748	274	1022	89.0	0.11	443	559
Partridge / TP	533.6	314.4	26 x 2.57	7 x 2.00	16.31	x	32.61	26.68	748	344	1092	100.5	0.10	445	562
Junco / TP	533.6	333.4	30 x 2.39	7 x 2.39	16.76	x	33.53	27.43	750	493	1242	123.7	0.10	449	568
Ostrich / TP	600	353.4	26 x 2.72	7 x 2.12	17.27	x	34.54	28.26	841	386	1228	113.0	0.09	475	603
Merlin / TP	672.8	359.8	18 x 3.47	1 x 3.47	17.35	x	34.70	28.38	939	147	1086	77.4	0.08	501	635
Trogon / TP	672.8	364.5	20 x 3.29	7 x 1.46	17.58	x	35.15	28.76	943	184	1126	84.5	0.08	501	636
Woodcock / TP	672.8	374.6	22 x 3.14	7 x 1.74	17.81	x	35.61	29.13	942	262	1204	97.0	0.08	502	639
Widgeon / TP	672.8	385.1	24 x 3.00	7 x 2.00	18.03	x	36.07	29.50	944	345	1289	111.2	0.08	504	642
Linnet / TP	672.8	396.1	26 x 2.88	7 x 2.24	18.29	x	36.58	29.92	944	433	1376	125.4	0.08	506	645
Oriole / TP	672.8	420.5	30 x 2.69	7 x 2.69	18.82	x	37.64	30.79	945	621	1567	153.9	0.08	510	651
Chickadee / TP	795	425.2	18 x 3.77	1 x 3.77	18.87	x	37.74	30.87	1109	174	1283	88.5	0.07	549	701
Ptarmigan / TP	795	430.8	20 x 3.58	7 x 1.59	19.10	x	38.20	31.25	1114	218	1332	98.8	0.07	550	703
Stork / TP	795	442.3	22 x 3.41	7 x 1.89	19.36	x	38.71	31.66	1113	309	1423	114.8	0.07	551	705
Brant / TP	795	455.1	24 x 3.26	7 x 2.17	19.61	x	39.22	32.08	1114	408	1522	129.9	0.07	553	709
Ibis / TP	795	468.0	26 x 3.13	7 x 2.44	19.89	x	39.78	32.54	1115	512	1626	145.0	0.07	555	712
Lark / TP	795	496.8	30 x 2.92	7 x 2.92	20.47	x	40.95	33.49	1117	734	1851	180.6	0.07	559	719
Pelican / TP	954	510.3	18 x 4.13	1 x 4.13	20.68	x	41.35	33.83	1331	209	1540	105.0	0.06	606	780
Tailorbird / TP	954	516.6	20 x 3.92	7 x 1.74	20.90	x	41.81	34.20	1337	261	1598	116.5	0.06	606	781

ALUMINIUM CONDUCTOR STEEL REINFORCED, TWISTED PAIR CONDUCTOR (ACSR/TP) ASTM B 911



CODE NAME	CONDUCTOR SIZE	SECTIONAL AREA	STRANDING		OUTER DIMENSIONS			EQUIVALENT DIAMETER	WEIGHT			RATED STREIGHT	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
			ALUMINIUM	STEEL	MINOR	X	MAJAOR		ALUMINIUM	STEEL	CONDUCTOR			@ 75°C	@ 85°C
	AWG or KCMIL	(MM ²)	(NO. x mm)	(NO. x mm)	(MM)			(MM)	(KG/KM)	(KG/KM)	(KG/KM)	(KN)	(Ω/KM)	(AMPERE)	(AMPERE)
Toucan / TP	954	530.6	22 x 3.73	7 x 2.07	21.18	x	42.37	34.66	1337	371	1708	135.2	0.06	607	783
Flicker / TP	954	546.2	24 x 3.58	7 x 2.38	21.49	x	42.98	35.15	1336	490	1826	153.0	0.06	610	788
Hawk / TP	954	561.7	26 x 3.43	7 x 2.67	21.79	x	43.59	35.65	1338	615	1952	173.5	0.06	613	792
Hen / TP	954	596.2	30 x 3.20	7 x 3.20	22.43	x	44.86	36.69	1340	881	2222	211.7	0.06	616	799
Heron / TP	1000	624.9	30 x 3.27	7 x 3.27	22.96	x	45.92	37.57	1405	923	2329	222.4	0.06	632	821
Nightingale/TP	1034	552.5	18 x 4.30	1 x 4.30	21.54	x	43.08	35.24	1442	226	1668	113.0	0.05	633	818
Creeper / TP	1034	559.6	20 x 4.08	7 x 1.81	21.79	x	43.59	35.65	1449	283	1732	126.3	0.05	634	820
Osprey / TP	1113	595.1	18 x 4.46	1 x 4.46	22.33	x	44.65	36.53	1552	244	1796	121.9	0.05	659	854
Tody / TP	1113	602.9	20 x 4.23	7 x 1.88	22.61	x	45.21	36.98	1560	304	1864	136.1	0.05	658	853
Sapsucker / TP	1113	619.0	22 x 4.03	7 x 2.24	22.89	x	45.77	37.44	1560	432	1992	156.6	0.05	661	859
Parakeet / TP	1113	637.2	24 x 3.86	7 x 2.57	23.22	x	46.43	37.98	1560	571	2131	176.2	0.05	664	864
Dove / TP	1113	655.8	26 x 3.71	7 x 2.89	23.55	x	47.09	38.52	1559	718	2277	201.1	0.05	665	867
Eagle / TP	1113	695.6	30 x 3.45	7 x 3.45	24.21	x	48.41	39.60	1563	1028	2591	247.3	0.05	669	874
Kittiwake / TP	1192	637.8	18 x 4.62	1 x 4.62	23.11	x	46.23	37.81	1663	261	1924	130.8	0.05	683	888
Skua / TP	1210	655.3	20 x 4.41	7 x 1.96	23.57	x	47.14	38.56	1696	331	2027	147.7	0.05	689	898
Peacock / TP	1210	692.9	24 x 4.03	7 x 2.69	24.21	x	48.41	39.60	1695	621	2317	192.2	0.05	693	906
Squab / TP	1210	712.6	26 x 3.87	7 x 3.01	24.54	x	49.07	40.14	1697	779	2476	216.2	0.05	694	908
Wood Duck/ TP	1210	756.1	30 x 3.60	7 x 3.60	25.25	x	50.50	41.31	1699	1117	2817	257.1	0.05	699	918
Teal / TP	1210	752.8	30 x 3.60	19 x 2.16	25.25	x	50.50	41.31	1699	1094	2793	266.9	0.05	699	918
Swift / TP	1272	662.3	36 x 3.37	1 x 3.37	23.62	x	47.24	38.65	1774	139	1914	122.8	0.04	705	919
Kingbird / TP	1272	680.5	18 x 4.77	1 x 4.77	23.88	x	47.75	39.06	1773	279	2052	139.7	0.04	706	921
Turacos / TP	1272	688.8	20 x 4.52	7 x 2.01	24.16	x	48.31	39.52	1783	348	2131	154.8	0.04	707	924
Rook / TP	1272	728.1	24 x 4.13	7 x 2.75	24.82	x	49.63	40.60	1624	652	2277	201.1	0.04	712	932
Grosbeak / TP	1272	749.4	26 x 3.97	7 x 3.08	25.15	x	50.29	41.14	1616	820	2436	224.2	0.04	713	935
Scoter / TP	1272	794.9	30 x 3.69	7 x 3.69	25.88	x	51.77	42.34	1428	1175	2603	270.5	0.04	718	945
Egret / TP	1272	791.6	30 x 3.69	19 x 2.2	25.88	x	51.77	42.34	1786	1151	2937	280.2	0.04	718	945
Siskin / TP	1333.2	722.6	20 x 4.63	7 x 2.06	24.74	x	49.48	40.47	1868	365	2233	162.8	0.04	724	949
Flamingo / TP	1333.2	763.4	24 x 4.23	7 x 2.82	25.40	x	50.80	41.55	1868	684	2552	211.7	0.04	729	958
Gannet / TP	1333.2	785.3	26 x 4.06	7 x 3.16	25.76	x	51.51	42.14	1869	859	2728	234.9	0.04	730	961
Dunlin / TP	1431	774.8	20 x 4.80	7 x 2.13	25.60	x	51.21	41.89	2006	391	2397	174.4	0.04	751	988
Stilt / TP	1431	819.4	24 x 4.38	7 x 2.92	26.31	x	52.63	43.05	2005	734	2739	226.9	0.04	757	999
Starling / TP	1431	843.2	26 x 4.21	7 x 3.27	26.70	x	53.39	43.67	2006	922	2928	252.7	0.04	759	1002

ALUMINIUM CONDUCTOR STEEL REINFORCED, TWISTED PAIR CONDUCTOR (ACSR/TP) ASTM B 911



CODE NAME	CONDUCTOR SIZE	SECTIONAL AREA	STRANDING		OUTER DIMENSIONS			EQUIVALENT DIAMETER	WEIGHT			RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
			ALUMINIUM	STEEL	MINOR	X	MAJOR		ALUMINIUM	STEEL	CONDUCTOR			@ 75°C	@ 85°C
	AWG or KCMIL	(MM ²)	(NO. x mm)	(NO. x mm)	(MM)			(MM)	(KG/KM)	(KG/KM)	(KG/KM)	(KN)	(Ω/KM)	(AMPERE)	(AMPERE)
Redwing / TP	1431	889.9	30 x 3.92	19x 2.35	27.46	x	54.92	44.92	2011	1292	3303	307.8	0.04	764	1012
Coot / TP	1590	828.0	36 x 3.77	1 x 3.77	26.42	x	52.83	43.22	2217	174	2391	148.6	0.04	791	1043
Macaw / TP	1590	847.3	42 x 3.49	7 x 1.94	26.80	x	53.59	43.84	2228	324	2552	178.8	0.04	792	1047
Turbit / TP	1590	861.6	20 x 5.06	7 x 2.25	27.00	x	54.00	44.17	2229	435	2664	193.9	0.04	793	1049
Tern / TP	1590	861.2	45 x 3.37	7 x 2.25	27.00	x	54.00	44.17	2229	435	2664	196.6	0.04	793	1049
Puffin / TP	1590	884.8	22 x 4.82	7 x 2.68	27.36	x	54.71	44.75	2229	618	2847	220.6	0.04	794	1052
Cuckoo / TP	1590	910.0	24 x 4.62	7 x 3.08	27.74	x	55.47	45.38	2229	815	3044	248.2	0.04	799	1060
Condor / TP	1590	909.6	54 x 3.08	7 x 3.08	27.74	x	55.47	45.38	2229	815	3044	250.9	0.04	799	1060
Drake / TP	1590	937.2	26 x 4.44	7 x 3.45	28.14	x	56.29	46.04	2228	1025	3253	280.2	0.04	800	1063
Mallard / TP	1590	989.6	30 x 4.13	19x 2.48	28.96	x	57.91	47.37	2232	1439	3671	341.6	0.03	806	1074
Surfbird / TP	1749	947.4	20 x 5.31	7 x 2.36	28.32	x	56.64	46.33	2452	478	2930	210.8	0.03	831	1105
Turnstone / TP	1800	974.9	20 x 5.38	7 x 2.39	28.73	x	57.46	47.00	2522	493	3015	214.4	0.03	840	1120
Ruddy / TP	1800	974.9	45 x 3.59	7 x 2.39	28.73	x	57.46	47.00	2522	493	3015	217.1	0.03	840	1120
Canary / TP	1800	1030	54 x 3.27	7 x 3.27	29.52	x	59.03	48.29	2523	923	3446	283.8	0.03	847	1132
Catbird / TP	1908	993.8	36 x 4.13	1 x 4.13	28.96	x	57.91	47.37	2661	209	2870	176.2	0.03	864	1153
Phoenix / TP	1908	977.3	42 x 3.82	7 x 0.98	29.34	x	58.67	48.00	2979	83	3062	208.2	0.03	864	1155
Corncrake/ TP	1908	1033.7	20 x 5.54	7 x 2.46	29.59	x	59.18	48.41	2674	522	3196	227.7	0.03	867	1160
Rail / TP	1908	1033.7	45 x 3.69	7 x 2.46	29.59	x	59.18	48.41	2674	522	3196	230.4	0.03	867	1160
Towhee / TP	1908	1052	48 x 3.58	7 x 2.78	29.85	x	59.69	48.83	2674	667	3341	253.5	0.03	868	1162
Redbird / TP	1908	1092	24 x 5.06	7 x 3.37	30.38	x	60.76	49.70	2674	979	3653	298.0	0.03	874	1173
Cardinal / TP	1908	1091.9	54 x 3.37	7 x 3.37	30.38	x	60.76	49.70	2674	979	3653	300.7	0.03	870	1167
Canvasback /TP	1908	1187.0	30 x 4.52	19 x 2.71	31.70	x	63.42	51.86	2680	1726	4406	410.1	0.03	878	1185
Snowbird / TP	2067	1101.8	42 x 3.98	7 x 2.21	30.56	x	61.11	49.99	2897	421	3318	226.0	0.03	900	1209
Ortolan / TP	2067	1119.1	45 x 3.84	7 x 2.56	30.79	x	61.57	50.36	2898	565	3463	246.4	0.03	901	1211
Whooper / TP	2067	1139.2	48 x 3.72	7 x 2.89	31.06	x	62.13	50.82	2898	721	3619	274.0	0.03	902	1214
Curlew / TP	2067	1182.4	54 x 3.51	7 x 3.51	31.62	x	63.25	51.74	2897	1060	3957	326.1	0.03	904	1220
Avocet / TP	2226	1186.1	42 x 4.13	7 x 2.29	31.70	x	63.40	51.86	3120	453	3573	241.1	0.03	930	1256
Bluejay / TP	2226	1206.	45 x 3.99	7 x 2.66	31.98	x	63.96	52.32	3119	610	3729	265.1	0.03	932	1259
Bullfinch / TP	2226	1227.	48 x 3.86	7 x 3.01	32.23	x	64.47	52.73	3119	778	3897	291.8	0.03	933	1262
Finch / TP	2226	1271.5	54 x 3.64	19 x 2.18	32.84	x	65.68	53.73	3133	1119	4253	347.9	0.03	935	1268



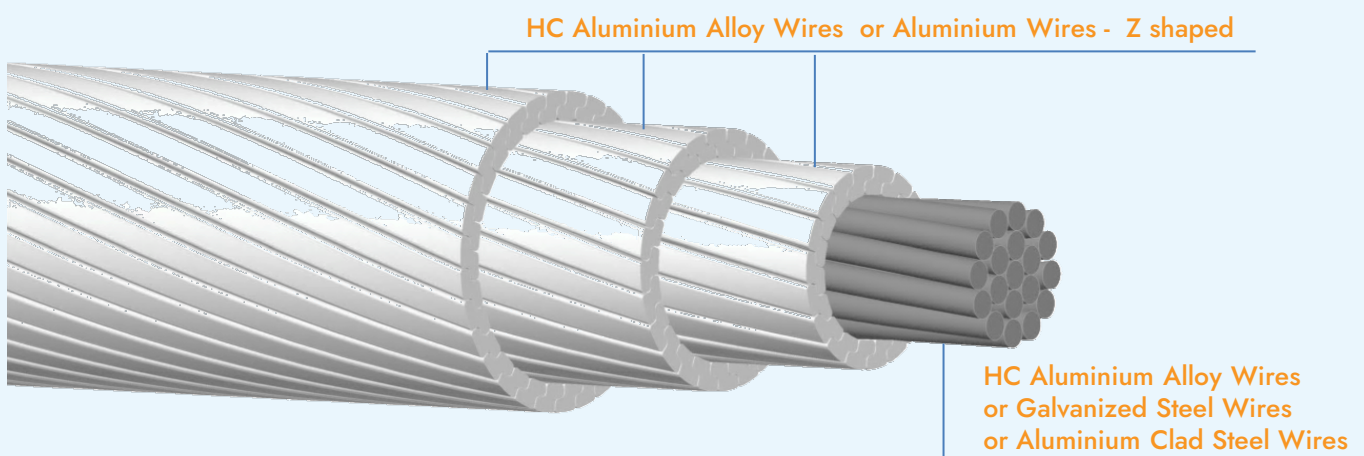
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"POWER-ZAD" CONDUCTOR

This conductor is a concentrically stranded conductor composed of one or more layers of High Conductivity Aluminium alloy wire or Aluminium Wires of Round or Z-shaped stranded over a central core of round shaped HC Aluminium Alloy Wires or Galvanized Steel Wires or Aluminium Clad Steel Wires. The external surface is smoother than that of round wires, can reduce the load against climatic influences and significantly reduce aerodynamic drag and the dance of wires.

CONSTRUCTION:

Aluminium or Aluminium Alloy Wires of Round / Z- shaped, concentrically stranded over a central core of Round Wires



FEATURES:

- Reduced drag coefficient (Aerodynamic Drag).
- Greater useful cross section
- Improved shock absorption & Self-damping
- Superior behavior in ice and snow climates
- The central core is filled with Superior quality grease (Optional)

* Current capacity based on referenced conductor temperature, 0.56 m/s wind, 0 m Elevation, 0.45 Emissivity, 0.80 absorptivity, 45°C Ambient temperature, 1045 W/m² Solar radiation.

ALL ALUMINIUM ALLOY CONDUCTOR - Type AAAC-Z

as per NBN C 34-100



CODE	TOTAL SECTIONAL AREA OF CONDUCTOR	SECTIONAL AREA OF ROUND WIRES	SECTIONAL AREA OF Z-SHAPED WIRES	ROUND WIRES		Z-SHAPED WIRES			OVERALL DIAMETER	MASS	MASS OF GREASE		RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
				NUMBERS	DIAMETER	NO. OF LAYERS	NO. OF WIRES	EQ. ROUND DIA.			MIN	MAX			@ 75°C	@ 85°C
	MM ²	MM ²	MM ²		MM			MM	MM	KG/KM	KG/KM	KG/KM	KN	Ω/KM	(AMPERE)	(AMPERE)
177-1Z	179.27	59.87	119.4	7	3.30	1	12	3.56	16.50	495.0	10.5	15.8	57.07	0.1858	315	387
242-2Z	246.02	40.08	205.94	7	2.70	2	30	2.96	18.90	681.0	7.0	10.5	79.96	0.1359	376	465
261-2Z	265.70	43.10	222.6	7	2.80	2	30	3.07	19.60	736.0	7.5	11.3	86.35	0.1258	393	487
301-2Z	306.29	49.48	256.81	7	3.00	2	30	3.30	21.00	848.0	8.6	12.9	99.54	0.1092	426	530
346-2Z	351.44	56.3	295.14	7	3.20	2	30	3.54	22.40	973.0	9.8	14.7	111.27	0.0951	460	576
366-2Z	372.26	59.87	312.38	7	3.30	2	30	3.64	23.10	1031.0	10.5	15.8	117.86	0.0898	475	596
255-2Z	461.73	125.5	336.23	19	2.90	2	42	3.19	26.10	1275.0	24.1	36.2	150.06	0.0722	538	680
504-2Z	511.25	138.82	372.44	19	3.05	2	42	3.36	27.45	1412.0	26.7	40.1	166.16	0.0652	569	722
538-2Z	545.83	148.07	397.76	19	3.15	2	42	3.47	28.35	1508.0	28.2	42.3	177.39	0.0611	590	750
635-1Z	640.7	355.98	284.72	37	3.50	1	24	3.89	31.50	1770.0	70.3	105.5	205.38	0.0521	645	827
648-2Z	657.8	177.62	480.18	19	3.45	2	42	3.82	31.05	1817.0	34.2	51.3	208.98	0.0507	653	836
666-2Z	675.58	182.8	492.78	19	3.50	2	42	3.87	31.50	1866.0	35.2	52.8	214.64	0.0494	662	849
705-2Z	715.2	193.4	521.81	19	3.60	2	48	3.72	32.40	1976.0	37.2	55.8	225.29	0.0466	683	877
707-2Z	717.03	193.4	523.63	19	3.60	2	42	3.98	32.40	1981.0	37.2	55.8	225.86	0.0465	684	878
928-3Z	943.67	167.47	776.2	19	3.35	3	72	3.70	36.85	2607.0	32.2	48.3	298.93	0.0353	788	1025

NOTE:

Current capacity based on referenced conductor temperature, 0.56 m/s wind, 0 m Elevation, 0.45 Emissivity, 0.80 absorptivity, 45°C Ambient temperature, 1045 W/m² Solar radiation

Customized conductor sizes based on customer's requirement can also be designed.

ALUMINIUM CONDUCTOR STEEL REINFORCED

Type ACSR-Z



NOMINAL AREA	STEEL WIRE		ROUND ALU. WIRES		Z-SHAPED WIRES			SECTIONAL AREA OF STEEL	SECTIONAL AREA OF ROUND AL. WIRES	SECTIONAL AREA OF Z-SHAPED AL. WIRES	TOTAL SECTIONAL AREA OF CONDUCTOR	OVERALL DIAMETER	MASS	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
	NOS.	DIAMETER	NOS.	DIAMETER	NO. OF LAYERS	NO. OF WIRES	EQ. ROUND DIA.									@ 75°C	@ 85°C
117	7	3.30	-	-	1	12	3.56	59.87	-	119.45	179.32	16.50	797.1	107.72	0.2414	255	313
202	7	2.70	-	-	2	30	2.96	40.08	-	206.44	246.52	18.90	882.3	95.81	0.1396	367	454
218	7	2.80	-	-	2	30	3.07	43.10	-	222.07	265.17	19.60	949.0	101.94	0.1298	383	474
251	7	3.00	-	-	2	30	3.30	49.48	-	256.59	306.07	21.00	1094.0	117.30	0.1124	416	517
290	7	3.20	-	-	2	30	3.54	56.30	-	295.27	351.57	22.40	1254.0	130.56	0.0976	450	562
306	7	3.30	-	-	2	30	3.64	59.87	-	312.19	372.06	23.10	1328.5	138.56	0.0923	465	581
407	7	2.90	12	2.90	2	42	3.19	46.24	79.26	335.68	461.18	26.10	1505.3	138.51	0.0695	537	677
449	19	3.50	18	3.50	1	24	3.89	182.80	173.18	285.23	641.22	31.50	2697.0	343.89	0.0629	586	749
451	7	3.05	12	3.05	2	42	3.36	51.14	87.67	372.41	511.23	27.45	1668.1	151.61	0.0627	568	719
481	7	3.15	12	3.15	2	42	3.47	54.55	93.52	397.19	545.26	28.35	1779.2	161.70	0.0588	589	747
582	7	3.45	12	3.45	2	42	3.82	65.44	112.18	481.36	658.97	31.05	2147.7	191.81	0.0486	653	835
598	7	3.50	12	3.50	2	42	3.87	67.35	115.45	494.04	676.84	31.50	2206.6	197.19	0.0473	663	849
631	7	3.60	12	3.60	2	48	3.72	71.25	122.15	521.70	715.09	32.40	2331.8	206.33	0.0448	683	876
632	7	3.60	12	3.60	2	42	3.98	71.25	122.15	522.52	715.92	32.40	2334.1	206.46	0.0447	684	877
862	7	3.35	12	3.35	3	72	3.70	61.70	105.77	774.15	941.62	36.85	2920.0	232.10	0.0328	812	1054

NOTE:

Current capacity based on referenced conductor temperature, 0.56 m/s wind, 0 m Elevation, 0.45 Emissivity, 0.80 absorptivity, 45°C Ambient temperature, 1045 W/m² Solar radiation

Customized conductor sizes based on customer's requirement can also be designed.

ALUMINIUM CONDUCTOR, ALUMINIUM CLAD STEEL REINFORCED Type ACSR/AW-Z



NOMINAL AREA	STEEL WIRE		ROUND ALU. WIRES		Z-SHAPED WIRES			SECTIONAL AREA OF STEEL	SECTIONAL AREA OF ROUND AL. WIRES	SECTIONAL AREA OF Z-SHAPED AL. WIRES	TOTAL SECTIONAL AREA OF CONDUCTOR	OVERALL DIAMETER	MASS	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
	NOS.	DIAMETER	NOS.	DIAMETER	NO. OF LAYERS	NO. OF WIRES	EQ. ROUND DIA.									@ 75°C	@ 85°C
137	7	3.30	-	-	1	12	3.56	59.87	-	119.45	179.32	16.50	725.6	98.74	0.2068	276	339
215	7	2.70	-	-	2	30	2.96	40.08	-	206.44	246.52	18.90	834.4	89.60	0.1312	379	468
232	7	2.80	-	-	2	30	3.07	43.10	-	222.07	265.17	19.60	897.5	95.26	0.1219	395	489
268	7	3.00	-	-	2	30	3.30	49.48	-	256.59	306.07	21.00	1034.9	109.63	0.1056	429	533
308	7	3.20	-	-	2	30	3.54	56.30	-	295.27	351.57	22.40	1186.7	122.12	0.0918	464	579
326	7	3.30	-	-	2	30	3.64	59.87	-	312.19	372.06	23.10	1257.0	129.58	0.0868	479	599
422	7	2.90	12	2.90	2	42	3.19	46.24	79.26	335.68	461.18	26.10	1450.0	131.35	0.0670	546	689
468	7	3.05	12	3.05	2	42	3.36	51.14	87.67	372.41	511.23	27.45	1607.0	143.93	0.0604	580	734
498	7	3.15	12	3.15	2	42	3.47	54.55	93.52	397.19	545.26	28.35	1714.0	153.52	0.0567	599	761
509	19	3.50	18	3.50	1	24	3.89	182.80	173.18	285.23	641.22	31.50	2477.8	316.47	0.0555	622	795
603	7	3.45	12	3.45	2	42	3.82	65.44	112.18	481.36	658.97	31.05	2069.5	182.00	0.0469	665	850
620	7	3.50	12	3.50	2	42	3.87	67.35	115.45	494.04	676.84	31.50	2126.1	187.09	0.0456	675	864
654	7	3.60	12	3.60	2	48	3.72	71.25	122.15	521.70	715.09	32.40	2246.7	195.64	0.0432	695	892
656	7	3.60	12	3.60	2	42	3.98	71.25	122.15	522.52	715.92	32.40	2249.0	195.77	0.0431	696	893
883	7	3.35	12	3.35	3	72	3.70	61.70	105.77	774.15	941.62	36.85	2846.2	222.85	0.0320	822	1067

NOTE:

Current capacity based on referenced conductor temperature, 0.56 m/s wind, 0 m Elevation, 0.45 Emissivity, 0.80 absorptivity, 45°C Ambient temperature, 1045 W/m² Solar radiation

Customized conductor sizes based on customer's requirement can also be designed.

ALUMINIUM ALLOY CONDUCTOR STEEL REINFORCED

Type AACSR-Z



NOMINAL AREA	STEEL WIRE		ROUND ALU. WIRES		Z-SHAPED WIRES			SECTIONAL AREA OF STEEL	SECTIONAL AREA OF ROUND AL. WIRES	SECTIONAL AREA OF Z-SHAPED AL. WIRES	TOTAL SECTIONAL AREA OF CONDUCTOR	OVERALL DIAMETER	MASS	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
	NOS.	DIAMETER	NOS.	DIAMETER	NO. OF LAYERS	NO. OF WIRES	EQ. ROUND DIA.									@ 75°C	@ 85°C
102	7	3.30	-	-	1	12	3.56	59.87	-	119.45	179.32	16.50	797.1	123.85	0.2778	241	296
176	7	2.70	-	-	2	30	2.96	40.08	-	206.44	246.52	18.90	882.3	121.62	0.1607	346	428
189	7	2.80	-	-	2	30	3.07	43.10	-	222.07	265.17	19.60	949.0	130.81	0.1494	360	447
219	7	3.00	-	-	2	30	3.30	49.48	-	256.59	306.07	21.00	1094.0	150.66	0.1293	391	487
251	7	3.20	-	-	2	30	3.54	56.30	-	295.27	351.57	22.40	1254.0	170.42	0.1124	424	530
266	7	3.30	-	-	2	30	3.64	59.87	-	312.19	372.06	23.10	1328.5	180.70	0.1063	437	548
353	7	2.90	12	2.90	2	42	3.19	46.24	79.26	335.68	461.18	26.10	1505.3	192.46	0.0802	505	638
390	19	3.50	18	3.50	1	24	3.89	182.80	173.18	285.23	641.22	31.50	2697.0	405.78	0.0724	552	707
392	7	3.05	12	3.05	2	42	3.36	51.14	87.67	372.41	511.23	27.45	1668.1	211.42	0.0721	535	679
418	7	3.15	12	3.15	2	42	3.47	54.55	93.52	397.19	545.26	28.35	1779.2	225.50	0.0676	555	705
506	7	3.45	12	3.45	2	42	3.82	65.44	112.18	481.36	658.97	31.05	2147.7	271.94	0.0559	616	788
520	7	3.50	12	3.50	2	42	3.87	67.35	115.45	494.04	676.84	31.50	2206.6	279.48	0.0544	625	801
549	7	3.60	12	3.60	2	48	3.72	71.25	122.15	521.70	715.09	32.40	2331.8	293.25	0.0515	644	828
549	7	3.60	12	3.60	2	42	3.98	71.25	122.15	522.52	715.92	32.40	2334.1	293.49	0.0515	644	828
750	7	3.35	12	3.35	3	72	3.70	61.70	105.77	774.15	941.62	36.85	2920.0	350.89	0.0377	768	998

NOTE:

Current capacity based on referenced conductor temperature, 0.56 m/s wind, 0 m Elevation, 0.45 Emissivity, 0.80 absorptivity, 45°C Ambient temperature, 1045 W/m² Solar radiation

Customized conductor sizes based on customer's requirement can also be designed.



POWERLINE

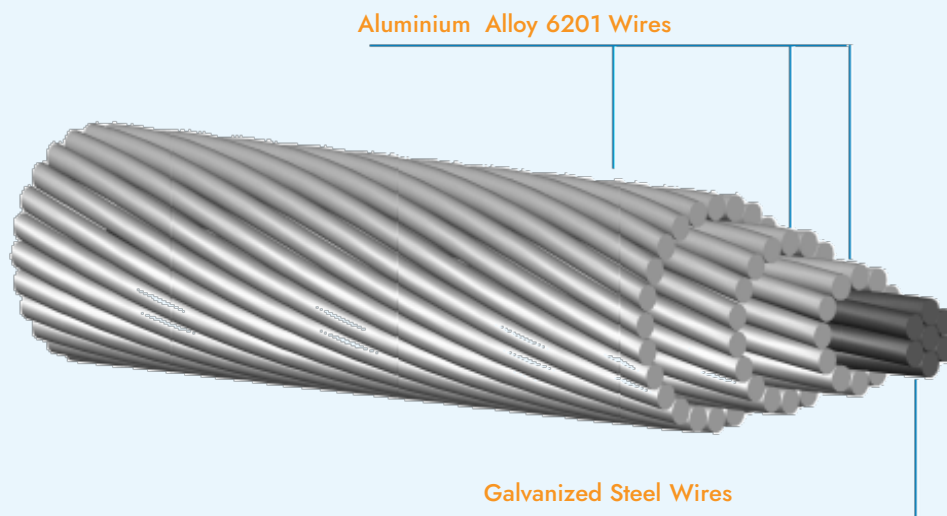
ALUMINIUM

ALLOY CONDUCTOR STEEL REINFORCED (AACSR)

It is a concentrically stranded conductor composed of one or more layers of Aluminium-Magnesium-Silicon alloy wire stranded with a high-strength coated steel core. AACSR Conductors have approx. 40% to 60% more strength than comparable standard ACSR with only 8 to 10% decrease in conductivity.

CONSTRUCTION:

Aluminium 6201 Wires, concentrically stranded over a central wire/core of Aluminium Galvanized steel.



FEATURES:

- Offers optimal strength for line design
- Improved strength to weight ratio
- Ideal for extra long spans and heavy load conditions
- Excellent resistance to corrosion

* Current capacity based on referenced conductor temperature, 0.56 m/s wind, 0 m Elevation, 0.45 Emissivity, 0.80 absorptivity, 45°C Ambient temperature, 1045 W/m² Solar radiation.

ALL ALUMINIUM ALLOY CONDUCTOR STEEL REINFORCED (AACSR) ASTM B 711



SECTIONAL AREA			STRANDING				DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
ALLOY NOMINAL	CONDUCTOR SIZE	TOTAL	NO. OF WIRES		WIRE DIAMETER						@ 75°C	@ 85°C
			ALUMINIUM	STEEL	ALUMINIUM	STEEL						
(MM ²)	(MM ²)	(MM ²)	(NO.)	(NO)	(MM)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
1250	102	1352	84	19	4.35	2.61	47.85	4255.00	490.00	0.0271	913	1221
1120	91	1211	84	19	4.12	2.47	45.31	3816.00	439.00	0.0302	866	1151
1000	81	1081	84	19	3.89	2.33	42.77	3400.00	391.00	0.0339	818	1079
900	73	973	84	19	3.69	2.21	40.57	3060.00	355.00	0.03767	775	1017
800	101	901	54	19	4.34	2.60	39.04	3003.00	363.00	0.0423	722	943
710	90	800	54	19	4.09	2.45	36.79	2664.00	322.00	0.0476	678	881
630	80	710	54	19	3.85	2.31	34.65	2365.00	286.00	0.0538	635	821
560	71	631	54	19	3.63	2.18	32.68	2104.00	257.00	0.0605	596	766
500	63	563	54	19	3.43	2.06	30.88	1878.00	229.00	0.0678	560	716
450	59	509	54	19	3.26	1.98	29.46	1706.00	215.00	0.0751	530	675
400	91	491	30	19	4.12	2.47	28.83	1818.00	237.00	0.0844	300	382
400	65	465	26	7	4.43	3.45	28.07	1616.00	207.00	0.0840	299	379
355	81	436	30	19	3.88	2.33	27.17	1614.00	211.00	0.0951	297	376
355	58	413	26	7	4.17	3.24	26.40	1430.00	183.00	0.0948	289	365
315	72	387	30	19	3.66	2.20	25.64	1438.00	190.00	0.1069	335	422
315	46	361	26	7	3.93	3.06	24.90	1272.00	163.00	0.1067	333	419
280	65	345	30	7	3.45	3.45	24.15	1286.00	171.00	0.1203	350	440
280	46	326	26	7	3.70	2.88	23.44	1127.00	144.00	0.1204	348	436
250	58	308	30	7	3.26	3.26	22.82	1149.00	156.00	0.1348	367	460
250	41	291	26	7	3.50	2.72	22.16	1008.00	129.00	0.1346	365	456
224	52	276	30	7	3.08	3.08	21.56	1025.00	139.00	0.1510	385	480
224	36	260	26	7	3.31	2.57	20.95	901.00	118.00	0.1505	383	477
200	47	247	30	7	2.91	2.91	20.37	915.00	124.00	0.1691	404	502
200	32	232	26	7	3.13	2.43	19.81	805.00	106.00	0.1683	402	499
180	42	222	30	7	2.76	2.76	19.32	823.00	112.00	0.1880	428	531
180	29	209	26	7	2.97	2.31	18.81	731.00	95.10	0.1868	423	524
160	38	198	30	7	2.61	2.61	18.27	736.00	106.00	0.2102	447	553
160	26	186	26	7	2.80	2.18	17.74	646.00	85.60	0.2103	444	548
140	33	173	30	7	2.44	2.44	17.08	643.00	87.40	0.2406	470	579
140	23	163	26	7	2.62	2.04	16.60	565.00	75.00	0.2401	466	574

ALL ALUMINIUM ALLOY CONDUCTOR STEEL REINFORCED (AACSR) ABNT NBR 5369



SECTIONAL AREA NOMINAL		STRANDING				DIAMETER OF COMPLETE CONDUCTOR	NOMINAL MASS			RATED STRENGTH		DC RESISTANCE @ 20°C	CURRENT CAPACITY	
ALLOY	STEEL	NO. OF WIRES		WIRE DIAMETER			ALLOY	STEEL	TOTAL	CLASS A	CLASS B		@ 75°C	@ 85°C
		ALUMINIUM	STEEL	ALUMINIUM	STEEL									
(MM ²)	(MM ²)	(NO.)	(NO)	(MM)	(MM)	(MM)	(KG/KM)	(KG/KM)	(KG/KM)	KN	KN	(Ω/KM)	(AMPERE)	(AMPERE)
140.17	22.28	26	7	2.62	2.04	16.60	386.5	178.7	565.2	75.0	73.5	0.2402	277	341
140.28	32.73	30	7	2.44	2.44	17.08	387.7	255.7	643.4	87.5	85.3	0.2405	278	342
139.11	26.13	26	7	2.61	2.18	16.98	383.6	204.1	587.7	79.2	77.4	0.2420	277	341
133.46	37.45	30	7	2.38	2.38	16.66	368.9	292.5	661.4	91.8	89.3	0.2528	270	332
180.13	29.34	26	7	2.97	2.31	18.81	496.7	229.2	725.9	95.2	93.2	0.1869	320	396
179.49	41.88	30	7	2.76	2.76	19.32	496.1	327.1	823.2	111.9	109.1	0.1880	321	397
200.06	32.46	26	7	3.13	2.43	19.81	551.6	253.5	805.1	105.5	103.3	0.1683	340	422
199.52	46.56	30	7	2.91	2.91	20.37	551.5	363.7	915.2	124.4	121.3	0.1691	341	424
223.73	36.31	26	7	3.31	2.57	20.95	616.9	283.6	900.5	115.1	112.7	0.1505	363	452
223.52	52.15	30	7	3.08	3.08	21.56	617.8	407.3	1025.1	139.4	135.9	0.1510	364	454
250.15	40.67	26	7	3.50	2.72	22.16	689.7	317.7	1007.4	128.8	126.1	0.1346	387	483
250.41	58.43	30	7	3.26	3.26	22.82	692.1	456.4	1148.5	152.9	149.0	0.1348	388	486
279.55	45.60	26	7	3.70	2.88	23.44	770.8	356.2	1127.0	144.1	141.1	0.1204	412	517
280.45	65.44	30	7	3.45	3.45	24.15	775.2	511.2	1286.4	171.3	166.9	0.1203	414	520
320.22	51.48	26	7	3.96	3.06	25.02	882.9	402.1	1285.0	164.1	160.6	0.1051	445	560
315.63	72.23	30	19	3.66	2.20	25.64	872.4	565.3	1437.7	190.5	185.8	0.1069	443	558
355.09	57.71	26	7	4.17	3.24	26.40	979.1	450.8	1429.8	182.8	178.9	0.0948	472	596
354.71	81.01	30	19	3.88	2.33	27.17	980.4	634.0	1614.4	210.8	205.5	0.0951	473	599
400.75	65.44	26	7	4.43	3.45	28.07	1105.0	511.2	1616.2	206.7	202.3	0.0840	505	641
399.95	91.04	30	19	4.12	2.47	28.83	1105.5	712.5	1818.0	237.3	231.4	0.0844	505	643
450.73	58.50	54	19	3.26	1.98	29.46	1245.8	457.9	1703.7	208.9	205.1	0.0749	530	676
498.97	63.33	54	19	3.43	2.06	30.88	1379.1	495.7	1874.8	229.3	225.2	0.0676	561	717
558.85	70.92	54	19	3.63	2.18	32.68	1544.6	555.1	2099.7	256.8	252.2	0.0604	597	767
628.64	79.63	54	19	3.85	2.31	34.65	1737.5	623.2	2360.7	285.8	280.6	0.0537	636	821
709.46	89.57	54	19	4.09	2.45	36.79	1960.9	701.0	2661.9	322.1	316.3	0.0476	679	881
798.85	100.88	54	19	4.34	2.60	39.04	2208.0	789.6	2997.6	362.7	356.2	0.0422	723	945
898.3	72.88	84	19	3.69	2.21	40.57	2488.9	570.4	3059.3	354.6	349.8	0.0377	775	1016
998.32	81.01	84	19	3.89	2.33	42.77	2766.0	634.0	3400.0	391.0	385.8	0.0339	818	1079
1119.86	91.04	84	19	4.12	2.47	45.31	3102.8	712.5	3815.3	438.9	433.0	0.0302	866	1151
1248.38	101.65	84	19	4.35	2.61	47.85	3458.9	795.6	4254.5	489.5	482.8	0.0271	913	1221

ALL ALUMINIUM ALLOY CONDUCTOR STEEL REINFORCED (AACSR) AS 3607



CODE NAME	SECTIONAL AREA	STRANDING				DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
		NO. OF WIRES		WIRE DIAMETER						@ 75°C	@ 85°C
		ALUMINIUM	STEEL	ALUMINIUM	STEEL						
(MM ²)	(MM ²)	(NO.)	(NO)	(MM)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
Apple	49.48	6	1	3.00	3.00	9.00	171	20.2	0.785	128	154
Banana	77.31	6	1	3.75	3.75	11.25	268	31.5	0.503	167	202
Cherry	120.4	6	7	4.75	1.60	14.30	402	47.4	0.313	221	270
Fig	182.8	18	1	3.50	3.50	17.50	552	60.8	0.193	311	384
Lemon	261.5	30	7	3.00	3.00	21.00	973	117	0.158	354	441
Lime	356.0	30	7	3.50	3.50	24.50	1320	158	0.116	422	531

ALL ALUMINIUM ALLOY CONDUCTOR STEEL REINFORCED (AACSR) IEC 61089 - Type A2/S1A



CODE NUMBER	STEEL RATIO	SECTIONAL AREA			STRANDING				DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
		ALLOY	CONDUCTOR SIZE	TOTAL	NO. OF WIRES		WIRE DIAMETER						@ 75°C	@ 85°C
					ALUMINIUM	STEEL	ALUMINIUM	STEEL						
-	%	(MM ²)	(MM ²)	(MM ²)	(NO.)	(NO)	(MM)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
16	17	18.4	3.07	21.5	6	1	1.98	1.98	5.94	74.4	9.02	1.7934	78	93
25	17	28.8	4.8	33.6	6	1	2.47	2.47	7.41	116.2	13.96	1.1478	102	122
40	17	46.0	7.67	53.7	6	1	3.13	3.13	9.39	185.9	22.02	0.7174	135	163
63	17	72.5	12.1	84.6	6	1	3.92	3.92	11.76	292.8	34.68	0.4555	177	215
100	6	115	6.39	121	18	1	2.85	2.85	14.25	366.4	41.24	0.2880	246	301
125	6	144	7.99	152	18	1	3.19	3.19	15.95	458.0	51.23	0.2304	281	345
125	16	144	23.4	167	26	7	2.65	2.96	19.48	579.9	69.86	0.2310	290	359
160	6	184	10.2	194	18	1	3.61	3.61	18.05	586.2	65.58	0.1800	324	400
160	16	184	30.0	214	26	7	3.00	2.34	19.02	742.3	88.52	0.1805	326	404
200	6	230	12.8	243	18	1	4.04	4.04	20.20	732.8	81.97	0.1440	369	458
200	16	230	37.5	268	26	7	3.36	2.61	21.27	927.9	110.64	0.1444	371	462
250	10	288	28.3	316	22	7	4.08	2.27	23.13	1013.5	117.09	0.1154	420	526
250	16	288	46.9	335	26	7	3.75	2.92	23.76	1159.8	138.31	0.1155	421	529
315	7	363	25.1	388	45	7	3.20	2.14	25.62	1196.5	136.28	0.0917	471	594
315	16	363	59.0	422	26	7	4.21	3.28	26.68	1461.4	171.90	0.0917	480	607
400	7	460	31.8	492	45	7	3.61	2.41	28.89	1519.4	172.10	0.0722	538	685
400	13	460	59.7	520	54	7	3.29	3.29	29.61	1738.3	201.46	0.0723	540	688
450	7	518	35.8	554	45	7	3.83	2.55	30.63	1709.3	193.61	0.0642	574	734
450	13	518	67.1	585	54	7	3.49	3.49	31.41	1955.6	226.64	0.0643	576	738
500	7	575	39.8	615	45	7	4.04	2.69	32.31	1899.3	215.12	0.0578	608	781
500	13	575	74.6	650	54	7	3.68	3.68	33.12	2172.9	251.82	0.0578	611	785
560	7	646	44.6	691	45	7	4.27	2.85	34.17	2127.2	240.93	0.0516	647	834
560	13	646	81.6	728	54	19	3.90	2.34	35.10	2420.9	283.21	0.0516	649	840
630	4	725	31.3	756	72	7	3.58	2.39	35.81	2248.0	249.62	0.0459	696	902
630	13	725	91.8	817	54	19	4.13	2.48	37.18	2723.5	318.61	0.0459	691	899
710	4	817	35.3	852	72	7	3.80	2.53	37.99	2533.4	281.32	0.0407	741	966
710	13	817	104	921	54	19	4.39	2.63	39.49	3069.4	359.06	0.0407	737	964
800	4	921	39.8	961	72	7	4.04	2.69	40.39	2854.6	316.98	0.0361	789	1034
800	8	921	76.7	998	84	7	3.74	3.74	41.14	3145.1	359.03	0.0362	791	1039
900	4	1036	44.8	1081	72	7	4.28	2.85	42.79	3211.4	356.60	0.0321	837	1104
900	8	1036	86.3	1122	84	7	3.96	3.96	43.56	3538.3	400.53	0.0322	839	1109
1000	8	1151	93.7	1245	84	19	4.18	2.51	45.99	3916.8	446.37	0.0298	873	1161
1120	8	1289	105	1394	84	19	4.42	2.65	48.61	4368.6	499.93	0.0258	934	1252

ALL ALUMINIUM ALLOY CONDUCTOR STEEL REINFORCED (AACSR) IEC 61089 - Type A2/S1B



CODE NUMBER	STEEL RATIO	SECTIONAL AREA			STRANDING				DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
		ALLOY	CONDUCTOR SIZE	TOTAL	NO. OF WIRES		WIRE DIAMETER						@ 75°C	@ 85°C
					ALUMINIUM	STEEL	ALUMINIUM	STEEL						
-	%	(MM ²)	(MM ²)	(MM ²)	(NO.)	(NO)	(MM)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
16	17	18.4	3.07	21.5	6	1	1.98	1.98	5.94	74.4	8.81	1.7934	78	93
25	17	28.8	4.8	33.6	6	1	2.47	2.47	7.41	116.2	13.62	1.1478	102	122
40	17	46.0	7.67	53.7	6	1	3.13	3.13	9.39	185.9	21.25	0.7174	135	163
63	17	72.5	12.1	84.6	6	1	3.92	3.92	11.76	292.8	33.48	0.4555	177	215
100	6	115	6.39	121	18	1	2.85	2.85	14.25	366.4	40.79	0.2880	246	301
125	6	144	7.99	152	18	1	3.19	3.19	15.95	458.0	50.43	0.2304	281	345
125	16	144	23.4	167	26	7	2.65	2.96	19.48	579.9	68.22	0.2310	290	359
160	6	184	10.2	194	18	1	3.61	3.61	18.05	586.2	64.56	0.1800	324	400
160	16	184	30.0	214	26	7	3.00	2.34	19.02	742.3	86.42	0.1805	326	404
200	6	230	12.8	243	18	1	4.04	4.04	20.20	732.8	80.69	0.1440	369	458
200	16	230	37.5	268	26	7	3.36	2.61	21.27	927.9	108.02	0.1444	371	462
250	10	288	28.3	316	22	7	4.08	2.27	23.13	1013.5	115.12	0.1154	420	526
250	16	288	46.9	335	26	7	3.75	2.92	23.76	1159.8	135.03	0.1155	421	529
315	7	363	25.1	388	45	7	3.20	2.14	25.62	1196.5	134.52	0.0917	471	594
315	16	363	59.0	422	26	7	4.21	3.28	26.68	1461.4	166.00	0.0917	480	607
400	7	460	31.8	492	45	7	3.61	2.41	28.89	1519.4	169.87	0.0722	538	685
400	13	460	59.7	520	54	7	3.29	3.29	29.61	1738.3	195.49	0.0723	540	688
450	7	518	35.8	554	45	7	3.83	2.55	30.63	1709.3	191.10	0.0642	574	734
450	13	518	67.1	585	54	7	3.49	3.49	31.41	1955.6	219.93	0.0643	576	738
500	7	575	39.8	615	45	7	4.04	2.69	32.31	1899.3	212.33	0.0578	608	781
500	13	575	74.6	650	54	7	3.68	3.68	33.12	2172.9	244.36	0.0578	611	785
560	7	646	44.6	691	45	7	4.27	2.85	34.17	2127.2	237.82	0.0516	647	834
560	13	646	81.6	728	54	19	3.90	2.34	35.10	2420.9	277.49	0.0516	649	840
630	4	725	31.3	756	72	7	3.58	2.39	35.81	2248.0	247.43	0.0459	696	902
630	13	725	91.8	817	54	19	4.13	2.48	37.18	2723.5	312.18	0.0459	691	899
710	4	817	35.3	852	72	7	3.80	2.53	37.99	2533.4	278.85	0.0407	741	966
710	13	817	104	921	54	19	4.39	2.63	39.49	3069.4	351.82	0.0407	737	964
800	4	921	39.8	961	72	7	4.04	2.69	40.39	2854.6	314.19	0.0361	789	1034
800	8	921	76.7	998	84	7	3.74	3.74	41.14	3145.1	348.35	0.0362	791	1039
900	4	1036	44.8	1081	72	7	4.28	2.85	42.79	3211.4	353.47	0.0321	837	1104
900	8	1036	86.3	1122	84	7	3.96	3.96	43.56	3538.3	391.90	0.0322	839	1109
1000	8	1151	93.7	1245	84	19	4.18	2.51	45.99	3916.8	439.81	0.0298	873	1161
1120	8	1289	105	1394	84	19	4.42	2.65	48.61	4368.6	492.59	0.0258	934	1252

ALL ALUMINIUM ALLOY CONDUCTOR STEEL REINFORCED (AACSR) IEC 61089 - Type A2/S3A



CODE NUMBER	STEEL RATIO	SECTIONAL AREA			STRANDING				DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
		ALLOY	CONDUCTOR SIZE	TOTAL	NO. OF WIRES		WIRE DIAMETER						@ 75°C	@ 85°C
					ALUMINIUM	STEEL	ALUMINIUM	STEEL						
-	%	(MM ²)	(MM ²)	(MM ²)	(NO.)	(NO)	(MM)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
16	17	18.4	3.07	21.5	6	1	1.98	1.98	5.94	74.4	9.88	1.7934	78	93
25	17	28.8	4.8	33.6	6	1	2.47	2.47	7.41	116.2	15.25	1.1478	102	122
40	17	46.0	7.67	53.7	6	1	3.13	3.13	9.39	185.9	24.71	0.7174	135	163
63	17	72.5	12.1	84.6	6	1	3.92	3.92	11.76	292.8	37.58	0.4555	177	215
100	6	115	6.39	121	18	1	2.85	2.85	14.25	366.4	42.97	0.2880	246	301
125	6	144	7.99	152	18	1	3.19	3.19	15.95	458.0	53.47	0.2304	281	345
125	16	144	23.4	167	26	7	2.65	2.96	19.48	579.9	76.42	0.2310	290	359
160	6	184	10.2	194	18	1	3.61	3.61	18.05	586.2	68.03	0.1800	324	400
160	16	184	30.0	214	26	7	3.00	2.34	19.02	742.3	96.61	0.1805	326	404
200	6	230	12.8	243	18	1	4.04	4.04	20.20	732.8	85.04	0.1440	369	458
200	16	230	37.5	268	26	7	3.36	2.61	21.27	927.9	120.77	0.1444	371	462
250	10	288	28.3	316	22	7	4.08	2.27	23.13	1013.5	124.72	0.1154	420	526
250	16	288	46.9	335	26	7	3.75	2.92	23.76	1159.8	150.96	0.1155	421	529
315	7	363	25.1	388	45	7	3.20	2.14	25.62	1196.5	143.30	0.0917	471	594
315	16	363	59.0	422	26	7	4.21	3.28	26.68	1461.4	188.44	0.0917	480	607
400	7	460	31.8	492	45	7	3.61	2.41	28.89	1519.4	180.69	0.0722	538	685
400	13	460	59.7	520	54	7	3.29	3.29	29.61	1738.3	218.17	0.0723	540	688
450	7	518	35.8	554	45	7	3.83	2.55	30.63	1709.3	203.28	0.0642	574	734
450	13	518	67.1	585	54	7	3.49	3.49	31.41	1955.6	245.44	0.0643	576	738
500	7	575	39.8	615	45	7	4.04	2.69	32.31	1899.3	225.86	0.0578	608	781
500	13	575	74.6	650	54	7	3.68	3.68	33.12	2172.9	269.73	0.0578	611	785
560	7	646	44.6	691	45	7	4.27	2.85	34.17	2127.2	252.97	0.0516	647	834
560	13	646	81.6	728	54	19	3.90	2.34	35.10	2420.9	305.25	0.0516	649	840
630	4	725	31.3	756	72	7	3.58	2.39	35.81	2248.0	258.08	0.0459	696	902
630	13	725	91.8	817	54	19	4.13	2.48	37.18	2723.5	343.40	0.0459	691	899
710	4	817	35.3	852	72	7	3.80	2.53	37.99	2533.4	290.85	0.0407	741	966
710	13	817	104	921	54	19	4.39	2.63	39.49	3069.4	387.01	0.0407	737	964
800	4	921	39.8	961	72	7	4.04	2.69	40.39	2854.6	327.72	0.0361	789	1034
800	8	921	76.7	998	84	7	3.74	3.74	41.14	3145.1	374.44	0.0362	791	1039
900	4	1036	44.8	1081	72	7	4.28	2.85	42.79	3211.4	368.69	0.0321	837	1104
900	8	1036	86.3	1122	84	7	3.96	3.96	43.56	3538.3	421.25	0.0322	839	1109
1000	8	1151	93.7	1245	84	19	4.18	2.51	45.99	3916.8	471.67	0.0298	873	1161
1120	8	1289	105	1394	84	19	4.42	2.65	48.61	4368.6	528.27	0.0258	934	1252

ALL ALUMINIUM ALLOY CONDUCTOR STEEL REINFORCED (AACSR) IEC 61089 - Type A3/S1A



CODE NUMBER	STEEL RATIO	SECTIONAL AREA			STRANDING				DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
		ALLOY	CONDUCTOR SIZE	TOTAL	NO. OF WIRES		WIRE DIAMETER						@ 75°C	@ 85°C
					ALUMINIUM	STEEL	ALUMINIUM	STEEL						
-	%	(MM ²)	(MM ²)	(MM ²)	(NO.)	(NO)	(MM)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
16	17	18.6	3.1	21.7	6	1	1.99	1.99	5.97	75.1	9.67	1.7934	78	93
25	17	29.0	4.8	33.8	6	1	2.48	2.48	7.44	117.3	14.96	1.1478	102	122
40	17	46.5	7.8	54.3	6	1	3.14	3.14	9.42	187.7	23.63	0.7174	135	163
63	17	73.2	12.2	85.4	6	1	3.94	3.94	11.82	295.6	36.48	0.4555	177	215
100	6	116	6.5	122.5	18	1	2.87	2.87	14.35	369.9	45.12	0.2880	246	301
125	6	145	8.1	153.1	18	1	3.21	3.21	16.05	462.3	56.08	0.2304	281	345
125	16	145	23.7	168.7	26	7	2.67	2.07	16.89	585.4	74.88	0.2310	290	359
160	6	186	10.3	196.3	18	1	3.63	3.63	18.15	591.8	69.92	0.1800	324	400
160	16	186	13.3	199.3	26	7	3.02	2.35	19.13	749.4	94.94	0.1805	326	404
200	6	232	12.9	244.9	18	1	4.05	4.05	20.25	739.8	87.40	0.1440	369	458
200	16	232	37.8	269.8	26	7	3.37	2.62	21.34	936.7	118.67	0.1444	371	462
250	10	290	28.5	318.5	22	7	4.10	2.28	23.24	1023.2	124.02	0.1154	420	526
250	16	290	47.3	337.3	26	7	3.77	2.93	23.87	1170.9	145.43	0.1155	421	529
315	7	366	25.3	391.3	45	7	3.22	2.15	25.77	1207.9	148.56	0.0917	471	594
315	16	366	59.6	425.6	26	7	4.23	3.29	26.79	1475.3	180.86	0.0917	480	607
400	7	465	32.1	497.1	45	7	3.63	2.42	29.04	1533.9	183.03	0.0722	538	685
400	13	465	60.2	525.2	54	7	3.31	3.31	29.79	1754.9	217.32	0.0723	540	688
450	7	523	36.1	559.1	45	7	3.85	2.56	30.78	1725.6	205.91	0.0642	574	734
450	13	523	67.8	590.8	54	7	3.51	3.51	31.59	1974.2	239.26	0.0643	576	738
500	7	581	40.2	621.2	45	7	4.05	2.70	32.40	1917.3	228.79	0.0578	608	781
500	13	581	75.3	656.3	54	7	3.70	3.70	33.30	2193.6	265.84	0.0578	611	785
560	7	651	45.0	696.0	45	7	4.29	2.86	34.32	2147.4	256.24	0.0516	647	834
560	13	651	82.4	733.4	54	19	3.92	2.35	35.27	2444.0	298.92	0.0516	649	840
630	4	732	31.6	763.6	72	7	3.60	2.40	36.00	2269.4	266.64	0.0459	696	902
630	13	732	92.7	824.7	54	19	4.15	2.49	37.35	2749.5	336.28	0.0459	691	899
710	4	825	35.6	860.6	72	7	3.82	2.55	38.21	2557.6	300.50	0.0407	741	966
710	13	825	104.0	929.0	54	19	4.41	2.65	39.71	3098.6	378.98	0.0407	737	964
800	4	930	40.2	970.2	72	7	4.05	2.70	40.50	2881.8	338.59	0.0361	789	1034
800	8	930	77.5	1007.5	84	7	3.75	3.75	41.25	3175.1	378.01	0.0362	791	1039
900	4	1046	45.2	1091.2	72	7	4.30	2.87	43.01	3242.0	380.91	0.0321	837	1104
900	8	1046	87.1	1133.1	84	7	3.98	3.98	43.78	3572.0	425.26	0.0322	839	1109
1000	8	1162	94.6	1256.6	84	19	4.20	2.52	46.20	3954.1	473.86	0.0298	873	1161
1120	8	1301	106.0	1407.0	84	19	4.44	2.66	48.82	4428.6	530.72	0.0258	934	1252

ALL ALUMINIUM ALLOY CONDUCTOR STEEL REINFORCED (AACSR) IEC 61089 - Type A3/S1B



CODE NUMBER	STEEL RATIO	SECTIONAL AREA			STRANDING				DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
		ALLOY	CONDUCTOR SIZE	TOTAL	NO. OF WIRES		WIRE DIAMETER						@ 75°C	@ 85°C
					ALUMINIUM	STEEL	ALUMINIUM	STEEL						
-	%	(MM ²)	(MM ²)	(MM ²)	(NO.)	(NO)	(MM)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
16	17	18.6	3.1	21.7	6	1	1.99	1.99	5.97	75.1	9.45	1.7934	78	93
25	17	29.0	4.8	33.8	6	1	2.48	2.48	7.44	117.3	14.62	1.1478	102	122
40	17	46.5	7.8	54.3	6	1	3.14	3.14	9.42	187.7	22.85	0.7174	135	163
63	17	73.2	12.2	85.4	6	1	3.94	3.94	11.82	295.6	35.26	0.4555	177	215
100	6	116	6.5	122.5	18	1	2.87	2.87	14.35	369.9	44.67	0.2880	246	301
125	6	145	8.1	153.1	18	1	3.21	3.21	16.05	462.3	55.27	0.2304	281	345
125	16	145	23.7	168.7	26	7	2.67	2.07	16.89	585.4	73.22	0.2310	290	359
160	6	186	10.3	196.3	18	1	3.63	3.63	18.15	591.8	68.89	0.1800	324	400
160	16	186	13.3	199.3	26	7	3.02	2.35	19.13	749.4	92.82	0.1805	326	404
200	6	232	12.9	244.9	18	1	4.05	4.05	20.25	739.8	86.11	0.1440	369	458
200	16	232	37.8	269.8	26	7	3.37	2.62	21.34	936.7	116.02	0.1444	371	462
250	10	290	28.5	318.5	22	7	4.10	2.28	23.24	1023.2	122.02	0.1154	420	526
250	16	290	47.3	337.3	26	7	3.77	2.93	23.87	1170.9	142.12	0.1155	421	529
315	7	366	25.3	391.3	45	7	3.22	2.15	25.77	1207.9	146.78	0.0917	471	594
315	16	366	59.6	425.6	26	7	4.23	3.29	26.79	1475.3	174.90	0.0917	480	607
400	7	465	32.1	497.1	45	7	3.63	2.42	29.04	1533.9	180.78	0.0722	538	685
400	13	465	60.2	525.2	54	7	3.31	3.31	29.79	1754.9	211.29	0.0723	540	688
450	7	523	36.1	559.1	45	7	3.85	2.56	30.78	1725.6	203.38	0.0642	574	734
450	13	523	67.8	590.8	54	7	3.51	3.51	31.59	1974.2	232.48	0.0643	576	738
500	7	581	40.2	621.2	45	7	4.05	2.70	32.40	1917.3	225.96	0.0578	608	781
500	13	581	75.3	656.3	54	7	3.70	3.70	33.30	2193.6	258.31	0.0578	611	785
560	7	651	45.0	696.0	45	7	4.29	2.86	34.32	2147.4	253.09	0.0516	647	834
560	13	651	82.4	733.4	54	19	3.92	2.35	35.27	2444.0	293.15	0.0516	649	840
630	4	732	31.6	763.6	72	7	3.60	2.40	36.00	2269.4	264.42	0.0459	696	902
630	13	732	92.7	824.7	54	19	4.15	2.49	37.35	2749.5	329.79	0.0459	691	899
710	4	825	35.6	860.6	72	7	3.82	2.55	38.21	2557.6	298.00	0.0407	741	966
710	13	825	104.0	929.0	54	19	4.41	2.65	39.71	3098.6	371.67	0.0407	737	964
800	4	930	40.2	970.2	72	7	4.05	2.70	40.50	2881.8	335.78	0.0361	789	1034
800	8	930	77.5	1007.5	84	7	3.75	3.75	41.25	3175.1	370.26	0.0362	791	1039
900	4	1046	45.2	1091.2	72	7	4.30	2.87	43.01	3242.0	377.75	0.0321	837	1104
900	8	1046	87.1	1133.1	84	7	3.98	3.98	43.78	3572.0	416.54	0.0322	839	1109
1000	8	1162	94.6	1256.6	84	19	4.20	2.52	46.20	3954.1	467.24	0.0298	873	1161
1120	8	1301	106.0	1407.0	84	19	4.44	2.66	48.82	4428.6	523.30	0.0258	934	1252

ALL ALUMINIUM ALLOY CONDUCTOR STEEL REINFORCED (AACSR) IEC 61089 - Type A3/S3A



CODE NUMBER	STEEL RATIO	SECTIONAL AREA			STRANDING				DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
		ALLOY	CONDUCTOR SIZE	TOTAL	NO. OF WIRES		WIRE DIAMETER						@ 75°C	@ 85°C
					ALUMINIUM	STEEL	ALUMINIUM	STEEL						
-	%	(MM ²)	(MM ²)	(MM ²)	(NO.)	(NO)	(MM)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
16	17	18.6	3.1	21.7	6	1	1.99	1.99	5.97	75.10	10.53	1.7934	78	93
25	17	29.0	4.8	33.8	6	1	2.48	2.48	7.44	117.30	16.27	1.1478	102	122
40	17	46.5	7.8	54.3	6	1	3.14	3.14	9.42	187.70	25.79	0.7174	135	163
63	17	73.2	12.2	85.4	6	1	3.94	3.94	11.82	295.60	39.41	0.4555	177	215
100	6	116	6.5	122.5	18	1	2.87	2.87	14.35	369.90	46.86	0.2880	246	301
125	6	145	8.1	153.1	18	1	3.21	3.21	16.05	462.30	58.34	0.2304	281	345
125	16	145	23.7	168.7	26	7	2.67	2.07	16.89	585.40	81.50	0.2310	290	359
160	6	186	10.3	196.3	18	1	3.63	3.63	18.15	591.80	72.40	0.1800	324	400
160	16	186	30.4	199.3	26	7	3.02	2.35	19.13	749.40	103.11	0.1805	326	404
200	6	232	12.9	244.9	18	1	4.05	4.05	20.25	739.80	90.50	0.1440	369	458
200	16	232	37.8	269.8	26	7	3.37	2.62	21.34	936.70	128.89	0.1444	371	462
250	10	290	28.5	318.5	22	7	4.10	2.28	23.24	1023.20	131.72	0.1154	420	526
250	16	290	47.3	337.3	26	7	3.77	2.93	23.87	1170.90	158.21	0.1155	421	529
315	7	366	25.3	391.3	45	7	3.22	2.15	25.77	1207.90	155.64	0.0917	471	594
315	16	366	59.6	425.6	26	7	4.23	3.29	26.79	1475.30	197.55	0.0917	480	607
400	7	465	32.1	497.1	45	7	3.63	2.42	29.04	1533.90	191.71	0.0722	538	685
400	13	465	60.2	525.2	54	7	3.31	3.31	29.79	1754.90	234.19	0.0723	540	688
450	7	523	36.1	559.1	45	7	3.85	2.56	30.78	1725.60	215.67	0.0642	574	734
450	13	523	67.8	590.8	54	7	3.51	3.51	31.59	1974.20	255.52	0.0643	576	738
500	7	581	40.2	621.2	45	7	4.05	2.70	32.40	1917.30	239.63	0.0578	608	781
500	13	581	75.3	656.3	54	7	3.70	3.70	33.30	2193.60	283.91	0.0578	611	785
560	7	651	45.0	696.0	45	7	4.29	2.86	34.32	2147.40	268.39	0.0516	647	834
560	13	651	82.4	733.4	54	19	3.92	2.35	35.27	2444.00	321.17	0.0516	649	840
630	4	732	31.6	763.6	72	7	3.60	2.40	36.00	2269.40	275.18	0.0459	696	902
630	13	732	92.7	824.7	54	19	4.15	2.49	37.35	2749.50	361.32	0.0459	691	899
710	4	825	35.6	860.6	72	7	3.82	2.55	38.21	2557.60	310.12	0.0407	741	966
710	13	825	104.0	929.0	54	19	4.41	2.65	39.71	3098.60	407.20	0.0407	737	964
800	4	930	40.2	970.2	72	7	4.05	2.70	40.50	2881.80	349.43	0.0361	789	1034
800	8	930	77.5	1007.5	84	7	3.75	3.75	41.25	3175.10	396.60	0.0362	791	1039
900	4	1046	45.2	1091.2	72	7	4.30	2.87	43.01	3242.00	393.11	0.0321	837	1104
900	8	1046	87.1	1133.1	84	7	3.98	3.98	43.78	3572.00	446.17	0.0322	839	1109
1000	8	1162	94.6	1256.6	84	19	4.20	2.52	46.20	3954.10	499.40	0.0298	873	1161
1120	8	1301	106.0	1407.0	84	19	4.44	2.66	48.82	4428.60	559.33	0.0258	934	1252



POWERLINE

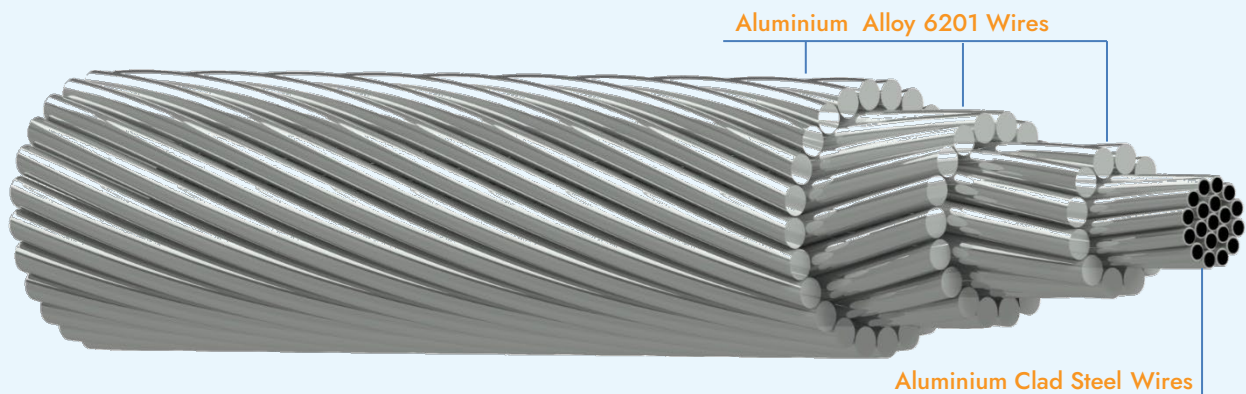
ALL ALUMINIUM

ALLOY CONDUCTOR, ALUMINIUM CLAD STEEL REINFORCED (AACSR/AW)

It is a concentrically stranded conductor composed of one or more layers of Aluminium-Magnesium-Silicon alloy wire stranded over a High Strength Aluminium Clad Steel core. AACSR/AW Conductors have approx. 40% to 60% more strength than comparable standard ACSR with only 8 to 10% decrease in conductivity.

CONSTRUCTION:

Aluminium 6201 Wires, concentrically stranded over a central wire/core of Aluminium Galvanized steel.



FEATURES:

- Offers optimal strength for line design
- Improved strength to weight ratio
- Ideal for extra long spans and heavy load conditions
- Excellent resistance to corrosion

* Current capacity based on referenced conductor temperature, 0.56 m/s wind, 0 m Elevation, 0.45 Emissivity, 0.80 absorptivity, 45°C Ambient temperature, 1045 W/m² Solar radiation.

ALL ALUMINIUM ALLOY CONDUCTOR, ALUMINIUM CLAD STEEL REINFORCED (AACSR / AW)

IEC 61089/EN 50182 - Type A2/20SA



CODE NUMBER	STEEL RATIO	SECTIONAL AREA			STRANDING				DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
		ALLOY	CONDUCTOR SIZE	TOTAL	NO. OF WIRES		WIRE DIAMETER						@ 75°C	@ 85°C
					ALUMINIUM	STEEL	ALUMINIUM	STEEL						
-	%	(MM ²)	(MM ²)	(MM ²)	(NO.)	(NO)	(MM)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
16	17	18.40	3.07	21.47	6	1	1.98	1.98	5.94	70.7	9.73	1.6766	81	96
25	17	28.80	4.80	33.60	6	1	2.47	2.47	7.41	110.5	15.00	1.0778	106	126
40	17	46.00	7.67	53.67	6	1	3.13	3.13	9.39	176.7	23.85	0.6748	140	168
63	17	72.50	12.10	84.60	6	1	3.92	3.92	11.76	278.4	37.05	0.4281	183	221
100	6	115.00	6.39	121.39	18	1	2.85	2.85	14.25	358.8	42.55	0.2822	249	304
125	6	144.00	7.99	151.99	18	1	3.19	3.19	15.95	448.5	53.07	0.2254	284	349
125	16	144.00	23.40	167.40	26	7	2.65	2.96	19.48	522.3	107.81	0.2172	299	370
160	6	184.00	10.20	194.20	18	1	3.61	3.61	18.05	574.0	67.66	0.1764	327	404
160	16	184.00	30.00	214.00	26	7	3.00	2.34	19.02	706.3	95.16	0.1700	336	417
200	6	230.00	12.80	242.80	18	1	4.04	4.04	20.20	717.5	84.73	0.1411	372	463
200	16	230.00	37.50	267.50	26	7	3.36	2.61	21.27	883.1	118.94	0.1360	382	476
250	10	288.00	28.30	316.30	22	7	4.08	2.27	23.13	979.6	124.23	0.1111	428	536
250	16	288.00	46.90	334.90	26	7	3.75	2.92	23.76	1103.8	148.46	0.1086	434	545
315	16	363.00	59.00	422.00	26	7	4.21	3.28	26.68	1390.7	185.44	0.0862	495	626
315	7	363.00	25.10	388.10	45	7	3.20	2.14	25.62	1166.4	141.76	0.0892	477	602
400	7	460.00	31.80	491.80	45	7	3.61	2.41	28.89	1481.2	179.30	0.0704	545	693
400	13	460.00	59.70	519.70	54	7	3.29	3.29	29.61	1667.2	214.57	0.0689	553	705
450	7	518.00	35.80	553.80	45	7	3.83	2.55	30.63	1666.6	201.56	0.0625	582	744
450	13	518.00	67.10	585.10	54	7	3.49	3.49	31.41	1875.6	241.45	0.0612	590	756
500	7	575.00	39.80	614.80	45	7	4.04	2.69	32.31	1851.8	224.28	0.0563	616	791
500	13	575.00	74.60	649.60	54	7	3.68	3.68	33.12	2083.9	266.22	0.0551	625	804
560	7	646.00	44.60	690.60	45	7	4.27	2.85	34.17	2073.8	250.83	0.0502	655	846
560	13	646.00	81.60	727.60	54	19	3.90	2.34	35.10	2322.9	301.42	0.0491	665	860
630	13	725.00	91.80	816.80	54	19	4.13	2.48	37.18	2613.4	338.23	0.0438	707	920
630	4	725.00	31.30	756.30	72	7	3.58	2.39	35.81	2210.5	256.51	0.0452	701	909
710	13	817.00	104.00	921.00	54	19	4.39	2.63	39.49	2945.6	381.50	0.0388	754	986
710	4	817.00	35.30	852.30	72	7	3.80	2.53	37.99	2491.3	288.75	0.0401	746	973
800	4	921.00	39.80	960.80	72	7	4.04	2.69	40.39	2807.1	326.38	0.0356	794	1041
800	8	921.00	76.70	997.70	84	7	3.74	3.74	41.14	3053.2	372.20	0.0350	803	1055
900	4	1036.00	44.80	1080.80	72	7	4.28	2.85	42.79	3158.0	366.32	0.0316	843	1112
900	8	1036.00	86.30	1122.30	84	7	3.96	3.96	43.56	3435.3	417.28	0.0312	851	1125
1000	8	1151.00	93.70	1244.70	84	19	4.18	2.51	45.99	3804.1	467.91	0.0281	896	1193
1120	8	1289.00	105.00	1394.00	84	19	4.42	2.65	48.61	4242.9	522.74	0.0251	946	1267

ALL ALUMINIUM ALLOY CONDUCTOR, ALUMINIUM CLAD STEEL REINFORCED (AACSR / AW)

IEC 61089/EN 50182 - Type A3/20SA



CODE NUMBER	STEEL RATIO	SECTIONAL AREA			STRANDING				DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
		ALLOY	CONDUCTOR SIZE	TOTAL	NO. OF WIRES		WIRE DIAMETER						@ 75°C	@ 85°C
					ALUMINIUM	STEEL	ALUMINIUM	STEEL						
-	%	(MM ²)	(MM ²)	(MM ²)	(NO.)	(NO)	(MM)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
16	17	18.60	3.10	21.70	6	1	1.99	1.99	5.97	71.4	10.35	1.7448	79	94
25	17	29.00	4.84	33.84	6	1	2.48	2.48	7.44	111.5	16.01	1.1190	104	124
40	17	46.50	7.75	54.25	6	1	3.14	3.14	9.42	178.5	25.42	0.6979	137	165
63	17	73.20	12.20	85.40	6	1	3.94	3.94	11.82	281.1	38.92	0.4433	180	218
100	6	116.00	6.46	122.46	18	1	2.87	2.87	14.35	362.2	46.49	0.2824	249	304
125	6	145.00	8.07	153.07	18	1	3.21	3.21	16.05	452.7	57.86	0.2259	284	349
125	16	145.00	23.70	168.70	26	7	2.67	2.07	16.89	557.1	80.07	0.2176	292	359
160	6	186.00	10.30	196.30	18	1	3.63	3.63	18.15	579.5	71.98	0.1761	328	405
160	7	186.00	13.30	199.30	26	7	3.02	2.35	19.13	733.5	78.54	0.1755	331	410
200	6	232.00	12.90	244.90	18	1	4.05	4.05	20.25	724.5	89.85	0.1412	372	463
200	16	232.00	37.80	269.80	26	7	3.37	2.62	21.34	891.5	124.49	0.1360	382	477
250	10	290.00	28.50	318.50	22	7	4.10	2.28	23.24	989.1	130.97	0.1113	428	536
250	16	290.00	47.30	337.30	26	7	3.77	2.93	23.87	1114.4	155.68	0.1088	434	545
315	16	366.00	59.60	425.60	26	7	4.23	3.29	26.79	1404.1	194.56	0.0862	495	627
315	7	366.00	25.30	391.30	45	7	3.22	2.15	25.77	1177.7	154.12	0.0893	477	603
400	7	465.00	32.10	497.10	45	7	3.63	2.42	29.04	1495.5	190.13	0.0703	546	695
400	13	465.00	60.20	525.20	54	7	3.31	3.31	29.79	1683.0	231.19	0.0688	554	706
450	7	523.00	36.10	559.10	45	7	3.85	2.56	30.78	1682.5	213.84	0.0625	582	744
450	13	523.00	67.80	590.80	54	7	3.51	3.51	31.59	1893.2	254.92	0.0612	590	757
500	7	581.00	40.20	621.20	45	7	4.05	2.70	32.40	1869.3	237.69	0.0563	616	791
500	13	581.00	75.30	656.30	54	7	3.70	3.70	33.30	2103.6	280.91	0.0551	625	805
560	7	651.00	45.00	696.00	45	7	4.29	2.86	34.32	2093.6	266.27	0.0502	656	846
560	13	651.00	82.40	733.40	54	19	3.92	2.35	35.27	2345.2	317.13	0.0492	665	860
630	13	732.00	92.70	824.70	54	19	4.15	2.49	37.35	2638.3	356.65	0.0438	708	920
630	4	732.00	31.60	763.60	72	7	3.60	2.40	36.00	2231.6	273.56	0.0451	702	910
710	13	825.00	104.00	929.00	54	19	4.41	2.65	39.71	2973.9	401.32	0.0388	754	987
710	4	825.00	35.60	860.60	72	7	3.82	2.55	38.21	2515.1	308.29	0.0401	747	974
800	4	930.00	40.20	970.20	72	7	4.05	2.70	40.50	2833.8	347.62	0.0355	795	1043
800	8	930.00	77.50	1007.50	84	7	3.75	3.75	41.25	3082.5	393.70	0.0350	803	1056
900	4	1046.00	45.20	1091.20	72	7	4.30	2.87	43.01	3188.0	390.96	0.0316	843	1113
900	8	1046.00	87.10	1133.10	84	7	3.98	3.98	43.78	3467.9	442.72	0.0311	853	1128
1000	8	1162.00	94.60	1256.60	84	19	4.20	2.52	46.20	3840.7	494.69	0.0281	897	1194
1120	8	1301.00	106.00	1407.00	84	19	4.44	2.66	48.82	4301.5	553.98	0.0251	946	1268



POWERLINE

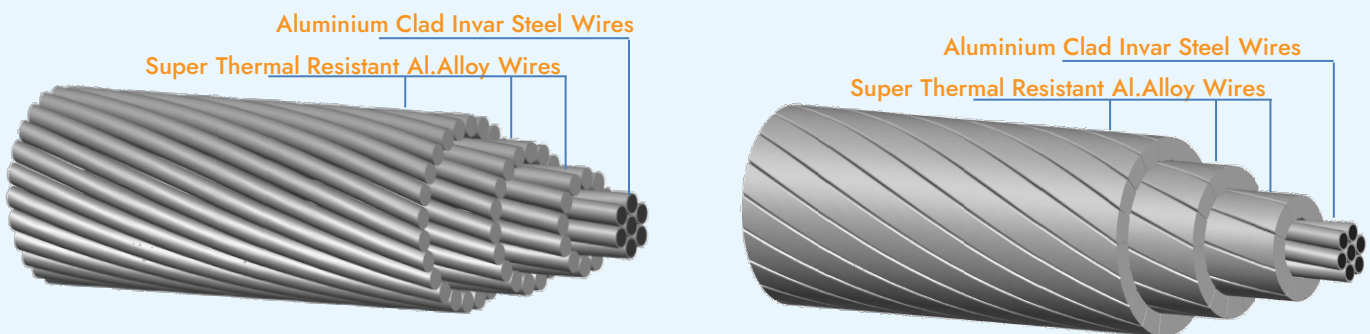
SUPER THERMAL

**RESISTANT ALUMINIUM ALLOY CONDUCTOR,
ALUMINIUM CLAD INVAR REINFORCED
(STACIR & STACIR/TW)**

These are high ampacity conductors with inner core composed of Aluminium clad Invar Steel (Ni-Fe Alloy) & outer layer composed of Super Thermal Resistant Aluminium alloy with round or trapezoidal shaped wires.

CONSTRUCTION:

Aluminium-Zirconium Alloy wires (Type-AT3), concentrically stranded over a Aluminium Clad Invar Steel core.



Values based on following Specifications:

- Super Thermal-resistant aluminium alloy wires (Type-AT3) for overhead line conductor as per IEC 62004
- Concentric lay overhead electrical stranded conductors IEC 61089, IEC 62219 or ASTM B779
- Aluminium-clad steel wires for electrical purposes IEC 61232, JCS 1404 & More

FEATURES:

- Offers optimal strength for line design
- Improved strength to weight ratio
- Ideal for extra long spans and heavy load conditions
- Excellent resistance to corrosion

* Current capacity based on referenced conductor temperature, 0.56 m/s wind, 0 m Elevation, 0.45 Emissivity, 0.80 absorptivity, 45°C Ambient temperature, 1045 W/m² Solar radiation.

SUPER THERMAL RESISTANT ALUMINIUM ALLOY CONDUCTOR, ALUMINIUM CLAD INVAR REINFORCED (STACIR)



CONDUCTOR SIZE	STRANDING				CROSS-SECTIONAL AREA			DIAMETER OF COMPLETE CONDUCTOR	WEIGHT			RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY		
	NO. OF WIRES		WIRE DIAMETER		STAL	INVAR	TOTAL		STAL	INVAR	TOTAL			@ 85°C	@ 150°C	@ 210°C
	STAL	INVAR	STAL	INVAR												
(MM ²)	(NO.)	(NO.)	(MM)	(MM)	(MM ²)	(MM ²)	(MM ²)	(MM)	(KG/KM)	(KG/KM)	(KG/KM)	(KN)	(Ω/KM)	(Ampere)	(Ampere)	(Ampere)
200	30	7	2.60	2.60	159.28	37.17	196.44	18.20	439.31	265.01	704.32	65.38	0.1746	403	690	850
240	30	7	2.90	2.90	198.16	46.24	244.39	20.30	546.54	329.69	876.23	79.92	0.1403	460	794	980
300	30	7	3.20	3.20	241.27	56.30	297.57	22.40	665.47	401.43	1066.9	94.82	0.1153	518	901	1114
300	30	7	3.20	3.20	241.27	56.30	297.57	22.40	665.47	401.43	1066.9	94.82	0.1153	518	901	1114
380	26	7	4.00	3.10	326.73	52.83	379.56	25.30	902.22	376.73	1278.95	104.26	0.0866	612	1076	1335
380	26	7	4.00	3.10	326.73	52.83	379.56	25.30	902.22	376.73	1278.95	104.26	0.0866	612	1076	1335
480	26	7	4.50	3.50	413.51	67.35	480.86	28.50	1141.87	480.23	1622.10	132.42	0.0684	704	1253	1559
480	26	7	4.50	3.50	413.51	67.35	480.86	28.50	1141.87	480.23	1622.10	132.42	0.0684	704	1253	1559
520	45	7	3.70	2.47	483.85	33.54	517.39	29.61	1337.00	239.17	1576.17	113.10	0.0597	748	1336	1665
520	45	7	3.70	2.47	483.85	33.54	517.39	29.61	1337.00	239.17	1576.17	113.10	0.0597	748	1336	1665
590	54	7	3.50	3.50	519.54	67.35	586.89	31.50	1437.04	480.23	1917.27	150.84	0.0549	790	1419	1771
600	54	7	3.53	3.53	528.49	68.51	596.99	31.77	1461.78	488.50	1950.28	152.20	0.0540	797	1434	1791
630	54	19	3.63	2.18	558.85	70.92	629.77	32.68	1545.78	507.40	2053.17	163.93	0.0511	824	1486	1857
690	54	7	3.80	3.80	612.42	79.39	691.81	34.20	1693.95	566.08	2260.0	176.38	0.0466	869	1576	1972
710	54	19	3.85	2.31	628.65	79.63	708.27	34.65	1738.82	569.72	2308.5	182.37	0.0454	883	1602	2006
730	45	7	4.40	2.90	684.24	46.24	730.48	35.10	1890.75	329.69	2220.4	155.82	0.0423	914	1663	2084
770	54	7	4.00	4.00	678.59	87.96	766.55	36.00	1876.95	627.24	2504.2	193.40	0.0421	922	1682	2108
800	54	19	4.09	2.45	709.47	89.57	799.04	36.79	1962.37	640.86	2603.2	205.51	0.0403	946	1729	2169
900	54	19	4.34	2.61	798.85	101.65	900.50	39.09	2209.6	727.30	2936.9	230.40	0.0357	1014	1868	2348

NOTE:

Current capacity based on referenced conductor temperature, 0.56 m/s wind, 0 m Elevation, 0.45 Emissivity, 0.80 absorptivity, 45°C Ambient temperature, 1045 W/m² Solar radiation

Customized conductor sizes based on customer's requirement can also be designed.

SUPER THERMAL RESISTANT ALUMINUM ALLOY CONDUCTOR, ALUMINUM CLAD INVAR REINFORCED (STACIR/TW)



CONDUCTOR SIZE	STRANDING				CROSS-SECTIONAL AREA			DIAMETER OF COMPLETE CONDUCTOR	WEIGHT			RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY		
	NO. OF WIRES		WIRE DIAMETER		STAL	INVAR	TOTAL		STAL	INVAR	TOTAL			@ 85°C	@ 150°C	@ 210°C
	STAL	INVAR	STAR	INVAR												
(MM ²)	(NO.)	(NO.)	(MM)	(MM)	(MM ²)	(MM ²)	(MM ²)	(MM)	(KG/KM)	(KG/KM)	(KG/KM)	(KN)	(Ω/KM)	(Ampere)	(Ampere)	(Ampere)
320	322.26	52.49	374.75	20	2	7	3.09	22.88	888.49	374.31	1262.80	100.95	0.0876	596	1039	1287
340	336.85	54.90	391.75	20	2	7	3.16	23.38	928.73	391.46	1320.19	105.55	0.0838	612	1069	1324
390	389.25	50.81	440.06	20	2	7	3.04	24.72	1073.18	362.29	1435.47	109.47	0.0731	662	1163	1442
405	402.83	52.15	454.98	20	2	7	3.08	25.14	1110.62	371.89	1482.51	112.86	0.0706	676	1189	1475
480	479.69	47.20	526.89	35	3	7	2.93	26.98	1329.03	336.55	1665.58	123.00	0.0600	733	1298	1613
490	489.57	63.55	553.13	24	2	7	3.40	27.70	1349.78	453.18	1802.96	136.19	0.0581	759	1347	1676
525	523.67	26.85	550.53	30	3	7	2.21	27.50	1450.88	191.47	1642.35	107.39	0.0556	763	1354	1685
590	586.76	41.28	628.03	33	3	7	2.74	29.40	1625.66	294.31	1919.97	131.16	0.0494	820	1464	1825
625	625.07	79.63	704.69	38	3	19	2.31	31.32	1731.79	569.72	2301.51	177.43	0.0458	862	1549	1935
640	636.97	44.03	681.00	35	3	7	2.83	30.60	1764.78	313.97	2078.8	141.60	0.0455	860	1542	1925
680	676.24	85.95	762.20	39	3	19	2.40	32.58	1873.58	614.97	2488.6	191.75	0.0423	903	1630	2037
690	688.96	47.52	736.48	36	3	7	2.94	31.80	1908.82	338.85	2247.7	151.77	0.0421	899	1620	2024
725	725.09	91.78	816.87	39	3	19	2.48	33.72	2008.2	656.66	2665.6	205.21	0.0395	940	1703	2131
730	726.41	91.78	818.19	39	3	19	2.48	33.75	2012.6	656.66	2669.2	205.41	0.0394	941	1705	2134
740	737.40	51.14	788.54	36	3	7	3.05	32.92	2043.0	364.68	2407.7	162.72	0.0393	936	1692	2117
780	776.92	98.56	875.49	39	3	19	2.57	34.90	2152.52	705.18	2857.7	218.33	0.0368	979	1780	2231
790	789.13	54.55	843.69	36	3	7	3.15	34.05	2186.36	388.98	2575.3	173.95	0.0367	973	1767	2213
820	821.87	108.79	930.65	39	3	19	2.70	36.00	2277.1	778.33	3055.4	235.56	0.0348	1012	1847	2316
840	839.80	58.07	897.88	36	3	7	3.25	35.14	2326.7	414.07	2740.81	185.14	0.0345	1008	1837	2304
880	876.90	111.22	988.11	42	3	19	2.73	37.10	2429.5	795.72	3225.2	246.40	0.0326	1050	1923	2414
890	891.08	61.70	952.78	42	3	7	3.35	36.18	2468.81	439.95	2908.8	195.42	0.0325	1043	1907	2394
900	901.93	73.54	975.47	42	3	19	2.22	36.70	2498.9	526.19	3025.0	213.21	0.0320	1054	1931	2425
980	976.36	123.77	1100.13	42	3	19	2.88	39.12	2705.0	885.56	3590.6	274.28	0.0293	1115	2056	2587
990	987.86	68.90	1056.76	42	3	7	3.54	38.10	2736.9	491.27	3228.2	217.12	0.0293	1105	2035	2560

NOTE:

Current capacity based on referenced conductor temperature, 0.56 m/s wind, 0 m Elevation, 0.45 Emissivity, 0.80 absorptivity, 45°C Ambient temperature, 1045 W/m² Solar radiation

Customized conductor sizes based on customer's requirement can also be designed.



POWERLINE

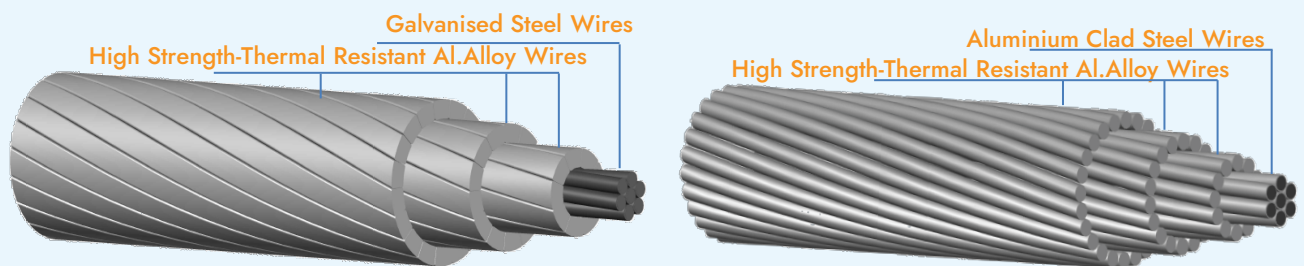
HIGH STRENGTH -

THERMAL RESISTANT ALUMINIUM CONDUCTOR STEEL REINFORCED (KTACSR & KTACSR/AW)

These are high ampacity conductors with inner core composed of Galvanized steel or Aluminum clad Steel & outer layer composed of high Strength - thermal resistant aluminium alloy with round or trapezoidal shaped.

CONSTRUCTION:

Aluminum-Zirconium Alloy wires (Type-AT2), concentrically stranded over a steel core.



Values based on following Specifications:

- High Strength - Thermal resistant aluminium alloy wires (Type-AT2) for overhead line conductor as per IEC 62004
- Round wire concentric lay overhead electrical stranded conductors IEC 61089
- Zinc-coated steel wires for stranded conductors IEC 888, ASTM B957 & more
- Aluminium Clad Steel Wires, IEC 61232, ASTM B415, EN 50540 & More

FEATURES:

- These can operate upto 150°C with specified strength loss
- Can carry 50 % to 80 % more current as that of ACSR of the same size.
- For large-crossing sections with reduced wind load of the tower.

* Current capacity based on referenced conductor temperature, 0.56 m/s wind, 0 m Elevation, 0.45 Emissivity, 0.80 absorptivity, 45°C Ambient temperature, 1045 W/m² Solar radiation.

SUPER THERMAL RESISTANT ALUMINUM ALLOY CONDUCTOR, ALUMINUM CLAD INVAR REINFORCED (STACIR/TW)



CONDUCTOR SIZE	STRANDING				CROSS-SECTIONAL AREA			DIAMETER OF COMPLETE CONDUCTOR	WEIGHT			RATED STRENGTH				DC RESISTANCE @ 20°C	CURRENT CAPACITY	
	NO. OF WIRES		WIRE DIAMETER		KTAL	STEEL	TOTAL		KTAL	STEEL	TOTAL	REGULAR STRENGTH	HS	EHS	UHS		@ 85°C	@ 150°C
	(NO.)	(NO.)	(MM)	(MM)														
(MM ²)	(NO.)	(NO.)	(MM)	(MM)	(MM ²)	(MM ²)	(MM ²)	(MM)	(KG/KM)	(KG/KM)	(KG/KM)	(KN)	(KN)	(KN)	(KN)	(Ω/KM)	(Ampere)	(Ampere)
58	6	1	3.50	3.50	57.73	9.62	67.35	10.50	158.42	74.84	233.26	25.84	27.19	28.15	28.49	0.5512	190	316
80	6	1	4.20	4.20	83.13	13.85	96.98	12.60	228.12	107.75	335.87	34.91	37.26	38.79	39.20	0.3828	238	399
80	15	4	2.60	2.60	79.64	21.24	100.88	13.00	219.14	168.22	387.36	46.94	49.70	51.93	52.67	0.4007	234	394
95	6	1	4.50	4.50	95.43	15.90	111.33	13.50	261.87	123.70	385.57	40.07	42.78	44.53	45.00	0.3335	258	436
100	15	4	2.90	2.90	99.08	26.42	125.50	14.50	272.63	209.25	481.88	58.09	61.53	64.30	65.23	0.3221	267	453
120	15	4	3.20	3.20	120.64	32.17	152.81	16.00	331.96	254.79	586.75	68.97	73.47	76.69	77.81	0.2645	301	514
120	30	7	2.30	2.30	124.64	29.08	153.72	16.10	343.77	227.22	570.99	67.26	71.04	74.09	75.11	0.2566	327	559
160	30	7	2.60	2.60	159.28	37.17	196.45	18.20	439.32	290.43	729.75	87.08	91.91	95.81	97.11	0.2008	380	655
200	30	7	2.90	2.90	198.16	46.24	244.4	20.30	546.55	361.29	907.84	107.74	113.75	118.60	120.22	0.1614	433	753
240	30	7	3.20	3.20	241.27	56.30	297.57	22.40	665.46	439.90	1105.4	127.96	135.84	141.47	143.44	0.1326	488	855
330	26	7	4.00	3.10	326.73	52.83	379.56	25.30	902.23	412.78	1315.0	143.27	150.67	155.95	157.80	0.0980	581	1029
410	26	7	4.50	3.50	413.51	67.35	480.86	28.50	1141.9	526.24	1668.1	176.55	185.98	192.72	195.08	0.0774	669	1199
480	45	7	3.70	2.47	483.85	33.54	517.39	29.61	1337.0	262.06	1599.0	162.93	167.29	170.81	171.98	0.0662	718	1292
520	54	7	3.50	3.50	519.54	67.35	586.89	31.50	1437.0	526.24	1963.3	208.72	218.15	224.89	227.24	0.0617	753	1363
560	54	19	3.63	2.18	558.85	70.92	629.77	32.68	1545.8	556.01	2101.8	227.59	237.52	244.61	246.74	0.0574	786	1428
610	54	7	3.80	3.80	612.42	79.39	691.81	34.20	1693.9	620.31	2314.3	240.48	253.98	262.71	265.09	0.052	829	1513
630	54	19	3.85	2.31	628.65	79.63	708.28	34.65	1738.8	624.29	2363.1	251.55	261.90	270.26	273.05	0.0510	842	1540
680	45	7	4.40	2.90	684.24	46.24	730.48	35.10	1890.7	361.29	2252.0	213.14	219.15	224.01	225.63	0.0468	879	1610
680	54	7	4.00	4.00	678.59	87.96	766.55	36.00	1877.0	687.27	2564.2	264.42	279.37	289.05	291.69	0.0473	880	1616
710	54	19	4.09	2.45	709.47	89.57	799.04	36.79	1962.4	702.22	2664.6	274.28	285.92	295.33	298.46	0.045	904	1663
800	54	19	4.34	2.61	798.85	101.65	900.5	39.09	2209.6	796.93	3006.5	309.85	323.07	333.74	337.30	0.040	968	1793
810	45	7	4.80	3.20	814.30	56.30	870.60	38.40	2250.1	439.90	2690.0	244.89	252.77	258.40	260.37	0.0394	972	1798
1120	72	19	4.45	1.78	1119.81	47.28	1167.1	44.50	3097.1	370.67	3467.7	313.89	320.51	325.24	326.66	0.0286	1172	2214
1160	84	7	4.20	4.20	1163.8	96.98	1260.7	46.20	3221.2	757.75	3978.9	375.31	391.80	402.47	405.38	0.0276	1203	2283
1250	84	19	4.35	2.61	1248.4	101.65	1350.0	47.85	3455.4	796.93	4252.3	411.00	424.21	434.89	438.45	0.0257	1251	2385
1520	84	7	4.80	4.80	1520.0	126.67	1646.7	52.80	4207.3	989.73	5197.0	475.01	487.68	510.48	514.28	0.0211	1387	2687

NOTE:

Current capacity based on referenced conductor temperature, 0.56 m/s wind, 0 m Elevation, 0.45 Emissivity, 0.80 absorptivity, 45°C Ambient temperature, 1045 W/m² Solar radiation

Customized conductor sizes based on customer's requirement can also be designed.

HIGH STRENGTH-THERMAL RESISTANT ALUMINIUM CONDUCTOR, ALUMINUM CLAD STEEL REINFORCED - (KTACSR/AW)



CONDUCTOR SIZE	STRANDING				CROSS-SECTIONAL AREA			DIAMETER OF COMPLETE CONDUCTOR	WEIGHT			RATED STRENGTH		DC RESISTANCE @ 20°C	CURRENT CAPACITY	
	NO. OF WIRES		WIRE DIAMETER		KTAL	STEEL	TOTAL		KTAL	STEEL	TOTAL	HIGH STRENGTH	EXTRA HIGH STRENGTH		@ 85°C	@ 150°C
	(NO.)	(NO.)	(MM)	(MM)												
(MM ²)	(NO.)	(NO.)	(MM)	(MM)	(MM ²)	(MM ²)	(MM ²)	(MM)	(KG/KM)	(KG/KM)	(KG/KM)	(KN)	(KN)	(Ω/KM)	(Ampere)	(Ampere)
58	6	1	3.50	3.50	57.73	9.62	67.35	10.50	158.42	63.39	221.81	24.88	26.71	0.5380	192.57	320.32
80	6	1	4.20	4.20	83.13	13.85	96.98	12.60	228.12	91.27	319.39	33.53	36.71	0.3737	240.40	404.22
80	15	4	2.60	2.60	79.64	21.24	100.88	13.00	219.14	142.49	361.63	45.24	48.64	0.3647	245.01	412.77
95	6	1	4.50	4.50	95.43	15.90	111.33	13.50	261.87	104.78	366.65	37.85	42.14	0.3255	261.45	441.51
100	15	4	2.90	2.90	99.08	26.42	125.50	14.50	272.63	177.24	449.87	55.98	60.21	0.2932	279.75	474.62
120	15	4	3.20	3.20	120.64	32.17	152.81	16.00	331.96	215.82	547.78	67.68	71.86	0.2408	315.24	538.43
120	30	7	2.30	2.30	124.64	29.08	153.72	16.10	343.77	192.47	536.24	64.93	69.58	0.2363	341.17	582.97
160	30	7	2.60	2.60	159.28	37.17	196.45	18.20	439.32	246.01	685.33	84.10	90.05	0.1849	395.76	682.28
200	30	7	2.90	2.90	198.16	46.24	244.40	20.30	546.55	306.03	852.58	104.03	111.43	0.1486	451.57	785.07
240	30	7	3.20	3.20	241.27	56.30	297.57	22.40	665.46	372.61	1038.07	125.71	133.02	0.1220	508.49	891.13
330	26	7	4.00	3.10	326.73	52.83	379.56	25.30	902.23	349.64	1251.87	141.16	148.02	0.0925	598.14	1059.5
410	26	7	4.50	3.50	413.51	67.35	480.86	28.50	1141.86	445.75	1587.61	169.82	182.61	0.0730	688.93	1233.87
480	45	7	3.70	2.47	483.85	33.54	517.39	29.61	1337.01	221.98	1558.99	156.85	162.22	0.0646	726.87	1307.22
520	54	7	3.50	3.50	519.54	67.35	586.89	31.50	1437.04	445.75	1882.79	201.98	214.78	0.0589	770.64	1394.24
560	54	19	3.63	2.18	558.85	70.92	629.77	32.68	1545.77	470.96	2016.73	219.79	233.26	0.0548	804.18	1460.5
610	54	7	3.80	3.80	612.42	79.39	691.81	34.20	1693.94	525.43	2219.37	234.92	250.80	0.0500	848.50	1548.62
630	54	19	3.85	2.31	628.65	79.63	708.28	34.65	1738.83	528.80	2267.6	245.17	257.91	0.0487	861.64	1574.88
680	45	7	4.40	2.90	684.24	46.24	730.48	35.10	1890.74	306.03	2196.77	209.44	216.84	0.0457	889.44	1629.1
680	54	7	4.00	4.00	678.59	87.96	766.55	36.00	1876.97	582.15	2459.1	258.26	275.85	0.0451	901.03	1653.98
710	54	19	4.09	2.45	709.47	89.57	799.04	36.79	1962.38	594.81	2557.19	267.12	281.45	0.0432	923.84	1700.10
800	54	19	4.34	2.61	798.85	101.65	900.50	39.09	2209.6	675.03	2884.6	301.72	317.98	0.0384	989.12	1833.39
810	45	7	4.80	3.20	814.30	56.30	870.60	38.40	2250.1	372.61	2622.8	242.63	249.95	0.0384	983.55	1820.68
1120	72	19	4.45	1.78	1119.81	47.28	1167.09	44.50	3097.1	313.97	3411.04	308.70	317.68	0.0282	1179.57	2228.9
1160	84	7	4.20	4.20	1163.77	96.98	1260.75	46.20	3221.17	641.85	3863.0	365.62	387.92	0.0268	1219.59	2314.31
1250	84	19	4.35	2.61	1248.39	101.65	1350.0	47.85	3455.4	675.03	4130.41	402.86	419.13	0.0250	1266.16	2415.5
1520	84	7	4.80	4.80	1520.0	126.67	1646.70	52.80	4207.3	838.34	5045.6	453.47	491.48	0.0205	1403.81	2722.0

NOTE:

Current capacity based on referenced conductor temperature, 0.56 m/s wind, 0 m Elevation, 0.45 Emissivity, 0.80 absorptivity, 45°C Ambient temperature, 1045 W/m² Solar radiation

Customized conductor sizes based on customer's requirement can also be designed.

HIGH STRENGTH - THERMAL RESISTANT ALUMINIUM CONDUCTOR STEEL REINFORCED - (KTACSR/TW)



CONDUCTOR SIZE	CROSS-SECTIONAL AREA			STRANDING				DIAMETER OF COMPLETE CONDUCTOR	WEIGHT			RATED STRENGTH				DC RESISTANCE @ 20°C	CURRENT CAPACITY	
	KTAL	STEEL	TOTAL	NO. OF KTAL WIRES	NO. OF KTAL LAYERS	NO. OF STEEL WIRES	DIA. OF STEEL WIRES		KTAL	STEEL	TOTAL	REGULAR STRENGTH	HS	EHS	UHS		@ 85°C	@ 150°C
(MM ²)	(MM ²)	(MM ²)	(MM ²)	(NO.)	(NO.)	(NO.)	(MM)	(MM)	(KG/KM)	(KG/KM)	(KG/KM)	(KN)	(KN)	(KN)	(KN)	(Ω/KM)	(AMPERE)	(AMPERE)
170	170.45	9.46	179.91	14	2	1	3.47	15.60	469.95	73.57	543.52	52.30	53.62	54.57	54.90	0.1876	380	648
205	205.26	11.70	216.97	14	2	1	3.86	17.12	565.93	91.04	656.97	59.88	61.87	63.16	63.51	0.1558	425	730
240	241.7	39.19	280.89	18	2	7	2.67	19.44	666.37	306.23	972.60	104.55	109.64	113.76	115.13	0.1323	474	822
280	281.98	45.92	327.90	20	2	7	2.89	21.00	777.43	358.78	1136.2	122.22	128.19	133.01	134.62	0.1133	521	908
290	289.68	37.74	327.42	18	2	7	2.62	21.00	798.67	294.87	1093.5	110.59	115.49	119.46	120.78	0.1104	527	919
320	322.26	52.49	374.75	20	2	7	3.09	20.45	888.49	410.16	1298.7	134.38	141.72	146.97	148.81	0.0993	553	962
340	336.85	54.90	391.75	20	2	7	3.16	22.94	928.73	428.95	1357.7	140.50	148.18	153.67	155.59	0.095	579	1017
390	389.25	50.81	440.06	20	2	7	3.04	24.35	1073.2	396.99	1470.1	146.69	153.80	160.66	162.44	0.0821	630	1112
405	402.83	52.15	454.98	20	2	7	3.08	24.75	1110.6	407.51	1518.1	151.28	158.58	163.80	165.62	0.0794	642	1136
480	479.69	47.20	526.89	35	3	7	2.93	26.64	1329.0	368.78	1697.8	168.34	174.48	179.44	181.09	0.0670	692	1224
490	489.57	63.55	553.13	24	2	7	3.40	27.28	1349.8	496.58	1846.4	184.06	192.96	199.32	201.54	0.0653	705	1249
525	523.67	26.85	550.53	30	3	7	2.21	27.28	1450.9	209.81	1660.7	147.76	151.52	154.21	155.01	0.0613	726	1287
590	586.76	41.28	628.03	33	3	7	2.74	29.10	1625.7	322.50	1948.2	178.99	184.36	188.69	190.13	0.0548	778	1387
625	625.07	79.63	704.69	38	3	19	2.31	30.80	1731.8	624.28	2356.0	236.31	246.67	255.03	257.81	0.0514	812	1457
640	636.97	44.03	681.00	35	3	7	2.83	30.30	1764.8	344.04	2108.8	193.31	199.03	203.66	205.20	0.050	816	1462
680	676.24	85.95	762.20	39	3	19	2.40	32.02	1873.6	673.87	2547.4	255.41	266.58	275.61	278.62	0.0476	850	1530
690	688.96	47.52	736.48	36	3	7	2.94	31.52	1908.9	371.30	2280.1	208.95	215.13	220.12	221.78	0.0467	854	1536
725	725.09	91.78	816.87	39	3	19	2.48	33.15	2008.2	719.55	2728.5	273.37	285.30	294.94	298.15	0.0443	886	1602
730	726.41	91.78	818.19	39	3	19	2.48	33.18	2012.6	719.55	2732.1	273.65	285.58	295.22	298.43	0.044	887	1604
740	737.4	51.14	788.54	36	3	7	3.05	32.60	2043.0	399.61	2442.6	221.96	229.12	234.24	236.03	0.0435	890	1606
780	776.92	98.56	875.49	39	3	19	2.57	34.30	2152.5	772.72	2925.2	293.20	306.02	316.36	319.81	0.0413	923	1675
790	789.13	54.55	843.69	36	3	7	3.15	33.74	2186.4	426.24	2612.6	237.31	244.95	250.41	252.31	0.0407	925	1676
820	821.87	108.79	930.65	39	3	19	2.70	35.40	2277.0	852.87	3130.0	315.95	330.09	341.51	345.32	0.0391	954	1736
840	839.8	58.07	897.88	36	3	7	3.25	34.80	2326.7	453.73	2780.5	252.57	260.70	266.50	268.54	0.0383	958	1742
880	876.9	111.22	988.11	42	3	19	2.73	36.45	2429.5	871.93	3301.4	330.89	345.34	357.02	360.91	0.0367	989	1806
890	891.08	61.70	952.78	42	3	7	3.35	35.86	2468.8	482.08	2950.9	268.09	276.73	282.90	285.06	0.0361	991	1808
900	901.93	73.54	975.47	42	3	19	2.22	36.28	2498.9	576.58	3075.4	290.26	300.55	307.91	310.11	0.0357	999	1825
980	976.36	123.77	1100.13	42	3	19	2.88	38.48	2705.0	970.38	3675.5	368.35	384.44	397.43	401.77	0.0329	1053	1936
990	987.86	68.90	1056.76	42	3	7	3.54	37.76	2736.9	538.32	3275.3	293.00	304.72	314.36	316.77	0.0325	1051	1932
1090	1092.4	88.84	1181.29	64	4	19	2.44	39.91	3041.5	696.52	3738.0	348.59	360.14	369.47	372.58	0.0296	1136	2116
1330	1331.3	108.79	1440.04	64	4	19	2.70	44.07	3706.3	852.87	4559.2	425.47	439.61	451.03	454.84	0.024	1268	2396

NOTE:

Current capacity based on referenced conductor temperature, 0.56 m/s wind, 0 m Elevation, 0.45 Emissivity, 0.80 absorptivity, 45°C Ambient temperature, 1045 W/m² Solar radiation

Customized conductor sizes based on customer's requirement can also be designed.



POWERLINE

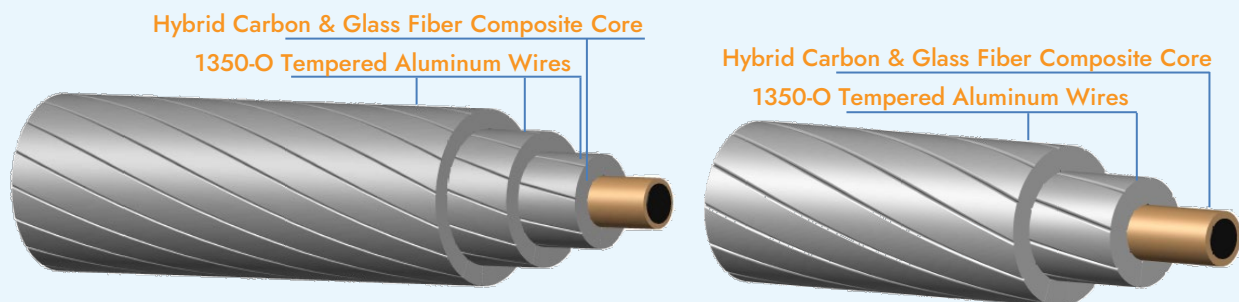
ALUMINUM CONDUCTOR

**Composite Core
(ACCC®)**

These are "High-temperature low-sag" (HTLS) Conductors with excellent electrical characteristics, excellent sag-tension characteristics and superior corrosion resistance to that of ACSR. As compared to ACSR they have lighter weight, comparable strength and current carrying capacity, lower electrical losses and superior corrosion resistance have given this conductor wide acceptance as a transmission conductor. It has found limited use, however, as a distribution conductor.

CONSTRUCTION:

Fully annealed trapezoidal shaped aluminium wires concentrically stranded over hybrid carbon and glass fiber core (Composite Core)



Values based on following Specifications:

- 1350-O tempered aluminum wires as per ASTM B 609 or EN 50540
- Hybrid carbon and glass fiber core (Composite Core) according to ASTM B987
- ACCC® Conductors are required to exhibit lay lengths (ratios) that conform to ASTM B 857 or EN 50540.

FEATURES:

- Can be operated up to 180°C
- Lowest sag among the HTLS category due to lowest coefficient of thermal expansion and higher strength to weight ratio.
- Highest Conductivity Conductor.

* Current capacity based on referenced conductor temperature, 0.56 m/s wind, 0 m Elevation, 0.45 Emissivity, 0.80 absorptivity, 45°C Ambient temperature, 1045 W/m² Solar radiation.



CONDUCTOR NAME	CROSS-SECTIONAL AREA			DIAMETER		WEIGHT		RATED STRENGTH			DC RESISTANCE @20° C	CURRENT CAPACITY		
	AL	CORE	TOTAL	CONDUCTOR	CORE	ALUMINIUM	CORE	TOTAL	CORE	CONDUCTOR		@ 85°C	@ 150°C	@ 180°C
ACCC®	(mm ²)	(mm ²)	(mm ²)	(mm)	(mm)	(Kg/Km)	(Kg/Km)	(Kg/Km)	(KN)	(KN)	(Ω/Km)	(Ampere)	(Ampere)	(Ampere)
US Customary Sizes														
OCEANSIDE	194.20	28.00	222.20	17.27	5.97	534.00	54.00	588.00	59.60	70.30	0.1441	439	633	841
LINNET	218.10	28.00	246.10	18.29	5.97	600.00	54.00	654.00	59.60	71.60	0.1277	472	683	908
ORIOLE	222.30	39.70	262.00	18.82	7.11	611.00	76.00	687.00	85.00	97.50	0.1255	479	694	924
WACO	230.10	47.10	277.20	19.56	7.75	637.00	86.00	723.00	101.00	113.90	0.1212	491	714	951
LAREDO	268.40	39.70	308.10	20.50	7.11	738.00	76.00	814.00	85.00	99.70	0.1038	536	780	1042
IRVING	308.80	60.30	369.10	22.40	8.76	852.00	113.00	965.00	129.00	146.30	0.0903	585	857	1147
HAWK	309.70	39.70	349.40	21.79	7.11	852.00	76.00	928.00	85.00	102.30	0.0900	582	852	1140
DOVE	361.50	47.10	408.60	23.55	7.75	999.00	86.00	1085.00	101.00	121.00	0.0771	639	939	1260
AMARILLO	397.60	71.30	468.90	25.14	9.53	1098.00	132.00	1230.00	151.70	173.90	0.0702	678	1001	1347
GROSBEAK	416.20	51.90	468.10	25.15	8.13	1146.00	98.00	1244.00	110.80	133.90	0.0672	693	1023	1376
LUBBOCK	458.00	60.30	518.30	26.42	8.76	1262.00	113.00	1375.00	129.00	154.40	0.0608	735	1089	1468
GALVESTON	512.40	60.30	572.70	27.69	8.76	1412.00	113.00	1525.00	129.00	157.50	0.0544	784	1165	1573
DRAKE	519.70	71.30	591.00	28.14	9.53	1434.00	132.00	1566.00	151.70	180.60	0.0536	792	1179	1593
CURLEW	523.40	87.30	610.70	28.96	10.54	1454.00	164.00	1618.00	185.90	215.30	0.0535	798	1190	1609
PLANO	536.80	60.30	597.10	28.63	8.76	1483.00	113.00	1596.00	129.00	158.80	0.0522	805	1200	1622
CORPUS CHRISTI	558.90	60.30	619.20	29.11	8.76	1543.00	113.00	1656.00	129.00	160.10	0.0501	824	1230	1663
ARLINGTON	583.20	71.30	654.50	29.90	9.53	1614.00	132.00	1746.00	151.70	184.20	0.0480	846	1265	1713
CARDINAL	619.10	60.30	679.40	30.43	8.76	1710.00	113.00	1823.00	129.00	163.70	0.0452	874	1308	1774
FORT WORTH	658.90	71.30	730.20	31.50	9.53	1821.00	132.00	1953.00	151.70	188.60	0.0425	906	1361	1848
EL PASO	684.00	60.30	744.30	31.80	8.76	1888.00	113.00	2001.00	129.00	167.30	0.0409	924	1390	1888
BEAUMONT	723.90	71.30	795.20	32.87	9.53	2005.0	132.00	2137.00	151.70	192.20	0.0387	956	1441	1960
SAN ANTONIO	747.30	71.30	818.60	33.40	9.78	2076.00	132.00	2208.00	160.10	201.90	0.0375	973	1469	2000
BITTERN	801.40	60.30	861.70	34.16	8.76	2217.00	113.00	2330.00	129.00	173.90	0.0352	1006	1522	2075
DALLAS	909.50	75.10	984.60	36.88	9.78	2525.00	143.00	2668.00	160.10	211.30	0.0309	1086	1654	2263
HOUSTON	976.60	87.30	1063.90	38.25	10.54	2713.00	164.00	2877.00	185.90	240.60	0.0285	1135	1736	2380
LAPWING	987.50	75.10	1062.60	38.20	9.78	2741.00	143.00	2884.00	160.10	215.30	0.0285	1134	1734	2378
FALCON	1036.20	87.30	1123.50	39.24	10.54	2878.00	164.00	3042.00	185.90	244.20	0.0271	1167	1789	2457
CHUKAR	1135.80	79.10	1214.90	40.74	10.03	3157.00	147.00	3304.00	169.50	233.10	0.0247	1224	1884	2595
BLUEBIRD	1388.70	87.30	1476.00	44.75	10.54	3857.00	164.00	4021.00	185.90	263.70	0.0203	1353	2107	2922

NOTE:

Current capacity based on referenced conductor temperature, 0.56 m/s wind, 0 m Elevation, 0.45 Emissivity, 0.80 absorptivity, 45°C Ambient temperature, 1045 W/m² Solar radiation
 Customized conductor sizes based on customer's requirement can also be designed.



CONDUCTOR NAME	CROSS-SECTIONAL AREA			DIAMETER		WEIGHT		RATED STRENGTH			DC RESISTANCE @20° C	CURRENT CAPACITY		
	AL	CORE	TOTAL	CONDUCTOR	CORE	ALUMINIUM	CORE	TOTAL	CORE	CONDUCTOR		@ 85°C	@ 150°C	@ 180°C
ACCC®	(mm ²)	(mm ²)	(mm ²)	(mm)	(mm)	(Kg/Km)	(Kg/Km)	(Kg/Km)	(KN)	(KN)	(Ω/Km)	(Ampere)	(Ampere)	(Ampere)
International Sizes														
SILVASSA	122.70	28.00	150.70	14.35	5.97	338.00	54.00	392.00	59.60	66.50	0.2286	335	479	632
HELSINKI	150.60	28.00	178.60	15.65	5.97	415.00	54.00	469.00	59.60	68.10	0.1862	378	543	719
JAIPUR	155.70	47.10	202.80	16.51	7.75	436.00	86.00	522.00	101.00	109.80	0.1801	389	560	742
ZADAR	177.40	39.70	217.10	17.09	7.11	488.00	76.00	564.00	85.00	95.00	0.1576	419	604	802
ROVINJ	187.80	28.00	215.80	17.09	5.97	521.00	54.00	575.00	59.60	70.20	0.1487	431	622	825
COPENHAGEN	219.90	28.00	247.90	18.29	5.97	605.00	54.00	659.00	59.60	72.00	0.1272	473	684	910
REYKJAVIK	223.10	39.70	262.80	18.82	7.11	616.00	76.00	692.00	85.00	97.50	0.1256	479	694	924
MONTE CARLO	228.50	87.30	315.80	20.78	10.54	634.00	164.00	798.00	185.90	198.80	0.1230	494	720	962
GLASGOW	236.70	47.10	283.80	19.53	7.75	657.00	86.00	743.00	101.00	114.30	0.1184	497	722	962
GDANSK	248.80	28.00	276.80	19.20	5.97	687.00	54.00	741.00	59.60	73.60	0.1126	507	736	981
CASABLANCA	273.60	39.70	313.30	20.50	7.11	756.00	76.00	832.00	85.00	100.40	0.1024	539	786	1049
OSLO	313.80	60.30	374.10	22.40	8.76	868.00	113.00	981.00	129.00	146.70	0.0893	588	861	1154
LISBON	315.50	39.70	355.20	21.79	7.11	870.00	76.00	946.00	85.00	102.70	0.0887	587	858	1148
AMSTERDAM	367.40	47.10	414.50	23.55	7.75	1018.00	86.00	1104.00	101.00	121.70	0.0762	643	944	1267
25 MM	383.20	87.30	470.50	24.99	10.54	1058.00	164.00	1222.00	185.90	207.30	0.0730	665	981	1319
CORDOBA	399.40	47.10	446.50	24.41	7.75	1105.00	86.00	1191.00	101.00	123.50	0.0700	675	994	1336
LEIPZIG	406.40	71.30	477.70	25.15	9.53	1126.00	132.00	1258.00	151.70	174.60	0.0690	684	1010	1358
BRUSSELS	421.40	51.90	473.30	25.15	8.13	1166.00	98.00	1264.00	110.80	134.50	0.0666	696	1028	1382
STOCKHOLM 3L	453.70	60.30	514.00	26.39	8.76	1255.00	113.00	1368.00	129.00	154.50	0.0617	730	1081	1457
STOCKHOLM 2L	463.30	60.30	523.60	26.39	8.76	1282.00	113.00	1395.00	129.00	155.10	0.0605	737	1092	1471
WARSAW	507.50	60.30	567.80	27.71	8.76	1406.00	113.00	1519.00	129.00	157.60	0.0553	778	1156	1561
DUBLIN	524.50	71.30	595.80	28.14	9.53	1452.00	132.00	1584.00	151.70	181.20	0.0534	794	1181	1596
KOLKATA	543.50	71.30	614.80	28.63	9.53	1512.00	132.00	1644.00	151.70	182.30	0.0517	809	1206	1630
MAHAKAM	544.90	87.30	632.20	29.01	10.54	1505.00	164.00	1669.00	185.90	216.50	0.0514	814	1214	1642
HAMBURG	546.40	60.30	606.70	28.63	8.76	1514.00	113.00	1627.00	129.00	159.70	0.0514	811	1209	1634
MILAN	567.70	60.30	628.00	29.11	8.76	1573.00	113.00	1686.00	129.00	160.90	0.0494	830	1238	1675
ROME	592.50	71.30	663.80	29.90	9.53	1643.00	132.00	1775.00	151.70	185.00	0.0474	851	1273	1724
VIENNA	629.20	60.30	689.50	30.43	8.76	1739.00	113.00	1852.00	129.00	164.40	0.0445	880	1318	1787
BUDAPEST	668.30	71.30	739.60	31.50	9.53	1852.00	132.00	1984.00	151.70	189.30	0.0420	912	1369	1859
MUMBAI	685.40	71.30	756.70	31.78	9.53	1904.00	132.00	2036.00	151.70	190.30	0.0410	924	1388	1886

NOTE:

Current capacity based on referenced conductor temperature, 0.56 m/s wind, 0 m Elevation, 0.45 Emmisivity, 0.80 absorptivity, 45°C Ambient temperature, 1045 W/m² Solar radiation

Customized `s based on customer`s requirement can also be designed.



CONDUCTOR NAME	CROSS-SECTIONAL AREA			DIAMETER		WEIGHT		RATED STRENGTH			DC RESISTANCE @20° C	CURRENT CAPACITY		
	AL	CORE	TOTAL	CONDUCTOR	CORE	ALUMINIUM	CORE	TOTAL	CORE	CONDUCTOR		@ 85°C	@ 150°C	@ 180°C
ACCC®	(mm ²)	(mm ²)	(mm ²)	(mm)	(mm)	(Kg/Km)	(Kg/Km)	(Kg/Km)	(KN)	(KN)	(Ω/Km)	(Ampere)	(Ampere)	(Ampere)
International Sizes														
PRAGUE	690.70	60.30	751.00	31.78	8.76	1917.00	113.00	2030.00	129.00	167.90	0.0407	926	1393	1892
DHAKA	723.90	71.30	795.20	32.87	9.53	2005.0	132.00	2137.00	151.70	192.40	0.0387	956	1441	1960
MUNICH	733.20	71.30	804.50	32.84	9.53	2039.00	132.00	2171.00	151.70	192.90	0.0384	959	1446	1967
WARWICK	749.50	87.30	836.80	33.40	10.54	2078.00	164.00	2242.00	185.90	228.10	0.0375	974	1470	2001
LONDON	759.00	75.10	834.10	33.40	9.78	2102.00	143.00	2245.00	160.10	202.80	0.0370	980	1479	2013
PARIS	813.70	60.30	874.00	34.16	8.76	2253.00	113.00	2366.00	129.00	174.80	0.0345	1016	1537	2096
BORDEAUX	880.90	87.30	968.20	35.76	10.54	2437.00	164.00	2601.00	185.90	235.50	0.0318	1066	1619	2213
ANTWERP	944.90	75.10	1020.00	36.86	9.78	2614.00	143.00	2757.00	160.10	213.30	0.0297	1106	1685	2306
BERLIN	1006.50	87.30	1093.80	38.20	10.54	2784.00	164.00	2948.00	185.90	242.50	0.0278	1148	1755	2407
MADRID	1013.10	75.10	1088.20	38.20	9.78	2801.00	143.00	2944.00	160.10	217.10	0.0276	1151	1760	2414
ATHENS	1409.70	87.30	1497.00	44.75	10.54	3900.00	164.00	4064.0	185.90	265.20	0.0199	1364	2125	2949
US Customary ULS Sizes†														
ULS IRVING	308.80	60.30	369.10	22.40	8.76	851.00	109.00	960.00	156.10	173.40	0.0903	585	857	1147
ULS AMARILLO	397.60	71.30	468.90	25.14	9.53	1097.00	128.00	1225.00	183.30	205.50	0.0702	678	1001	1347
ULS LUBBOCK	458.00	60.30	518.30	26.42	8.76	1261.00	109.00	1370.00	156.10	181.50	0.0608	735	1089	1468
ULS GALVESTON	512.40	60.30	572.70	27.69	8.76	1411.00	109.00	1520.00	156.10	184.60	0.0544	784	1165	1573
ULS DRAKE	519.70	71.30	591.00	28.14	9.53	1433.00	128.00	1561.00	183.30	212.20	0.0536	792	1179	1593
ULS CURLEW	523.40	87.30	610.70	28.96	10.54	1455.00	157.00	1612.00	225.10	254.50	0.0535	798	1190	1609
ULS PLANO	536.80	60.30	597.10	28.63	8.76	1482.00	109.00	1591.00	156.10	185.90	0.0522	805	1200	1622
ULS CORPUS CHRISTI	558.90	60.30	619.20	29.11	8.76	1542.00	109.00	1651.00	156.10	187.20	0.0501	824	1230	1663
ULS ARLINGTON	583.20	71.30	654.50	29.90	9.53	1613.00	128.00	1741.00	183.30	215.80	0.0480	846	1265	1713
ULS CARDINAL	619.10	60.30	679.40	30.43	8.76	1709.00	109.00	1818.00	156.10	190.80	0.0452	874	1308	1774
ULS FORT WORTH	658.90	71.30	730.20	31.50	9.53	1820.00	128.00	1948.00	183.30	220.20	0.0425	906	1361	1848
ULS EL PASO	684.00	60.30	744.30	31.80	8.76	1887.00	109.00	1996.00	156.10	194.40	0.0409	924	1390	1888
ULS BEAUMONT	723.90	71.30	795.20	32.87	9.53	2005.0	128.00	2133.00	183.30	223.80	0.0387	956	1441	1960
ULS SAN ANTONIO	747.30	75.10	822.40	33.40	9.78	2068.00	135.00	2203.00	193.50	235.30	0.0375	973	1469	2000
ULS BITTERN	801.40	60.30	861.70	34.16	8.76	2216.00	109.00	2325.00	156.10	201.00	0.0352	1006	1522	2075
ULS DALLAS	909.50	75.10	984.60	36.88	9.78	2528.00	135.00	2663.00	193.50	244.70	0.0309	1086	1654	2263
ULS HOUSTON	976.60	87.30	1063.90	38.25	10.54	2714.00	157.00	2871.00	225.10	279.80	0.0285	1135	1736	2380
ULS LAPWING	987.50	75.10	1062.60	38.20	9.78	2744.00	135.00	2879.00	193.50	248.70	0.0285	1134	1734	2378
ULS FALCON	1036.20	87.30	1123.50	39.24	10.54	2879.00	157.00	3036.00	225.10	283.40	0.0271	1167	1789	2457
ULS CHUKAR	1135.80	79.10	1214.90	40.74	10.03	3156.00	142.00	3298.00	205.10	268.70	0.0247	1224	1884	2595
ULS BLUEBIRD	1388.70	87.30	1476.00	44.75	10.54	3858.00	157.00	4015.00	225.10	302.90	0.0203	1353	2107	2922



CONDUCTOR NAME	CROSS-SECTIONAL AREA			DIAMETER		WEIGHT		RATED STRENGTH			DC RESISTANCE @20° C	CURRENT CAPACITY		
	AL	CORE	TOTAL	CONDUCTOR	CORE	ALUMINIUM	CORE	TOTAL	CORE	CONDUCTOR		@ 85°C	@ 150°C	@ 180°C
ACCC®	(mm²)	(mm²)	(mm²)	(mm)	(mm)	(Kg/Km)	(Kg/Km)	(Kg/Km)	(KN)	(KN)	(Ω/Km)	(Ampere)	(Ampere)	(Ampere)
US Customary ULS Sizes†														
ULS MONTE CARLO	228.50	87.30	315.80	20.78	10.54	635.00	157.00	792.00	225.10	238.00	0.1230	494	720	962
ULS OSLO	313.80	60.30	374.10	22.40	8.76	867.00	109.00	976.00	156.10	173.80	0.0893	588	861	1154
ULS 25 MM	383.20	87.30	470.50	24.99	10.54	1059.00	157.00	1216.00	225.10	246.70	0.0730	665	981	1319
ULS LEIPZIG	406.40	71.30	477.70	25.15	9.53	1125.00	128.00	1253.00	183.30	206.20	0.0690	684	1010	1358
ULS STOCKHOLM 3L	453.70	60.30	514.00	26.39	8.76	1254.00	109.00	1363.00	156.10	181.60	0.0617	730	1081	1457
ULS STOCKHOLM 2L	463.30	60.30	523.60	26.39	8.76	1281.00	109.00	1390.00	156.10	182.20	0.0605	737	1092	1471
ULS WARSAW	507.50	60.30	567.80	27.71	8.76	1405.00	109.00	1514.00	156.10	184.70	0.0553	778	1156	1561
ULS DUBLIN	524.50	71.30	595.80	28.14	9.53	1452.00	128.00	1580.00	183.30	212.80	0.0534	794	1181	1596
ULS KOLKATA	543.50	71.30	614.80	28.63	9.53	1511.00	128.00	1639.00	183.30	213.90	0.0517	809	1206	1630
ULS MAHAKAM	544.90	87.30	632.20	29.01	10.54	1506.00	157.00	1663.00	225.10	255.70	0.0514	814	1214	1642
ULS HAMBURG	546.40	60.30	606.70	28.63	8.76	1513.00	109.00	1622.00	156.10	186.80	0.0514	811	1209	1634
ULS MILAN	567.70	60.30	628.00	29.11	8.76	1572.00	109.00	1681.00	156.10	188.00	0.0494	830	1238	1675
ULS ROME	592.50	71.30	663.80	29.90	9.53	1642.00	128.00	1770.00	183.30	216.60	0.0474	851	1273	1724
ULS VIENNA	629.20	60.30	689.50	30.43	8.76	1738.00	109.00	1847.00	156.10	191.50	0.0445	880	1318	1787
ULS BUDAPEST	668.30	71.30	739.60	31.50	9.53	1852.00	128.00	1980.00	183.30	220.90	0.0420	912	1369	1859
ULS MUMBA ¹	685.40	71.30	756.70	31.78	9.53	1903.00	128.00	2031.00	183.30	221.90	0.0410	924	1388	1886
ULS PRAGUE	690.70	60.30	751.00	31.78	8.76	1916.00	109.00	2025.00	156.10	195.00	0.0407	926	1393	1892
ULS DHAKA	723.90	71.30	795.20	32.87	9.53	2005.0	128.00	2133.00	183.30	224.00	0.0387	956	1441	1960
ULS MUNICH	733.20	71.30	804.50	32.84	9.53	2038.00	128.00	2166.00	183.30	224.50	0.0384	959	1446	1967
ULS WARWICK	749.50	87.30	836.80	33.40	10.54	2079.00	157.00	2236.00	225.10	267.30	0.0375	974	1470	2001
ULS LONDON	759.00	75.10	834.10	33.40	9.78	2105.00	135.00	2240.00	193.50	236.20	0.0370	980	1479	2013
ULS PARIS	813.70	60.30	874.00	34.16	8.76	2252.00	109.00	2361.00	156.10	201.90	0.0345	1016	1537	2096
ULS BORDEAUX	880.90	87.30	968.20	35.76	10.54	2438.00	157.00	2595.00	225.10	274.70	0.0318	1066	1619	2213
ULS ANTWERP	944.90	75.10	1020.00	36.86	9.78	2617.00	135.00	2752.00	193.50	246.70	0.0297	1106	1685	2306
ULS BERLIN	1006.50	87.30	1093.80	38.20	10.54	2785.00	157.00	2942.00	225.10	281.70	0.0278	1148	1755	2407
ULS MADRID	1013.10	75.10	1088.20	38.20	9.78	2805.00	135.00	2940.00	193.50	250.50	0.0276	1151	1760	2414
ULS ATHENS	1409.70	87.30	1497.00	44.75	10.54	3902.00	157.00	4059.00	225.10	304.40	0.0199	1364	2125	2949

NOTE:

Current capacity based on referenced conductor temperature, 0.56 m/s wind, 0 m Elevation, 0.45 Emissivity, 0.80 absorptivity, 45°C Ambient temperature, 1045 W/m² Solar radiation.

†ULS Conductors have a composite core that exhibits a higher tensile strength and modulus, used for long span crossing and heavy ice loads.

ACCC® Conductors are manufactured under license from CTC Global USA.



POWERLINE

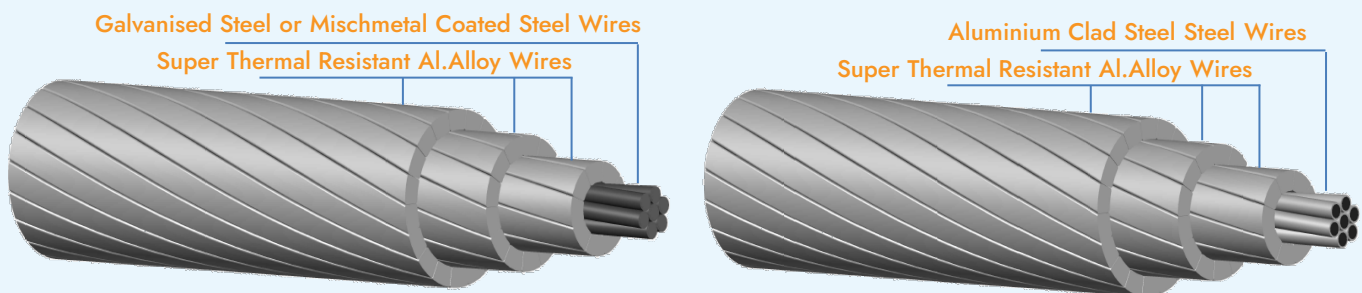
SUPER THERMAL

RESISTANT ALUMINIUM ALLOY CONDUCTOR STEEL REINFORCED (ZTACSR & ZTACSR/TW)

These are high ampacity conductors with inner core composed of Galvanized steel, Mischmetal Alloy Coated Steel or Aluminum clad Steel & outer layer composed of Super Thermal Resistant Aluminium alloy with round or trapezoidal shaped.

CONSTRUCTION:

Aluminum-Zirconium Alloy wires (Type-AT3), concentrically stranded over a steel core.



Values based on following Specifications:

- Thermal-resistant aluminium alloy wires (Type-AT3) for overhead line conductor as per IEC 62004
- Round wire concentric lay overhead electrical stranded conductors IEC 61089, IEC 62219 or ASTM B779
- Zinc-coated steel wires for stranded conductors IEC 888, ASTM B957 & more
- Zinc–5% Aluminum-Mischmetal Alloy-Coated Steel Core Wire EN 50540, ASTM B802, ASTM B803 or ASTM B958.
- Aluminium Clad Steel Wires, IEC 61232, ASTM B415, EN 50540 & More

FEATURES:

- These can operate up to 210°C with specified strength loss
- Can carry 100~150% more current as that of ACSR of the same size.
- For uprating lines, no modifications or reinforcement is required to the existing towers

* Current capacity based on referenced conductor temperature, 0.56 m/s wind, 0 m Elevation, 0.45 Emissivity, 0.80 absorptivity, 45°C Ambient temperature, 1045 W/m² Solar radiation.

SUPER THERMAL RESISTANT ALUMINIUM ALLOY CONDUCTOR STEEL REINFORCED - (ZTACSR)



CONDUCTOR SIZE	STRANDING				CROSS-SECTIONAL AREA			DIAMETER OF COMPLETE CONDUCTOR	WEIGHT			RATED STRENGTH				DC RESISTANCE @ 20°C	CURRENT CAPACITY		
	NO. OF WIRES		WIRE DIAMETER		STAL	STEEL	TOTAL		STAL	STEEL	TOTAL	REGULAR STRENGTH	HS	EHS	UHS		@ 85°C	@ 150°C	@ 210°C
	STAL	STEEL	STAL	STEEL															
(MM ²)	(NO.)	(NO.)	(MM)	(MM)	(MM ²)	(MM ²)	(MM ²)	(MM)	(KG/KM)	(KG/KM)	(KG/KM)	(KN)	(KN)	(KN)	(KN)	(Ω/KM)	Ampere	Ampere	Ampere
58	6	1	3.5	3.5	57.7	9.6	67.4	10.5	158.4	74.8	233.3	21.3	22.6	23.6	23.9	0.505	197	325	395
80	6	1	4.2	4.2	83.1	13.9	97.0	12.6	228.1	107.8	335.9	29.4	31.8	33.3	33.7	0.351	246	410	501
95	6	1	4.5	4.5	95.4	15.9	111.3	13.5	261.9	123.7	385.6	33.8	36.5	38.2	38.7	0.306	267	448	548
80	15	4	2.6	2.6	79.6	21.2	100.9	13.0	219.1	168.2	387.4	40.6	43.4	45.6	46.4	0.367	242	404	494
100	15	4	2.9	2.9	99.1	26.4	125.5	14.5	272.6	209.3	481.9	50.3	53.7	56.5	57.4	0.295	276	465	569
120	15	4	3.2	3.2	120.6	32.2	152.8	16.0	332.0	254.8	586.8	59.4	63.9	67.2	68.3	0.242	311	527	647
120	30	7	2.3	2.3	124.6	29.1	153.7	16.1	343.8	227.2	571.0	58.3	62.1	65.1	66.1	0.235	338	574	705
160	30	7	2.6	2.6	159.3	37.2	196.5	18.2	439.3	290.4	729.8	74.5	79.3	83.2	84.5	0.184	393	672	827
200	30	7	2.9	2.9	198.2	46.2	244.4	20.3	546.6	361.3	907.8	92.1	98.1	102.9	104.6	0.148	448	773	954
240	30	7	3.2	3.2	241.3	56.3	297.6	22.4	665.5	439.9	1105.4	108.9	116.8	122.4	124.4	0.122	504	877	1086
330	26	7	4.0	3.1	326.7	52.8	379.6	25.3	902.2	412.8	1315.0	117.5	124.9	130.1	132.0	0.090	601	1056	1311
410	26	7	4.5	3.5	413.5	67.4	480.9	28.5	1141.9	526.2	1668.1	149.3	158.7	165.4	167.8	0.071	691	1230	1531
480	45	7	3.7	2.5	483.9	33.5	517.4	29.6	1337.0	262.1	1599.1	124.7	129.1	132.6	133.8	0.061	742	1325	1651
520	54	7	3.5	3.5	519.5	67.4	586.9	31.5	1437.0	526.2	1963.3	167.7	177.1	183.8	186.2	0.057	778	1398	1745
560	54	19	3.6	2.2	558.9	70.9	629.8	32.7	1545.8	556.0	2101.8	183.4	193.4	200.5	202.6	0.053	812	1465	1831
610	54	7	3.8	3.8	612.4	79.4	691.8	34.2	1693.9	620.3	2314.3	192.1	205.6	214.3	216.7	0.048	857	1553	1944
630	54	19	3.9	2.3	628.7	79.6	708.3	34.7	1738.8	624.3	2363.1	201.9	212.2	220.6	223.4	0.047	870	1579	1977
680	54	7	4.0	4.0	678.6	88.0	766.6	36.0	1877.0	687.3	2564.2	210.8	225.8	235.4	238.1	0.043	909	1658	2079
680	45	7	4.4	2.9	684.2	46.2	730.5	35.1	1890.7	361.3	2252.0	168.0	174.0	178.8	180.5	0.043	907	1651	2069
710	54	19	4.1	2.5	709.5	89.6	799.0	36.8	1962.4	702.2	2664.6	227.5	239.1	248.5	251.6	0.041	933	1706	2140
800	54	19	4.3	2.6	798.9	101.7	900.5	39.1	2209.6	796.9	3006.5	257.1	270.3	281.0	284.6	0.037	999	1840	2313
810	45	7	4.8	3.2	814.3	56.3	870.6	38.4	2250.1	439.9	2690.0	193.6	201.5	207.1	209.1	0.036	1003	1845	2319
1120	72	19	4.5	1.8	1119.8	47.3	1167.1	44.5	3097.1	370.7	3467.7	240.0	246.6	251.3	252.8	0.026	1207	2267	2869
1160	84	7	4.2	4.2	1163.8	97.0	1260.8	46.2	3221.2	757.8	3978.9	298.5	315.0	325.7	328.6	0.025	1240	2340	2963
1250	84	19	4.4	2.6	1248.4	101.7	1350.0	47.9	3455.4	796.9	4252.3	328.6	341.8	352.5	356.1	0.024	1288	2442	3098
1520	84	7	4.8	4.8	1520.0	126.7	1646.7	52.8	4207.3	989.7	5197.0	379.2	391.9	414.7	418.5	0.019	1425	2749	3506

NOTE:

Current capacity based on referenced conductor temperature, 0.56 m/s wind, 0 m Elevation, 0.45 Emmisivity, 0.80 absorptivity, 45°C Ambient temperature, 1045 W/m² Solar radiation

Customized conductor sizes based on customer's requirement can also be designed.

SUPER THERMAL RESISTANT ALUMINIUM ALLOY CONDUCTOR STEEL REINFORCED - (ZTACSR/TW)



CONDUCTOR SIZE	STRANDING				CROSS-SECTIONAL AREA			DIAMETER OF COMPLETE CONDUCTOR	WEIGHT			RATED STRENGTH				DC RESISTANCE @ 20°C	CURRENT CAPACITY		
	NO. OF WIRES		WIRE DIAMETER		STAL	STEEL	TOTAL		STAL	STEEL	TOTAL	REGULAR STRENGTH	HS	EHS	UHS		@ 85°C	@ 150°C	@ 210°C
	STAL	STEEL	STAL	STEEL															
(MM ²)	(NO.)	(NO.)	(MM)	(MM)	(MM ²)	(MM ²)	(MM ²)	(MM)	(KG/KM)	(KG/KM)	(KG/KM)	(KN)	(KN)	(KN)	(KN)	(Ω/KM)	Ampere	Ampere	Ampere
170	170.5	9.5	179.9	14	2	1	3.5	15.6	470	74	544	39	40	41	41	0.17	393	665	817
205	205.3	11.7	217.0	14	2	1	3.9	17.1	566	91	657	46	48	50	50	0.14	440	750	922
240	241.7	39.2	280.9	18	2	7	2.7	19.8	666	306	973	89	94	98	99	0.12	492	848	1046
280	282.0	45.9	327.9	20	2	7	2.9	21.4	777	359	1136	104	110	114	116	0.10	540	936	1157
290	289.7	37.7	327.4	18	2	7	2.6	21.3	799	295	1094	92	97	101	103	0.10	547	948	1171
320	322.3	52.5	374.8	20	2	7	3.1	22.9	888	410	1299	114	121	127	129	0.09	585	1020	1262
340	336.9	54.9	391.8	20	2	7	3.2	23.4	929	429	1358	119	127	132	134	0.09	601	1049	1300
390	389.2	50.8	440.1	20	2	7	3.0	24.7	1073	397	1470	122	129	136	138	0.08	653	1146	1421
405	402.8	52.2	455.0	20	2	7	3.1	25.1	1111	408	1518	126	133	138	140	0.07	666	1171	1453
480	479.7	47.2	526.9	35	3	7	2.9	27.0	1329	369	1698	137	143	148	149	0.06	725	1283	1595
490	489.6	63.6	553.1	24	2	7	3.4	27.7	1350	497	1846	153	162	168	171	0.06	738	1309	1629
525	523.7	26.9	550.5	30	3	7	2.2	27.5	1451	210	1661	115	119	121	122	0.06	759	1347	1676
590	586.8	41.3	628.0	33	3	7	2.7	29.4	1626	323	1948	142	147	152	153	0.05	813	1452	1810
625	625.1	79.6	704.7	38	3	19	2.3	31.3	1732	624	2356	197	207	216	218	0.05	851	1528	1908
640	637.0	44.0	681.0	35	3	7	2.8	30.6	1765	344	2109	153	159	164	165	0.05	853	1530	1910
680	676.2	86.0	762.2	39	3	19	2.4	32.6	1874	674	2547	213	224	233	236	0.04	890	1606	2007
690	689.0	47.5	736.5	36	3	7	2.9	31.8	1909	371	2280	166	172	177	178	0.04	892	1607	2008
725	725.1	91.8	816.9	39	3	19	2.5	33.7	2009	720	2728	228	240	249	252	0.04	928	1680	2102
730	726.4	91.8	818.2	39	3	19	2.5	33.7	2013	720	2732	228	240	249	253	0.04	929	1682	2105
740	737.4	51.1	788.5	36	3	7	3.1	32.9	2043	400	2443	176	183	188	190	0.04	929	1680	2101
780	776.9	98.6	875.5	39	3	19	2.6	34.9	2153	773	2925	244	257	267	271	0.04	965	1755	2199
790	789.1	54.6	843.7	36	3	7	3.2	34.0	2186	426	2613	188	195	201	203	0.04	966	1753	2196
820	821.9	108.8	930.7	39	3	19	2.7	36.0	2277	853	3130	264	278	290	294	0.04	998	1821	2284
840	839.8	58.1	897.9	36	3	7	3.3	35.1	2327	454	2780	200	208	214	216	0.04	1000	1822	2285
880	876.9	111.2	988.1	42	3	19	2.7	37.1	2430	872	3301	276	290	302	306	0.03	1035	1895	2379
890	891.1	61.7	952.8	42	3	7	3.4	36.2	2469	482	2951	212	221	227	229	0.03	1034	1890	2373
900	901.9	73.5	975.5	42	3	19	2.2	36.7	2499	577	3075	233	244	251	253	0.03	1044	1911	2399
980	976.4	123.8	1100.1	42	3	19	2.9	39.1	2705	970	3675	307	323	336	340	0.03	1099	2027	2549
990	987.9	68.9	1056.8	42	3	7	3.5	38.1	2737	538	3275	231	242	252	255	0.03	1097	2018	2539
1090	1092.	88.8	1181.3	64	4	19	2.4	40.4	3041	697	3738	280	291	301	304	0.03	1174	2178	2745
1330	1331.3	108.8	1440.	64	4	19	2.7	44.6	3706	853	4559	342	356	367	371	0.02	1308	2461	3117

NOTE:

Current capacity based on referenced conductor temperature, 0.56 m/s wind, 0 m Elevation, 0.45 Emmisivity, 0.80 absorptivity, 45°C Ambient temperature, 1045 W/m² Solar radiation

Customized conductor sizes based on customer's requirement can also be designed.

SUPER THERMAL RESISTANT ALUMINIUM CONDUCTOR, ALUMINUM CLAD STEEL REINFORCED - (ZTACSR/AW/TW)



CONDUCTOR SIZE	STRANDING				CROSS-SECTIONAL AREA			DIAMETER OF COMPLETE CONDUCTOR	WEIGHT			RATED STRENGTH		DC RESISTANCE @ 20°C	CURRENT CAPACITY		
	NO. OF WIRES		WIRE DIAMETER		STAL	STEEL	TOTAL		STAL	STEEL	TOTAL	HIGH STRENGTH	EXTRA HIGH STRENGTH		@ 85°C	@ 150°C	@ 210°C
	STAL	STEEL	STAL	STEEL													
170	170.5	9.5	179.9	14	2	1	3.5	15.6	470.0	62.3	532.3	37.9	39.7	0.169	396.63	672	824
205	205.3	11.7	217.0	14	2	1	3.9	17.1	565.9	77.1	643.0	45.5	47.9	0.140	443.93	757	931
240	241.7	39.2	280.9	18	2	7	2.7	19.8	666.4	259.4	925.8	85.5	91.7	0.115	505.26	871	1074
280	282.0	45.9	327.9	20	2	7	2.9	21.4	777.4	303.9	1081.3	99.9	107.3	0.099	554.52	961.59 8	1188
290	289.7	37.7	327.4	18	2	7	2.6	21.3	798.7	249.8	1048.4	91.4	97.4	0.097	558.55	968	1197
320	322.3	52.5	374.8	20	2	7	3.1	22.9	888.5	347.4	1235.9	114.2	121.1	0.086	600.80	1048	1297
340	336.9	54.9	391.8	20	2	7	3.2	23.4	928.7	363.3	1292.1	117.1	124.2	0.082	616.90	1078	1335
390	389.2	50.8	440.1	20	2	7	3.0	24.7	1073.2	336.3	1409.4	120.1	128.3	0.072	666.66	1171	1452
405	402.8	52.2	455.0	20	2	7	3.1	25.1	1110.6	345.2	1455.8	123.8	130.6	0.070	680.27	1196	1485
480	479.7	47.2	526.9	35	3	7	2.9	27.0	1329.0	312.4	1641.4	132.9	140.5	0.059	736.44	1304	1621
490	489.6	63.6	553.1	24	2	7	3.4	27.7	1349.8	420.6	1770.4	149.4	158.9	0.057	753.78	1338	1664
525	523.7	26.9	550.5	30	3	7	2.2	27.5	1450.9	177.7	1628.6	111.8	116.9	0.055	765.10	1358	1690
590	586.8	41.3	628.0	33	3	7	2.7	29.4	1625.7	273.2	1898.8	138.7	145.3	0.049	822.53	1469	1832
625	625.1	79.6	704.7	38	3	19	2.3	31.3	1731.8	528.8	2260.6	190.6	203.3	0.045	868.13	1560	1948
640	637.0	44.0	681.0	35	3	7	2.8	30.6	1764.8	291.4	2056.2	149.7	156.7	0.045	862.55	1547	1931
680	676.2	86.0	762.2	39	3	19	2.4	32.6	1873.6	570.8	2444.4	205.9	219.7	0.042	908.92	1640	2051
690	689.0	47.5	736.5	36	3	7	2.9	31.8	1908.8	314.5	2223.3	161.8	169.4	0.042	902.60	1626	2032
725	725.1	91.8	816.9	39	3	19	2.5	33.7	2008.9	609.5	2618.4	220.4	235.0	0.039	946.33	1714	2145
730	726.4	91.8	818.2	39	3	19	2.5	33.7	2012.6	609.5	2622.0	220.6	235.2	0.039	947.27	1716	2148
740	737.4	51.1	788.5	36	3	7	3.1	32.9	2043.0	338.5	2381.5	173.5	180.1	0.039	938.89	1698	2124
780	776.9	98.6	875.5	39	3	19	2.6	34.9	2152.5	654.5	2807.0	236.4	252.1	0.036	984.91	1791	2244
790	789.1	54.6	843.7	36	3	7	3.2	34.0	2186.4	361.0	2547.4	185.4	192.5	0.036	976.08	1772	2220
820	821.9	108.8	930.7	39	3	19	2.7	36.0	2277.1	722.4	2999.5	255.5	272.9	0.034	1018.9	1860	2333
840	839.8	58.1	897.9	36	3	7	3.3	35.1	2326.7	384.3	2711.1	197.3	204.9	0.034	1011.42	1843	2311
880	876.9	111.2	988.1	42	3	19	2.7	37.1	2429.5	738.6	3168.1	266.8	284.5	0.032	1055.8	1934	2429
890	891.1	61.7	952.8	42	3	7	3.4	36.2	2468.8	408.3	2877.2	208.3	217.5	0.032	1045.9	1913	2402
900	901.9	73.5	975.5	42	3	19	2.2	36.7	2498.9	488.4	2987.2	225.4	239.3	0.032	1057.6	1937	2433
980	976.4	123.8	1100.1	42	3	19	2.9	39.1	2705.1	822.0	3527.0	296.9	316.7	0.029	1121.93	2069	2603
990	987.9	68.9	1056.8	42	3	7	3.5	38.1	2737.0	456.0	3192.9	228.7	241.8	0.029	1108.2	2040	2567
1090	1092.4	88.8	1181.3	64	4	19	2.4	40.4	3041.5	590.0	3631.5	272.7	286.9	0.026	1189.2	2206	2782
1330	1331.3	108.8	1440.0	64	4	19	2.7	44.6	3706.3	720.0	4426.3	332.9	350.3	0.022	1322.6	2490	3154

NOTE:

Current capacity based on referenced conductor temperature, 0.56 m/s wind, 0 m Elevation, 0.45 Emmisivity, 0.80 absorptivity, 45°C Ambient temperature, 1045 W/m² Solar radiation

Customized conductor sizes based on customer's requirement can also be designed.



POWERLINE

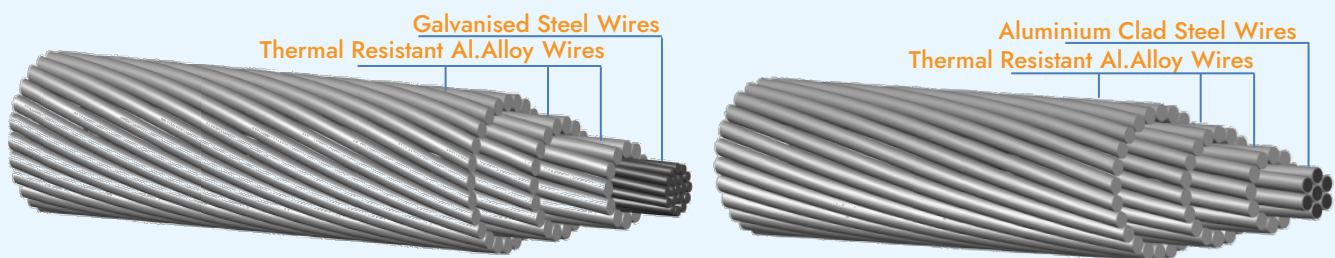
THERMAL RESISTANT

ALUMINIUM CONDUCTOR STEEL REINFORCED (TACSR & TACSR/AW)

These are high ampacity conductors with inner core composed of Galvanized steel or Aluminum clad Steel & outer layer composed of thermal resistant aluminium alloy with round or trapezoidal shaped.

CONSTRUCTION:

Aluminium-Zirconium wires (Type-AT1), concentrically stranded over a steel core.



Values based on following Specifications:

- Thermal-resistant aluminium alloy wires (Type-AT1) for overhead line conductor as per IEC 62004
- Round wire concentric lay overhead electrical stranded conductors IEC 61089
- Zinc-coated steel wires for stranded conductors IEC 888, ASTM B957 & more
- Aluminium Clad Steel Wires, IEC 61232, ASTM B415, EN 50540 & More

FEATURES:

- These can operate upto 150°C with specified strength loss,
- Can carry 50 % to 60 % more current as that of ACSR of the same size.
- For uprating lines, no modifications or reinforcement is required to the existing towers

* Current capacity based on referenced conductor temperature, 0.56 m/s wind, 0 m Elevation, 0.45 Emissivity, 0.80 absorptivity, 45°C Ambient temperature, 1045 W/m² Solar radiation.

THERMAL RESISTANT ALUMINIUM CONDUCTOR STEEL REINFORCED - (TACSR)



CONDUCTOR SIZE	STRANDING				CROSS-SECTIONAL AREA			DIAMETER OF COMPLETE CONDUCTOR	WEIGHT			RATED STRENGTH			DC RESISTANCE @ 20°C	CURRENT CAPACITY		
	NO. OF WIRES		WIRE DIAMETER		TAL	STEEL	TOTAL		TAL	STEEL	TOTAL	REGULAR STRENGTH	HS	EHS		UHS	@ 85°C	@ 150°C
	(NO.)	(NO.)	(MM)	(MM)														
(MM ²)	(NO.)	(NO.)	(MM)	(MM)	(MM ²)	(MM ²)	(MM ²)	(MM)	(KG/KM)	(KG/KM)	(KG/KM)	(KN)	(KN)	(KN)	(KN)	(Ω/KM)	Ampere	Ampere
58	6	1	3.50	3.50	57.73	9.62	67.35	10.50	158.4	74.8	233.3	21.3	22.6	23.6	23.9	0.5053	197	325
80	6	1	4.20	4.20	83.13	13.85	96.98	12.60	228.1	107.8	335.9	29.4	31.8	33.3	33.7	0.3509	246	410
95	6	1	4.50	4.50	95.43	15.90	111.33	13.50	261.9	123.7	385.6	33.8	36.5	38.2	38.7	0.3057	267	448
80	15	4	2.60	2.60	79.64	21.24	100.88	13.00	219.1	168.2	387.4	40.6	43.4	45.6	46.4	0.3673	242	404
100	15	4	2.90	2.90	99.08	26.42	125.50	14.50	272.6	209.3	481.9	50.3	53.7	56.5	57.4	0.2952	276	465
120	15	4	3.20	3.20	120.64	32.17	152.81	16.00	332.0	254.8	586.8	59.4	63.9	67.2	68.3	0.2425	311	527
120	30	7	2.30	2.30	124.64	29.08	153.72	16.10	343.8	227.2	571.0	58.3	62.1	65.1	66.1	0.2352	338	574
160	30	7	2.60	2.60	159.28	37.17	196.45	18.20	439.3	290.4	729.8	74.5	79.3	83.2	84.5	0.1841	393	672
200	30	7	2.90	2.90	198.16	46.24	244.4	20.30	546.6	361.3	907.8	92.1	98.1	102.9	104.6	0.1480	448	773
240	30	7	3.20	3.20	241.27	56.30	297.57	22.40	665.5	439.9	1105.4	108.9	116.8	122.4	124.4	0.1215	504	877
330	26	7	4.00	3.10	326.73	52.83	379.56	25.30	902.2	412.8	1315.0	117.5	124.9	130.1	132.0	0.0898	601	1056
410	26	7	4.50	3.50	413.51	67.35	480.86	28.50	1141.9	526.2	1668.1	149.3	158.7	165.4	167.8	0.0710	691	1230
480	45	7	3.70	2.47	483.85	33.54	517.39	29.61	1337.0	262.1	1599.1	124.7	129.1	132.6	133.8	0.0607	742	1325
520	54	7	3.50	3.50	519.54	67.35	586.89	31.50	1437.0	526.2	1963.3	167.7	177.1	183.8	186.2	0.0566	778	1398
560	54	19	3.63	2.18	558.85	70.92	629.77	32.68	1545.8	556.0	2101.8	183.4	193.4	200.5	202.6	0.0526	812	1465
610	54	7	3.80	3.80	612.42	79.39	691.81	34.20	1693.9	620.3	2314.3	192.1	205.6	214.3	216.7	0.048	857	1553
630	54	19	3.85	2.31	628.65	79.63	708.28	34.65	1738.8	624.3	2363.1	201.9	212.2	220.6	223.4	0.0468	870	1579
680	54	7	4.00	4.00	678.59	87.96	766.55	36.00	1877.0	687.3	2564.2	210.8	225.8	235.4	238.1	0.0433	909	1658
680	45	7	4.40	2.90	684.24	46.24	730.48	35.10	1890.7	361.3	2252.0	168.0	174.0	178.8	180.5	0.043	907	1651
710	54	19	4.09	2.45	709.47	89.57	799.04	36.79	1962.4	702.2	2664.6	227.5	239.1	248.5	251.6	0.0414	933	1706
800	54	19	4.34	2.61	798.85	101.65	900.5	39.09	2209.6	796.9	3006.5	257.1	270.3	281.0	284.6	0.0368	999	1840
810	45	7	4.80	3.20	814.30	56.30	870.60	38.40	2250.1	439.9	2690.0	193.6	201.5	207.1	209.1	0.0361	1003	1845
1120	72	19	4.45	1.78	1119.81	47.28	1167.1	44.50	3097.1	370.7	3467.7	240.0	246.6	251.3	252.8	0.0263	510	951
1160	84	7	4.20	4.20	1163.7	96.98	1260.7	46.20	3221.2	757.8	3978.9	298.5	315.0	325.7	328.6	0.0253	855	1602
1250	84	19	4.35	2.61	1248.4	101.65	1350.0	47.85	3455.4	796.9	4252.3	328.6	341.8	352.5	356.1	0.0236	860	1619
1520	84	7	4.80	4.80	1520.0	126.67	1646.7	52.80	4207.3	989.7	5197.0	379.2	391.9	414.7	418.5	0.0194	875	1668

NOTE:

Current capacity based on referenced conductor temperature, 0.56 m/s wind, 0 m Elevation, 0.45 Emmisivity, 0.80 absorptivity, 45°C Ambient temperature, 1045 W/m² Solar radiation

THERMAL RESISTANT ALUMINIUM CONDUCTOR, ALUMINUM CLAD STEEL REINFORCED - (TACSR/AW)



CONDUCTOR SIZE	STRANDING				CROSS-SECTIONAL AREA			DIAMETER OF COMPLETE CONDUCTOR	WEIGHT			RATED STRENGTH		DC RESISTANCE @ 20°C	CURRENT CAPACITY	
	NO. OF WIRES		WIRE DIAMETER		TAL	STEEL	TOTAL		TAL	STEEL	TOTAL	HIGH STRENGTH	EXTRA HIGH STRENGTH		@ 85°C	@ 150°C
	TAL	STEEL	TAL	STEEL												
(MM ²)	(NO.)	(NO.)	(MM)	(MM)	(MM ²)	(MM ²)	(MM ²)	(MM)	(KG/KM)	(KG/KM)	(KG/KM)	(KN)	(KN)	(Ω/KM)	Ampere	Ampere
58	6	1	3.50	3.50	57.73	9.62	67.35	10.50	158.42	63.39	221.81	20.32	22.15	0.4956	199	328
80	6	1	4.20	4.20	83.13	13.85	96.98	12.60	228.12	91.27	319.39	28.04	31.22	0.3442	248	414
95	6	1	4.50	4.50	95.43	15.90	111.33	13.50	261.87	104.78	366.65	31.55	35.84	0.2998	270	452
80	15	4	2.60	2.60	79.64	21.24	100.88	13.00	219.14	142.49	361.63	38.95	42.35	0.3369	252	422
100	15	4	2.90	2.90	99.08	26.42	125.50	14.50	272.63	177.24	449.87	48.15	52.38	0.2708	288	485
120	15	4	3.20	3.20	120.64	32.17	152.81	16.00	331.96	215.82	547.78	58.15	62.33	0.2229	324	550
120	30	7	2.30	2.30	124.64	29.08	153.72	16.10	343.77	192.47	536.24	55.96	60.61	0.2180	352	596
160	30	7	2.60	2.60	159.28	37.17	196.45	18.20	439.32	246.01	685.33	71.52	77.47	0.1706	408	698
200	30	7	2.90	2.90	198.16	46.24	244.40	20.30	546.55	306.03	852.58	88.38	95.78	0.1371	465	803
240	30	7	3.20	3.20	241.27	56.30	297.57	22.40	665.46	372.61	1038.07	106.65	113.96	0.1126	524	912
330	26	7	4.00	3.10	326.73	52.83	379.56	25.30	902.23	349.64	1251.87	115.35	122.21	0.0852	617	1085
410	26	7	4.50	3.50	413.51	67.35	480.86	28.50	1141.86	445.75	1587.61	142.53	155.32	0.0673	710	1263
480	45	7	3.70	2.47	483.85	33.54	517.39	29.61	1337.01	221.98	1558.99	118.63	124.00	0.0593	750	1340
520	54	7	3.50	3.50	519.54	67.35	586.89	31.50	1437.04	445.75	1882.79	160.94	173.74	0.0542	795	1428
560	54	19	3.63	2.18	558.85	70.92	629.77	32.68	1545.77	470.96	2016.73	175.64	189.11	0.0504	829	1496
610	54	7	3.80	3.80	612.42	79.39	691.81	34.20	1693.94	525.43	2219.37	186.54	202.42	0.0460	875	1586
630	54	19	3.85	2.31	628.65	79.63	708.28	34.65	1738.83	528.80	2267.6	195.51	208.25	0.0448	888	1613
680	54	7	4.00	4.00	678.59	87.96	766.55	36.00	1876.97	582.15	2459.1	204.65	222.24	0.0415	929	1694
680	45	7	4.40	2.90	684.24	46.24	730.48	35.10	1890.74	306.03	2196.77	164.28	171.68	0.0420	917	1669
710	54	19	4.09	2.45	709.47	89.57	799.04	36.79	1962.38	594.81	2557.19	220.29	234.62	0.0397	953	1742
800	54	19	4.34	2.61	798.85	101.65	900.50	39.09	2209.6	675.03	2884.6	249.00	265.26	0.0353	1020	1878
810	45	7	4.80	3.20	814.30	56.30	870.60	38.40	2250.1	372.61	2622.7	191.33	198.65	0.0352	1015	1867
1120	72	19	4.45	1.78	1119.81	47.28	1167.09	44.50	3097.0	313.97	3411.04	234.79	243.77	0.0259	1214	2281
1160	84	7	4.20	4.20	1163.77	96.98	1260.75	46.20	3221.17	641.85	3863.0	288.81	311.11	0.0246	1256	2369
1250	84	19	4.35	2.61	1248.39	101.65	1350.0	47.85	3455.4	675.03	4130.41	320.47	336.74	0.0229	1304	2475
1520	84	7	4.80	4.80	1520.0	126.67	1646.70	52.80	4207.2	838.34	5045.6	357.71	395.72	0.0188	1442	2785

NOTE:

Current capacity based on referenced conductor temperature, 0.56 m/s wind, 0 m Elevation, 0.45 Emmisivity, 0.80 absorptivity, 45°C Ambient temperature, 1045 W/m² Solar radiation



POWERLINE

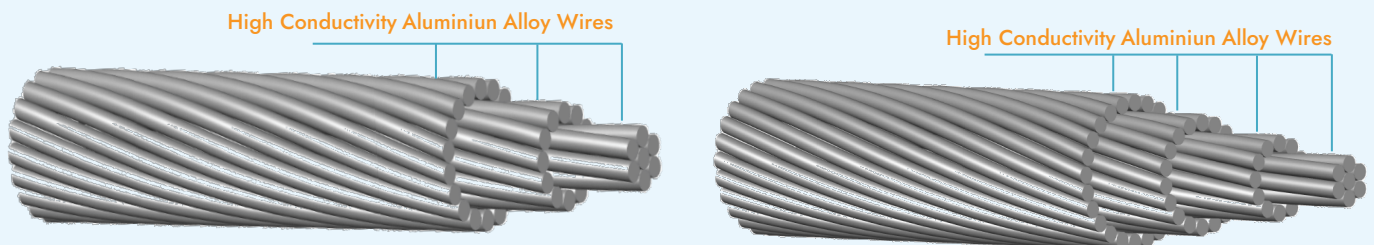
HIGH CONDUCTIVITY

ALLOY CONDUCTOR (AL5, AL6, AL7, AL57, AL59, AL60, AAAC 1120, ETC)

These are low resistance High Conductivity alloy conductors with excellent electrical characteristics, excellent sag-tension characteristics and superior corrosion resistance to that of ACSR. As compared to ACSR they have lighter weight, comparable strength and current carrying capacity, lower electrical losses and superior corrosion resistance have given this conductor wide acceptance as a transmission conductor. It has found limited use, however, as a distribution conductor.

CONSTRUCTION:

Aluminium Alloy wires, concentrically stranded.



Values based on following Specifications:

- Swedish Specification SS 424 08 14, SS 424 08 12, EN 50182, AS 1531 & More.

FEATURES:

- Better Conductivity, so better power transmission.
- Lower Operating costs due to lower ohmic losses.
- Can be recycled easily.

* Current capacity based on referenced conductor temperature, 0.56 m/s wind, 0 m Elevation, 0.45 Emissivity, 0.80 absorptivity, 45°C Ambient temperature, 1045 W/m² Solar radiation.

ALUMINUM ALLOY CONDUCTORS (TYPE- AL5) EN 50182



CODE	OLD CODE	SECTIONAL AREA	STRANDING		DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
			ALUMINIUM STEEL	ALUMINIUM STEEL					@ 75°C	@ 85°C
		(MM ²)	(NO.)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
239-AL5	POPLAR	239.4	37	2.87	20.10	659.4	70.61	0.1330	384	477
303-AL5	SYCAMORE	303.2	37	3.23	22.60	835.2	89.44	0.1050	439	549
362-AL5	UPAS	362.1	37	3.53	24.70	997.5	106.82	0.0879	485	610
479-AL5	YEW	479.0	37	4.06	28.40	1319.6	141.31	0.0665	566	720
498-AL5	TOTARA	498.1	37	4.14	29.00	1372.1	146.93	0.0639	579	737
587-AL5	RUBUS	586.9	61	3.50	31.50	1622.0	173.13	0.0544	632	810
659-AL5	SORBUS	659.4	61	3.71	33.40	1822.5	194.53	0.0484	673	867
821-AL5	ARAUCARIA	821.1	61	4.14	37.30	2269.4	242.24	0.0389	754	982
996-AL5	REDWOOD	996.2	61	4.56	41.00	2753.2	293.88	0.0321	831	1092

ALUMINUM ALLOY CONDUCTORS (TYPE- AL6) EN 50182



CODE	OLD CODE	SECTIONAL AREA	STRANDING		DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
			NO. OF ALUMINIUM WIRES	INDIVIDUAL WIRE DIAMETER					@ 75°C	@ 85°C
		(MM ²)	(NO.)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
46-AL6	AL56 - 46	46.2	7	2.90	8.70	126.2	14.52	0.6779	147	177
65-AL6	AL56 - 65	65.1	7	3.44	10.30	177.6	20.43	0.4818	180	217
93-AL6	AL56 - 93	92.9	7	4.11	12.30	253.5	28.23	0.3375	222	270
130-AL6	AL56 - 130	129.9	7	4.86	14.60	354.5	39.48	0.2414	271	331
167-AL6	AL56 - 167	167.5	19	3.35	16.80	459.8	52.59	0.1882	314	386
178-AL6	AL56 - 178	177.6	19	3.45	17.30	487.6	55.77	0.1775	325	400
210-AL6	AL56 - 210	209.8	19	3.75	18.80	576.1	63.79	0.1502	357	442
225-AL6	AL56 - 225	224.7	19	3.88	19.40	616.7	68.29	0.1403	371	461
263-AL6	AL56 - 263	263.2	19	4.20	21.00	722.7	80.02	0.1197	407	507
280-AL6	AL56 - 280	279.8	19	4.33	21.70	768.1	85.05	0.1127	421	526
322-AL6	AL56 - 322	322.2	37	3.33	23.30	887.7	101.18	0.0982	456	571
342-AL6	AL56 - 342	341.9	37	3.43	24.00	941.8	107.35	0.0925	471	592
444 -AL6	AL56 - 444	444.3	37	3.91	27.40	1223.9	135.06	0.0712	545	691
454-AL6	AL56 - 454	454.5	61	3.08	27.70	1256.1	142.71	0.0698	551	700
594-AL6	AL56 - 594	593.6	61	3.52	31.70	1640.6	180.46	0.0535	638	818
685-AL6	AL56 - 685	684.5	61	3.78	34.00	1891.9	208.1	0.0464	688	887
865-AL6	AL56 - 865	865.4	61	4.25	38.30	2391.6	263.07	0.0367	777	1014

ALUMINUM ALLOY CONDUCTORS (TYPE- AL7) EN 50182



CODE	OLD CODE	SECTIONAL AREA	STRANDING		DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
			NO. OF ALUMINIUM WIRES	INDIVIDUAL WIRE DIAMETER					@ 75°C	@ 85°C
		(MM ²)	(NO.)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
46-AL7	AL58 - 46	46.2	7	2.90	8.70	126.2	13.41	0.6560	150	179
65-AL7	AL58 - 65	65.1	7	3.44	10.30	177.6	17.89	0.4662	183	221
93-AL7	AL58 - 93	92.9	7	4.11	12.30	253.5	23.68	0.3266	226	274
130-AL7	AL58 - 130	129.9	7	4.86	14.60	354.5	33.11	0.2336	275	336
167-AL7	AL58 - 167	167.5	19	3.35	16.80	459.8	46.05	0.1821	319	393
178-AL7	AL58 - 178	177.6	19	3.45	17.30	487.6	48.84	0.1717	330	407
210-AL7	AL58 - 210	209.8	19	3.75	18.80	576.1	55.61	0.1454	363	450
225-AL7	AL58 - 225	224.7	19	3.88	19.40	616.7	59.53	0.1358	378	468
263-AL7	AL58 - 263	263.2	19	4.20	21.00	722.7	67.12	0.1159	413	515
280-AL7	AL58 - 280	279.8	19	4.33	21.70	768.1	71.34	0.1090	428	534
322-AL7	AL58 - 322	322.2	37	3.33	23.30	887.7	88.62	0.0950	463	580
342-AL7	AL58 - 342	341.9	37	3.43	24.00	941.8	94.02	0.0895	479	601
444-AL7	AL58 - 444	444.3	37	3.91	27.40	1223.9	117.73	0.0689	554	703
484-AL7	AL58 - 454	454.5	61	3.08	27.70	1256.1	124.98	0.0676	560	711
594-AL7	AL58 - 594	593.6	61	3.52	31.70	1640.6	157.31	0.0517	648	831
685-AL7	AL58 - 685	684.5	61	3.78	34.00	1891.9	181.4	0.0449	699	901
865-AL7	AL58 - 865	865.4	61	4.25	38.30	2391.6	220.67	0.0355	789	1029
62-AL7	AlMgSi - 62	62.4	7	3.37	10.10	170.5	17.17	0.4858	179	215
99-AL7	AlMgSi - 99	99.3	7	4.25	12.80	271.1	25.32	0.3055	235	286
159-AL7	AlMgSi - 157	158.6	19	3.26	16.30	435.4	43.61	0.1923	309	380
241-AL7	AlMgSi - 241	241.2	19	4.02	20.10	662.1	61.49	0.1265	393	489
330-AL7	AlMgSi - 329	330.0	37	3.37	23.60	909.2	90.76	0.0927	470	589
454-AL7	AlMgSi - 454	454.5	61	3.08	27.70	1256.1	124.98	0.0676	560	711
594-AL7	AlMgSi - 593	593.6	61	3.52	31.70	1640.6	157.31	0.0517	648	831
774-AL7	AlMgSi - 774	774.2	61	4.02	36.20	2139.8	197.43	0.0397	745	967
911-AL7	AlMgSi - 910	910.7	61	4.36	39.20	2517.0	232.24	0.0337	810	1059

ALUMINUM ALLOY CONDUCTORS (TYPE- AL57) SS 424 08 12



NOMINAL AREA	SECTIONAL AREA	EQUIVALENT COPPER AREA	STRANDING		DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
			NO. OF ALUMINIUM WIRES	INDIVIDUAL WIRE DIAMETER					@ 75°C	@ 85°C
(MM ²)	(MM ²)	(MM ²)	(NO.)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
31	31.14	17.90	7	2.38	7.14	85.0	9.31	0.9740	118	140
62	62.44	35.88	7	3.37	10.11	170.0	17.20	0.4860	178	214
99	99.3	57.07	7	4.25	12.75	271.0	25.30	0.3050	234	285
157	158.59	91.14	19	3.26	16.30	436.0	43.70	0.1930	307	377
241	241.16	138.59	19	4.02	20.10	663.0	61.60	0.1270	391	485
329	330.03	189.67	37	3.37	23.60	910.0	90.70	0.0928	467	586
454	454.49	261.20	61	3.08	27.72	1260.0	125.16	0.0675	558	708
593	593.62	341.15	61	3.52	31.68	1640.0	157.00	0.0517	645	827
774	774.24	444.96	61	4.02	36.18	2140.0	197.00	0.0396	743	963
910	910.74	523.40	61	4.36	39.20	2520.0	232.00	0.0337	806	1054

ALUMINUM ALLOY CONDUCTORS (TYPE- AL59) SS 424 08 14

NOMINAL AREA	SECTIONAL AREA	EQUIVALENT COPPER AREA	STRANDING		DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
			NO. OF ALUMINIUM WIRES	INDIVIDUAL WIRE DIAMETER					@ 75°C	@ 85°C
(MM ²)	(MM ²)	(MM ²)	(NO.)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
31	31.14	18.48	7	2.38	7.14	85.0	7.77	0.9430	120	142
62	62.44	37.06	7	3.37	10.11	170.0	15.60	0.4700	181	218
99	99.30	58.93	7	4.25	12.75	271.0	22.80	0.2960	238	289
157	158.59	94.12	19	3.26	16.30	436.0	39.70	0.1860	313	384
241	241.16	143.13	19	4.02	20.10	663.0	55.50	0.1230	397	493
329	330.03	195.87	37	3.37	23.60	910.0	82.50	0.0899	475	595
454	454.49	269.74	61	3.08	27.72	1260.0	113.00	0.0654	567	719
593	593.62	352.31	61	3.52	31.68	1640.0	143.00	0.0501	655	840
774	774.24	459.51	61	4.02	36.18	2140.0	178.00	0.0384	754	977
910	910.74	540.52	61	4.36	39.20	2520.0	209.00	0.0326	819	1070

ALUMINUM ALLOY CONDUCTORS (TYPE- AL60)



NOMINAL AREA	SECTIONAL AREA	EQUIVALENT COPPER AREA	STRANDING		DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
			NO. OF ALUMINIUM WIRES	INDIVIDUAL WIRE DIAMETER					@ 75°C	@ 85°C
(MM ²)	(MM ²)	(MM ²)	(NO.)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
31	31.14	18.48	7	2.38	7.14	85.0	7.77	0.9346	120	143
62	62.44	37.06	7	3.37	10.11	170.0	15.60	0.4662	182	219
99	99.30	58.93	7	4.25	12.75	271.0	22.80	0.2931	239	290
157	158.59	94.12	19	3.26	16.30	436.0	39.70	0.1844	314	386
241	241.16	143.13	19	4.02	20.10	663.0	55.50	0.1213	400	496
329	330.03	195.87	37	3.37	23.60	910.0	82.50	0.0888	477	599
454	454.49	269.74	61	3.08	27.72	1260.0	113.00	0.0646	570	723
593	593.62	352.31	61	3.52	31.68	1640.0	143.00	0.0495	659	845
774	774.24	459.51	61	4.02	36.18	2140.0	178.00	0.0379	758	983
910	910.74	540.52	61	4.36	39.20	2520.0	209.00	0.0323	822	1075

ALUMINUM ALLOY CONDUCTORS (TYPE- AAAC 1120) AS 1531



CODE NAME	SECTIONAL AREA	EQUIVALENT COPPER AREA	STRANDING		DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
			NO. OF ALUMINIUM WIRES	INDIVIDUAL WIRE DIAMETER					@ 75°C	@ 85°C
Chlorine	(MM ²)	(MM ²)	(NO.)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
Chlorine	34.36	32.80	7	2.50	7.50	94.3	8.18	0.8640	126	150
Chromium	41.58	39.70	7	2.75	8.25	113.0	9.91	0.7130	141	169
Fluorine	49.48	47.20	7	3.00	9.00	135.0	11.80	0.5990	156	188
Helium	77.28	73.70	7	3.75	11.30	211.0	17.60	0.3830	204	247
Hydrogen	111.30	106.00	7	4.50	13.50	304.0	24.30	0.2660	253	308
Iodine	124.00	118.00	7	4.75	14.30	339.0	27.10	0.2390	269	329
Krypton	157.60	150.00	19	3.25	16.30	433.0	37.40	0.1890	309	380
Lutetium	182.80	173.00	19	3.50	17.50	503.0	41.70	0.1630	337	415
Neon	209.80	199.00	19	3.75	18.80	576.0	47.80	0.1420	365	451
Nitrogen	261.60	248.00	37	3.00	21.00	721.0	62.20	0.1140	414	515
Nobelium	307.00	291.00	37	3.25	22.80	845.0	72.80	0.0973	453	567
Oxygen	336.70	320.00	19	4.75	23.80	924.0	73.60	0.0884	478	599
Phosphorus	408.50	387.00	37	3.75	26.30	1 120	93.10	0.0731	532	672
Selenium	506.10	478.00	61	3.25	29.30	1 400	114.00	0.0592	598	761
Silicon	586.90	555.00	61	3.50	31.50	1 620	127.00	0.0511	647	829
Sulfur	673.40	636.00	61	3.75	33.80	1 860	145.00	0.0444	697	898

NOTE:

Current capacity based on referenced conductor temperature, 0.56 m/s wind, 0 m Elevation, 0.45 Emissivity, 0.80 absorptivity, 45°C Ambient temperature, 1045 W/m² Solar radiation.



POWERLINE

ALUMINIUM

CONDUCTOR STEEL SUPPORTED - (ACSS)

ACSS is a composite concentric-lay stranded conductor. Steel strands form the central core of the conductor with one or more layers of aluminium 1350-O wire stranded around it. The steel core carries most or all of the mechanical load of the conductor due to the "O" (fully annealed or soft) temper Aluminium. Steel core wires are protected from corrosion by galvanizing, Aluminum Cladding or mischmetal alloy coating. Corrosion protection should be selected to suit the environment to which the conductor will be exposed.

APPLICATIONS:

ACSS is used for overhead distribution and transmission lines. It is designed to operate continuously at elevated temperatures up to 250°C without loss of strength; it sags less under emergency electrical loadings than ACSR; it is self-damping if pre stretched during installation; and its final sags are not affected by long term creep of Aluminium. The advantages make ACSS especially useful in reconductoring applications requiring increased current with existing tensions and clearances, new line applications where structures can be economized because of reduced conductor sag, new line applications requiring high emergency loadings, and lines where aeolian vibration is a problem.

Values based on following Specifications:

- Swedish Specification SS 424 08 14, SS 424 08 12, EN 50182, AS 1531 & More.

* Current capacity based on referenced conductor temperature, 0.56 m/s wind, 0 m Elevation, 0.45 Emissivity, 0.80 absorptivity, 45°C Ambient temperature, 1045 W/m² Solar radiation.



POWERLINE

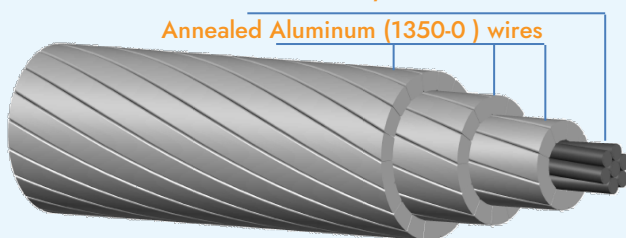
ALUMINIUM

CONDUCTOR STEEL SUPPORTED - (ACSS)

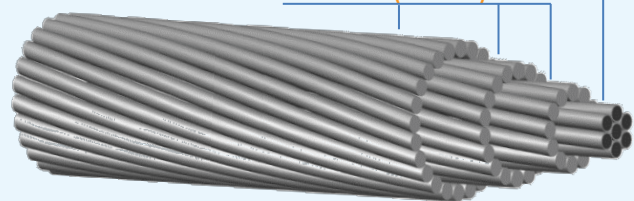
Values based on following Specifications:

- B500 Metallic Coated Stranded Steel Core For Aluminium Conductors, Steel Reinforced.
- B802 Zinc-5% Aluminum-Mischmetal Alloy-Coated Steel Core Wire for Aluminum Conductors, Steel Reinforced
- B803 High-Strength Zinc-5% Aluminum-Mischmetal Alloy-Coated Steel Core Wire for Aluminum and Aluminum-Alloy Conductors, Steel Reinforced
- B958 Extra-High-Strength and Ultra-High-Strength Class A Zinc-5% Aluminum-Mischmetal Alloy-Coated Steel Core Wire
- B498 Zinc-Coated (Galvanized) Steel Core Wire for Aluminum Conductors, Steel Reinforced
- B606 High-Strength Zinc-Coated (Galvanized) Steel Core Wire for Aluminum and Aluminum-Alloy Conductors, Steel Reinforced
- B957 Extra-High-Strength and Ultra-High-Strength Zinc-Coated (Galvanized) Steel Core Wire for Overhead Electrical Conductors
- B502 Aluminum-Clad Steel Core Wire for Aluminum Conductors, Aluminum-Clad Steel Reinforced
- B609 Aluminum 1350 Round Wire, Annealed and Intermediate Tempers, for Electrical Purposes.
- B856 Concentric-Lay-Stranded Aluminium Conductors, Coated Steel Supported (ACSS).
- B857 Shaped Wire Compact Concentric-Lay-Stranded Aluminum Conductors, Coated-Steel Supported (ACSS/TW)

Galvanized / Mischmetal Alloy Coated Steel Wires



Aluminum Clad Steel Wire
Annealed Aluminum (1350-O) wires



* Current capacity based on referenced conductor temperature, 0.56 m/s wind, 0 m Elevation, 0.45 Emissivity, 0.80 absorptivity, 45°C Ambient temperature, 1045 W/m² Solar radiation.

Aluminium Conductor Steel Supported – (ACSS)



CODE WORD	SIZE	STRANDING				DIAMETER OF COMPLETE CONDUCTOR	WEIGHT			RATED STRENGTH				DC RESISTANCE @ 20°C	CURRENT CAPACITY		
		NO. OF WIRES		WIRE DIAMETER			ALLUMINIUM	STEEL	TOTAL	REGULAR STRENGTH	HIGH STRENGTH	EXTRA HIGH STRENGTH	ULTRA HIGH STRENGTH		@ 85°C	@ 150°C	@ 210°C
		ALLUMINIUM	STEEL	ALLUMINIUM	STEEL												
Partridge/ACSS	(MM ²)	(NO.)	(NO.)	(MM)	(MM)	(MM)	(KG/KM)	(KG/KM)	(KG/KM)	(KN)	(KN)	(KN)	(KN)	(Ω/KM)	Ampere	Ampere	Ampere
Partridge/ACSS	135	26	7	2.57	2.00	16.31	374.0	171.8	545.8	39.7	43.4	47.9	51.0	0.2031	365	740	836
Junco/ACSS	135	30	7	2.40	2.40	16.76	374.9	247.4	622.3	52.5	58.2	64.5	68.0	0.2018	368	748	846
Junco/ACSS	135	30	7	2.40	2.40	16.76	374.9	247.4	622.3	52.5	58.2	64.5	68.0	0.2018	368	748	846
Ostrich/ACSS	152	26	7	2.73	2.12	17.27	420.6	193.0	613.6	44.6	48.8	53.9	57.3	0.1808	391	798	903
Ostrich/ACSS	152	26	7	2.73	2.12	17.27	420.6	193.0	613.6	44.6	48.8	53.9	57.3	0.1808	391	798	903
Linnet/ACSS	170	26	7	2.89	2.25	18.29	471.4	217.4	688.8	50.2	54.9	60.6	64.5	0.1611	420	860	974
Linnet/ACSS	170	26	7	2.89	2.25	18.29	471.4	217.4	688.8	50.2	54.9	60.6	64.5	0.1611	420	860	974
Oriole/ACSS	170	30	7	2.69	2.69	18.82	472.6	310.8	783.4	65.9	73.1	81.0	85.4	0.1601	423	870	986
Oriole/ACSS	170	30	7	2.69	2.69	18.82	472.6	310.8	783.4	65.9	73.1	81.0	85.4	0.1601	423	870	986
Brant/ACSS	201	24	7	3.27	2.18	19.61	557.2	204.1	761.3	49.5	53.9	59.3	63.0	0.1368	462	953	1080
Brant/ACSS	201	24	7	3.27	2.18	19.61	557.2	204.1	761.3	49.5	53.9	59.3	63.0	0.1368	462	953	1080
Ibis/ACSS	201	26	7	3.14	2.44	19.89	557.2	255.7	812.9	57.8	63.6	70.2	73.8	0.1365	464	958	1086
Ibis/ACSS	201	26	7	3.14	2.44	19.89	557.2	255.7	812.9	57.8	63.6	70.2	73.8	0.1365	464	958	1086
Lark/ACSS	201	30	7	2.92	2.92	20.47	558.5	366.2	924.7	77.7	86.1	95.5	100.6	0.1355	468	970	1101
Lark/ACSS	201	30	7	2.92	2.92	20.47	558.5	366.2	924.7	77.7	86.1	95.5	100.6	0.1355	468	970	1101
Flicker/ACSS	242	24	7	3.58	2.39	21.49	668.6	245.3	913.9	58.2	63.9	70.1	73.6	0.1142	515	1072	1217
Flicker/ACSS	242	24	7	3.58	2.39	21.49	668.6	245.3	913.9	58.2	63.9	70.1	73.6	0.1142	515	1072	1217
Hawk/ACSS	242	26	7	3.44	2.67	21.79	668.6	306.1	974.7	69.2	76.2	84.1	88.4	0.1135	518	1080	1227
Hawk/ACSS	242	26	7	3.44	2.67	21.79	668.6	306.1	974.7	69.2	76.2	84.1	88.4	0.1135	518	1080	1227
Hen/ACSS	242	30	7	3.20	3.20	22.43	670.3	439.8	1110.1	93.3	101.2	113.0	118.6	0.113	523	1093	1242
Hen/ACSS	242	30	7	3.20	3.20	22.43	670.3	439.8	1110.1	93.3	101.2	113.0	118.6	0.113	523	1093	1242
Parakeet/ACSS	282	24	7	3.87	2.58	23.22	779.9	285.9	1065.8	67.9	74.5	81.8	85.8	0.098	565	1187	1349
Parakeet/ACSS	282	24	7	3.87	2.58	23.22	779.9	285.9	1065.8	67.9	74.5	81.8	85.8	0.098	565	1187	1349
Dove/ACSS	282	26	7	3.72	2.89	23.55	780.1	358.7	1138.8	81.0	89.3	98.5	103.5	0.097	568	1194	1358
Dove/ACSS	282	26	7	3.72	2.89	23.55	780.1	358.7	1138.8	81.0	89.3	98.5	103.5	0.097	568	1194	1358
Eagle/ACSS	282	30	7	3.46	3.46	24.21	781.9	514.1	1296.0	109.1	118.3	132.1	138.7	0.097	573	1209	1374
Eagle/ACSS	282	30	7	3.46	3.46	24.21	781.9	514.1	1296.0	109.1	118.3	132.1	138.7	0.097	573	1209	1374
Peacock/ACSS	307	24	7	4.03	2.69	24.21	848.0	310.8	1158.8	73.7	80.9	88.8	93.2	0.090	595	1254	1426
Peacock/ACSS	307	24	7	4.03	2.69	24.21	848.0	310.8	1158.8	73.7	80.9	88.8	93.2	0.090	595	1254	1426
Squab/ACSS	307	26	7	3.87	3.01	24.54	848.0	389.1	1237.1	87.9	96.8	106.8	112.3	0.090	597	1261	1435
Squab/ACSS	307	26	7	3.87	3.01	24.54	848.0	389.1	1237.1	87.9	96.8	106.8	112.3	0.090	597	1261	1435
Teal/ACSS	307	30	19	3.61	2.16	25.25	850.0	544.9	1394.9	118.6	130.5	144.8	154.5	0.089	602	1275	1452
Teal/ACSS	307	30	19	3.61	2.16	25.25	850.0	544.9	1394.9	118.6	130.5	144.8	154.5	0.089	602	1275	1452
Wood Duck/ACSS	307	30	7	3.61	3.61	25.25	850.0	559.7	1409.7	116.6	126.6	141.3	148.4	0.089	603	1278	1454

Aluminium Conductor Steel Supported – (ACSS)



CODE WORD	SIZE	STRANDING				DIAMETER OF COMPLETE CONDUCTOR	WEIGHT			RATED STRENGTH				DC RESISTANCE @ 20°C	CURRENT CAPACITY		
		NO. OF WIRES		WIRE DIAMETER			ALLUMINIUM	STEEL	TOTAL	REGULAR STRENGTH	HIGH STRENGTH	EXTRA HIGH STRENGTH	ULTRA HIGH STRENGTH		@ 85°C	@ 150°C	@ 210°C
		ALLUMINIUM	STEEL	ALLUMINIUM	STEEL												
Wood Duck/ACSS	307	30	7	3.61	3.61	25.25	850.0	559.7	1409.7	116.6	126.6	141.3	148.4	0.089	603	1278	1454
Rook/ACSS	322	24	7	4.14	2.76	24.82	891.4	327.1	1218.5	77.7	85.2	93.6	98.2	0.086	612	1295	1473
Rook/ACSS	322	24	7	4.14	2.76	24.82	891.4	327.1	1218.5	77.7	85.2	93.6	98.2	0.086	612	1295	1473
Grosbeak/ACSS	322	26	7	3.97	3.09	25.17	891.4	410.0	1301.4	92.6	99.9	110.9	116.2	0.085	615	1303	1482
Grosbeak/ACSS	322	26	7	3.97	3.09	25.17	891.4	410.0	1301.4	92.6	99.9	110.9	116.2	0.085	615	1303	1482
Egret/ACSS	322	30	19	3.70	2.22	25.88	893.6	575.6	1469.2	125.2	137.7	152.8	163.1	0.085	621	1320	1502
Egret/ACSS	322	30	19	3.70	2.22	25.88	893.6	575.6	1469.2	125.2	137.7	152.8	163.1	0.085	621	1320	1502
Scoter/ACSS	322	30	7	3.70	3.70	25.88	893.6	587.9	1481.5	122.5	133.0	148.4	155.9	0.085	621	1320	1502
Scoter/ACSS	322	30	7	3.70	3.70	25.88	893.6	587.9	1481.5	122.5	133.0	148.4	155.9	0.085	621	1320	1502
Flamingo/ACSS	338	24	7	4.23	2.82	25.40	934.4	341.5	1275.9	81.1	88.9	97.7	102.5	0.082	629	1335	1519
Flamingo/ACSS	338	24	7	4.23	2.82	25.40	934.4	341.5	1275.9	81.1	88.9	97.7	102.5	0.082	629	1335	1519
Gannet/ACSS	338	26	7	4.07	3.16	25.76	934.3	428.8	1363.1	96.9	104.6	116.1	121.6	0.081	633	1343	1529
Gannet/ACSS	338	26	7	4.07	3.16	25.76	934.3	428.8	1363.1	96.9	104.6	116.1	121.6	0.081	633	1343	1529
Stilt/ACSS	363	24	7	4.39	2.92	26.31	1002.9	366.2	1369.1	87.0	95.5	104.8	110.0	0.076	657	1398	1592
Starling/ACSS	363	26	7	4.21	3.28	26.70	1002.9	462.0	1464.9	104.3	112.5	125.0	130.9	0.076	660	1407	1603
Redwing/ACSS	363	30	19	3.92	2.35	27.46	1005.4	645.0	1650.4	137.1	151.9	168.4	177.4	0.076	665	1423	1621
Cuckoo/ACSS	403	24	7	4.62	3.08	27.74	1114.3	407.4	1521.7	96.7	104.0	115.0	120.2	0.069	699	1496	1706
Drake/ACSS	403	26	7	4.44	3.45	28.12	1114.3	511.1	1625.4	115.5	124.6	138.4	144.9	0.069	701	1503	1714
Mallard/ACSS	403	30	19	4.14	2.48	28.93	1117.0	718.3	1835.3	152.7	169.2	187.6	197.6	0.068	709	1525	1739
Macaw/ACSS	403	42	7	3.50	1.94	26.80	1114.3	161.6	1275.9	53.3	56.8	61.0	63.9	0.069	681	1454	1656
Tern/ACSS	403	45	7	3.38	2.25	27.00	1114.3	217.4	1331.7	63.6	68.4	74.1	78.0	0.069	684	1460	1664
Condor/ACSS	403	54	7	3.08	3.08	27.74	1114.3	407.4	1521.7	96.7	104.0	115.0	120.2	0.069	689	1477	1683
Ruddy/ACSS	456	45	7	3.59	2.40	28.73	1261.5	247.4	1508.9	70.9	76.6	82.9	86.4	0.061	735	1582	1805
Canary/ACSS	456	54	7	3.28	3.28	29.51	1261.5	462.0	1723.5	109.7	118.0	130.4	136.3	0.060	743	1604	1830
Redbird/ACSS	483	24	7	5.06	3.38	30.38	1337.1	490.6	1827.7	116.4	125.2	138.3	144.6	0.057	779	1686	1926
Canvasback/ACSS	483	30	19	4.53	2.72	31.70	1340.4	864.1	2204.5	183.5	203.4	225.5	237.6	0.056	791	1721	1966
Rail/ACSS	483	45	7	3.70	2.47	29.59	1337.1	262.0	1599.1	75.2	81.2	87.9	91.6	0.057	762	1645	1878
Towhee/ACSS	483	48	7	3.58	2.79	29.85	1337.1	334.3	1671.4	88.2	95.9	104.4	109.1	0.057	763	1650	1884
Cardinal/ACSS	483	54	7	3.38	3.38	30.38	1337.3	490.6	1827.9	116.5	125.3	138.5	144.7	0.057	768	1664	1900
Snowbird/ACSS	524	42	7	3.99	2.21	30.56	1448.6	209.7	1658.3	69.2	73.8	79.3	83.0	0.053	796	1727	1973
Ortolan/ACSS	524	45	7	3.85	2.57	30.78	1448.6	283.6	1732.2	81.4	87.9	95.2	99.2	0.053	797	1731	1978
Curlew/ACSS	524	54	7	3.51	3.51	31.62	1448.6	529.1	1977.7	125.6	135.1	149.3	156.1	0.053	805	1752	2002
Bluejay/ACSS	564	45	7	4.00	2.66	31.95	1560.0	303.9	1863.9	87.4	94.4	102.2	106.5	0.049	834	1819	2079

Aluminium Conductor Steel Supported – (ACSS)



CODE WORD	SIZE	STRANDING				DIAMETER OF COMPLETE CONDUCTOR	WEIGHT			RATED STRENGTH				DC RESISTANCE @ 20°C	CURRENT CAPACITY		
		NO. OF WIRES		WIRE DIAMETER			ALLUMINIUM	STEEL	TOTAL	REGULAR STRENGTH	HIGH STRENGTH	EXTRA HIGH STRENGTH	ULTRA HIGH STRENGTH		@ 85°C	@ 150°C	@ 210°C
		ALLUMINIUM	STEEL	ALLUMINIUM	STEEL												
Finch/ACSS	(MM ²)	(NO.)	(NO.)	(MM)	(MM)	(MM)	(KG/KM)	(KG/KM)	(KG/KM)	(KN)	(KN)	(KN)	(KN)	(Ω/KM)	Ampere	Ampere	Ampere
Finch/ACSS	564	54	19	3.65	2.19	32.82	1567.6	560.2	2127.8	136.3	148.5	163.2	173.2	0.049	839	1836	2099
Bunting/ACSS	604	45	7	4.14	2.76	33.07	1671.5	327.1	1998.6	93.9	101.5	109.9	114.5	0.046	868	1903	2177
Bittern/ACSS	645	45	7	4.27	2.85	34.16	1783.0	348.8	2131.8	100.1	108.1	117.1	122.0	0.043	901	1985	2272
Pheasant/ACSS	645	54	19	3.90	2.34	35.08	1791.6	639.5	2431.1	152.4	167.1	183.4	192.4	0.043	908	2004	2295
Dipper/ACSS	685	45	7	4.40	2.93	35.20	1893.7	368.7	2262.4	106.0	114.5	123.9	129.1	0.041	931	2059	2358
Martin/ACSS	685	54	19	4.02	2.41	36.17	1902.9	678.4	2581.3	161.7	177.3	194.6	204.2	0.040	941	2087	2391
Bobolink/ACSS	725	45	7	4.53	3.02	36.25	2005.7	391.7	2397.4	112.5	121.5	131.5	137.1	0.038	963	2138	2451
Plover/ACSS	725	54	19	4.14	2.48	37.21	2015.6	718.3	2733.9	171.3	187.8	206.2	216.3	0.038	969	2159	2475
Nuthatch/ACSS	765	45	7	4.65	3.10	37.21	2116.5	412.7	2529.2	118.5	125.9	137.0	142.3	0.036	992	2213	2538
Parrot/ACSS	765	54	19	4.25	2.55	38.23	2126.9	759.5	2886.4	180.9	198.4	217.8	228.5	0.036	1004	2244	2574
Ratite/ACSS	806	42	7	4.94	2.75	37.90	2228.7	324.8	2553.5	105.0	112.5	120.8	125.4	0.034	1022	2287	2624
Lapwing/ACSS	806	45	7	4.78	3.18	38.20	2228.7	434.3	2663.0	124.9	132.7	144.4	149.9	0.034	1024	2294	2632
Falcon/ACSS	806	54	19	4.36	2.62	39.22	2239.5	801.7	3041.2	190.9	209.3	229.8	241.1	0.034	1032	2317	2659
Chukar/ACSS	902	84	19	3.70	2.22	40.67	2507.1	575.6	3082.7	158.7	171.2	186.2	196.5	0.031	1106	2503	2876
Mockingbird/ACSS	1031	72	7	4.27	2.85	42.70	2865.6	348.8	3214.4	122.4	130.4	139.3	144.2	0.027	1178	2693	3100
Roadrunner/ACSS	1042	76	19	4.18	1.95	43.18	2897.3	444.1	3341.4	142.4	152.0	163.6	171.6	0.027	1188	2719	3130
Bluebird/ACSS	1092	84	19	4.07	2.44	44.75	3036.7	695.4	3732.1	188.2	204.2	222.0	231.8	0.026	1225	2819	3248
Kiwi/ACSS	1098	72	7	4.41	2.94	44.07	3052.2	371.2	3423.4	130.4	138.9	148.4	153.6	0.026	1217	2799	3225
Thrasher/ACSS	1171	76	19	4.43	2.07	45.77	3256.4	500.5	3756.9	160.2	171.1	184.2	193.1	0.024	1263	2923	3371
Joree/ACSS	1274	76	19	4.62	2.16	47.75	3542.4	544.9	4087.3	174.3	186.2	200.5	210.2	0.022	1321	3086	3563

Aluminium Conductor Steel Supported – (ACSS/AW)



CODE WORD	SIZE	STRANDING				DIAMETER OF COMPLETE CONDUCTOR	WEIGHT			RATED STRENGTH		DC RESISTANCE @ 20°C	CURRENT CAPACITY		
		NO. OF WIRES		WIRE DIAMETER			ALLUMINIUM	ACS	TOTAL	REGULAR STRENGTH	HIGH STRENGTH		@ 85°C	@ 150°C	@ 210°C
		ALLUMINIUM	ACS	ALLUMINIUM	ACS										
Junco/ACSS/AW	135	30	7	2.40	2.40	16.8	375.0	209.5	584.5	68.8	57.9	0.1932	376	764.8	865
Ostrich/ACSS/AW	152	26	7	2.73	2.12	17.3	421.1	163.5	584.6	111.3	48.8	0.1752	398	810.3	917
Linnet/ACSS/AW	170	26	7	2.89	2.25	18.3	471.7	184.2	655.9	60.7	54.9	0.1562	426	873.2	989
Oriole/ACSS/AW	170	30	7	2.69	2.69	18.8	473.2	263.2	736.4	71.1	72.7	0.1532	433	889.4	1008
Brant/ACSS/AW	201	24	7	3.27	2.18	19.6	556.6	172.9	729.5	128.7	53.9	0.1335	468	964.6	1094
Ibis/ACSS/AW	201	26	7	3.14	2.44	19.9	556.6	216.6	773.2	182.4	63.3	0.1322	471	973.6	1104
Lark/ACSS/AW	201	30	7	2.92	2.92	20.5	558.1	310.2	868.3	83.9	85.6	0.1296	479	992.1	1125
Flicker/ACSS/AW	242	24	7	3.58	2.39	21.5	668.2	207.8	876.0	50.4	63.5	0.1112	522	1086.8	1234
Hawk/ACSS/AW	242	26	7	3.44	2.67	21.8	668.2	259.3	927.5	63.3	75.8	0.1102	526	1096.4	1245
Hen/ACSS/AW	242	30	7	3.20	3.20	22.4	669.7	372.5	1042.2	98.3	100.9	0.1079	535	1118.1	1270
Parakeet/ACSS/AW	282	24	7	3.87	2.58	23.2	779.8	242.1	1021.9	184.1	74.1	0.0955	572	1200.8	1365
Dove/ACSS/AW	282	26	7	3.72	2.89	23.6	779.8	303.8	1083.6	74.6	88.8	0.0945	577	1212.5	1378
Eagle/ACSS/AW	282	30	7	3.46	3.46	24.2	781.3	435.5	1216.8	116.5	117.9	0.0925	586	1236.2	1406
Peacock/ACSS/AW	307	24	7	4.03	2.69	24.2	848.3	263.2	1111.5	176.2	80.5	0.0876	602	1269.9	1444
Squab/ACSS/AW	307	26	7	3.87	3.01	24.5	848.3	329.6	1177.9	109.2	96.3	0.0869	606	1280.5	1457
Teal/ACSS/AW	307	30	19	3.61	2.16	25.3	849.7	461.6	1311.3	167.0	130.5	0.0853	616	1304.1	1484
Wood Duck/ACSS/AW	307	30	7	3.61	3.61	25.3	849.7	474.1	1323.8	112.0	126.2	0.0853	616	1304.1	1484
Rook/ACSS/AW	322	24	7	4.14	2.76	24.8	891.4	277.1	1168.5	91.2	84.8	0.0837	619	1309.1	1490
Grosbeak/ACSS/AW	322	26	7	3.97	3.09	25.2	891.4	347.3	1238.7	115.0	99.6	0.0827	625	1322.8	1506
Egret/ACSS/AW	322	30	19	3.70	2.22	25.9	892.9	487.6	1380.5	150.9	137.7	0.0810	635	1348.5	1535
Scoter/ACSS/AW	322	30	7	3.70	3.70	25.9	892.9	498.0	1390.9	1241.0	132.6	0.0810	635	1348.5	1535
Flamingo/ACSS/AW	338	24	7	4.23	2.82	25.4	934.6	289.3	1223.9	97.1	88.5	0.0797	637	1351.1	1538
Gannet/ACSS/AW	338	26	7	4.07	3.16	25.8	934.6	363.2	1297.8	121.2	104.3	0.0787	643	1365.7	1555
Stilt/ACSS/AW	363	24	7	4.39	2.92	26.3	1003.0	310.2	1313.2	102.9	95.0	0.0741	665	1416.4	1613
Starling/ACSS/AW	363	26	7	4.21	3.28	26.7	1003.0	391.3	1394.3	103.8	112.2	0.0735	670	1428.9	1628
Redwing/ACSS/AW	363	30	19	3.92	2.35	27.5	1006.0	546.3	1552.3	56.1	151.1	0.0722	680	1454.7	1658
Cuckoo/ACSS/AW	403	24	7	4.62	3.08	27.7	1114.6	345.1	1459.7	93.3	103.8	0.0669	707	1515.1	1727
Drake/ACSS/AW	403	26	7	4.44	3.45	28.1	1114.6	433.0	1547.6	102.5	124.3	0.0663	713	1528.6	1743
Mallard/ACSS/AW	403	30	19	4.14	2.48	28.9	1117.6	608.5	1726.1	165.2	168.3	0.0650	724	1558.1	1777
Macaw/ACSS/AW	403	42	7	3.50	1.94	26.8	1114.6	136.9	1251.5	136.3	56.8	0.0686	684	1460.0	1664
Tern/ACSS/AW	403	45	7	3.38	2.25	27.0	1114.6	184.2	1298.8	138.1	68.4	0.0682	687	1467.9	1673

Aluminium Conductor Steel Supported – (ACSS/AW)



CODE WORD	SIZE	STRANDING				DIAMETER OF COMPLETE CONDUCTOR	WEIGHT			RATED STRENGTH		DC RESISTANCE @ 20°C	CURRENT CAPACITY		
		NO. OF WIRES		WIRE DIAMETER			ALLUMINIUM	ACS	TOTAL	REGULAR STRENGTH	HIGH STRENGTH		@ 85°C	@ 150°C	@ 210°C
		ALLUMINIUM	ACS	ALLUMINIUM	ACS										
Condor/ACSS/AW	403	54	7	3.08	3.08	27.7	1114.6	345.1	1459.7	89.1	103.8	0.0669	698	1495.1	1704
Ruddy/ACSS/AW	456	45	7	3.59	2.40	28.7	1262.0	209.5	1471.5	156.0	76.3	0.0600	741	1594.8	1819
Canary/ACSS/AW	456	54	7	3.28	3.28	29.5	1262.0	391.3	1653.3	110.2	117.7	0.0591	751	1621.2	1850
Canvasback/ACSS/AW	483	30	19	4.53	2.72	31.7	1340.8	731.9	2072.7	74.9	202.3	0.0541	807	1756.8	2007
Rail/ACSS/AW	483	45	7	3.70	2.47	29.6	1337.9	221.9	1559.8	146.6	80.9	0.0568	766	1653.9	1888
Towhee/ACSS/AW	483	48	7	3.58	2.79	29.9	1337.9	283.2	1621.1	78.2	95.5	0.0564	770	1664.6	1900
Cardinal/ACSS/AW	483	54	7	3.38	3.38	30.4	1337.9	415.6	1753.5	108.9	125.0	0.0558	777	1683.4	1922
Snowbird/ACSS/AW	524	42	7	3.99	2.21	30.6	1448.0	177.7	1625.7	117.4	73.8	0.0528	798	1731.8	1978
Curlew/ACSS/AW	524	54	7	3.51	3.51	31.6	1448.0	448.2	1896.2	109.0	134.8	0.0515	815	1773.8	2027
Bluejay/ACSS/AW	564	45	7	4.00	2.66	32.0	1559.6	257.4	1817.0	66.6	94.0	0.0486	839	1830.0	2092
Finch/ACSS/AW	564	54	19	3.65	2.19	32.8	1567.0	474.5	2041.5	66.3	148.5	0.0479	850	1860.3	2127
Bunting/ACSS/AW	604	45	7	4.14	2.76	33.1	1671.2	277.1	1948.3	85.4	101.1	0.0453	874	1915.2	2191
Grackle/ACSS/AW	604	54	19	3.77	2.27	34.0	1680.1	509.8	2189.9	147.0	159.3	0.0449	883	1941.6	2222
Bittern/ACSS/AW	645	45	7	4.27	2.85	34.2	1782.8	295.5	2078.3	119.4	107.7	0.0427	904	1992.0	2280
Pheasant/ACSS/AW	645	54	19	3.90	2.34	35.1	1791.7	541.7	2333.4	131.6	166.3	0.0420	918	2027.3	2321
Dipper/ACSS/AW	685	45	7	4.40	2.93	35.2	1892.9	312.3	2205.2	127.2	114.0	0.0400	939	2076.4	2378
Martin/ACSS/AW	685	54	19	4.02	2.41	36.2	1903.4	574.6	2478.0	55.6	176.4	0.0394	952	2112.5	2420
Bobolink/ACSS/AW	725	45	7	4.53	3.02	36.3	2006.0	331.8	2337.8	93.3	121.0	0.0377	971	2157.5	2473
Plover/ACSS/AW	725	54	19	4.14	2.48	37.2	2015.0	608.5	2623.5	174.5	186.9	0.0374	982	2186.8	2507
Nuthatch/ACSS/AW	765	45	7	4.65	3.10	37.2	2116.2	349.6	2465.8	93.3	125.7	0.0358	1000	2231.0	2559
Parrot/ACSS/AW	765	54	19	4.25	2.55	38.2	2126.6	643.3	2769.9	65.5	197.4	0.0354	1013	2266.0	2599
Lapwing/ACSS/AW	806	45	7	4.78	3.18	38.2	2229.3	367.8	2597.1	89.6	132.4	0.0341	1028	2303.6	2643
Falcon/ACSS/AW	806	54	19	4.36	2.62	39.2	2239.7	679.1	2918.8	84.9	208.3	0.0335	1045	2347.0	2694
Chukar/ACSS/AW	902	84	19	3.70	2.22	40.7	2507.5	487.6	2995.1	47.2	171.2	0.0305	1111	2514.4	2889
Mockingbird/ACSS/AW	1031	72	7	4.27	2.85	42.7	2866.2	295.5	3161.7	78.0	129.9	0.0269	1184	2706.9	3116
Roadrunner/ACSS/AW	1042	76	19	4.18	1.95	43.2	2897.4	376.2	3273.6	153.4	152.0	0.0266	1194	2733.1	3147
Bluebird/ACSS/AW	1092	84	19	4.07	2.44	44.8	3037.3	589.0	3626.3	73.0	203.3	0.0253	1232	2835.2	3266
Kiwi/ACSS/AW	1098	72	7	4.41	2.94	44.1	3052.2	314.4	3366.6	84.6	138.4	0.0253	1224	2814.7	3243
Thrasher/ACSS/AW	1171	76	19	4.43	2.07	45.8	3256.1	423.9	3680.0	42.0	171.1	0.0236	1272	2946.0	3398
Joree/ACSS/AW	1274	76	19	4.62	2.16	47.8	3541.8	461.6	4003.4	46.7	186.2	0.0217	1329	3105.1	3586

Aluminium Conductor Steel Supported – (ACSS/TW)



CODE WORD	SIZE (MM ²)	CROSS-SECTIONAL AREA			STRANDING				DIAMETER OF COMPLETE CONDUCTOR (MM)	WEIGHT			RATED STRENGTH				DC RESISTANCE @ 20°C (Ω/KM)	CURRENT CAPACITY		
		ALUMINIUM (MM ²)	STEEL (MM ²)	TOTAL (MM ²)	NO. OF WIRES		WIRE DIAMETER			ALUMINIUM (KG/KM)	STEEL (KG/KM)	TOTAL (KG/KM)	REGULAR STRENGTH (KN)	HIGH STRENGTH (KN)	EXTRA HIGH STRENGTH (KN)	ULTRA HIGH STRENGTH (KN)		@ 85°C Ampere	@ 200°C Ampere	@ 250°C Ampere
					ALUMINIUM (NO.)	STEEL (NO.)	ALUMINIUM (MM)	STEEL (MM)												
Tern/ACSS/TW	403	402.84	28.08	430.92	17	2	7	2.26	24.38	1110.00	219.34	1329.34	63.92	68.69	74.45	78.38	0.06860	680	1437	1635
Cheyenne/ ACSS/ TW	592	591.93	30.62	622.55	30	2	7	2.36	29.34	1637.60	239.18	1876.78	77.27	82.78	88.91	92.27	0.04690	850	1837	2097
Flicker/ACSS/TW	242	241.74	31.40	273.14	18	2	7	2.39	19.71	667.30	245.30	912.60	58.20	63.86	70.14	73.59	0.11420	506	1044	1184
Catawba/ACSS/TW	645	644.58	33.27	677.85	30	2	7	2.46	30.56	1782.80	259.88	2042.68	84.04	90.03	96.68	100.34	0.04330	890	1935	2211
Parakeet/ACSS/TW	282	282.00	36.60	318.60	18	2	7	2.58	21.21	778.60	285.85	1064.45	67.84	74.43	81.75	85.77	0.09740	556	1156	1313
Mohawk/ACSS/TW	290	289.68	37.74	327.42	18	2	7	2.62	21.49	799.60	294.78	1094.38	69.90	76.69	84.24	88.39	0.09480	565	1177	1336
Hawk/ACSS/TW	242	241.68	39.49	281.17	18	2	7	2.68	20.04	667.70	308.44	976.14	69.60	76.71	84.60	88.95	0.11350	509	1053	1194
Rook/ACSS/TW	322	322.26	41.88	364.14	20	2	7	2.76	22.61	889.80	327.13	1216.93	77.61	85.15	93.53	98.13	0.08530	602	1260	1432
Puffin/ACSS/TW	403	402.84	43.72	446.56	18	2	7	2.82	24.89	1111.50	341.51	1453.01	84.85	92.72	101.46	106.27	0.06860	684	1447	1646
Mystic/ACSS/TW	338	337.81	43.72	381.53	20	2	7	2.82	23.19	932.50	341.51	1274.01	81.10	88.97	97.72	102.53	0.08140	619	1300	1477
Dove/ACSS/TW	282	282.00	46.24	328.24	20	2	7	2.90	21.64	779.10	361.16	1140.26	81.44	89.76	99.01	104.09	0.09710	559	1165	1323
Calumet/ACSS/TW	286	286.39	46.88	333.27	20	2	7	2.92	21.84	790.50	366.16	1156.66	82.59	91.03	100.40	105.56	0.09580	564	1177	1336
Maumee/ACSS/TW	389	389.29	50.81	440.10	20	2	7	3.04	24.82	1074.60	396.87	1471.47	94.06	103.21	113.37	118.96	0.07050	674	1426	1623
Grosbeak/ACSS/TW	322	322.26	52.49	374.75	20	2	7	3.09	23.06	890.50	410.03	1300.53	92.58	99.93	110.95	116.20	0.08500	605	1270	1443
Condor/ACSS/TW	403	402.84	52.49	455.33	20	2	7	3.09	25.22	1112.00	410.03	1522.03	97.22	104.57	115.59	120.84	0.06820	688	1457	1658
Oswego/ACSS/TW	337	336.84	54.90	391.74	20	2	7	3.16	23.55	930.70	428.82	1359.52	96.81	104.50	116.02	121.51	0.08140	621	1306	1485
Cardinal/ACSS/TW	483	483.42	62.81	546.23	20	2	7	3.38	27.53	1335.30	490.61	1825.91	116.41	125.20	138.39	144.67	0.05680	766	1640	1869
Wabash/ACSS/TW	387	386.58	63.18	449.76	20	2	7	3.39	25.15	1067.00	493.52	1560.52	111.35	120.20	133.47	139.78	0.07090	674	1428	1625
Columbia/ACSS/TW	490	489.61	63.55	553.16	21	2	7	3.40	27.74	1351.20	496.43	1847.63	117.81	126.71	140.06	146.41	0.05840	757	1621	1848
Drake/ACSS/TW	403	402.84	65.82	468.66	20	2	7	3.46	25.65	1112.80	514.11	1626.91	116.01	125.22	139.04	145.62	0.06790	692	1468	1671
Curlew/ACSS/TW	524	523.68	68.12	591.80	20	2	7	3.52	28.68	1445.20	532.09	1977.29	126.21	135.75	150.06	156.87	0.05250	803	1727	1970
Suwannee/ACSS/TW	486	486.26	79.39	565.65	22	2	7	3.80	28.14	1343.80	620.11	1963.91	137.56	148.68	164.95	172.89	0.05640	772	1657	1890
Phoenix/ACSS/TW	483	483.42	24.94	508.36	30	3	7	2.13	26.52	1341.70	194.83	1536.53	64.01	68.25	73.37	76.86	0.05770	743	1586	1807
Snowbird/ACSS/TW	524	523.68	27.10	550.78	30	3	7	2.22	27.66	1449.20	211.65	1660.85	69.45	74.06	79.61	83.41	0.05310	781	1674	1909
Avocet/ACSS/TW	564	564.00	29.08	593.08	30	3	7	2.30	28.68	1560.90	227.17	1788.07	73.49	78.73	84.55	87.74	0.04920	816	1758	2006
Oxbird/ACSS/TW	604	604.26	31.14	635.40	30	3	7	2.38	29.64	1671.20	243.25	1914.45	78.72	84.32	90.55	93.97	0.04590	849	1838	2099
Scissortail/ACSS/TW	645	644.58	33.27	677.85	30	3	7	2.46	30.56	1782.80	259.88	2042.68	84.04	90.03	96.68	100.34	0.04330	879	1909	2182
Rail/ACSS/TW	483	483.42	33.54	516.96	32	3	7	2.47	26.95	1339.30	262.00	1601.30	75.14	81.18	87.88	91.57	0.05740	748	1598	1821
Kettle/ACSS/TW	485	485.03	33.81	518.84	32	3	7	2.48	26.92	1343.50	264.12	1607.62	75.62	81.70	88.46	92.18	0.05740	748	1597	1821
Truckee/ACSS/TW	695	695.48	36.03	731.51	30	3	7	2.56	31.70	1924.80	281.44	2206.24	90.86	97.35	104.55	108.52	0.04000	920	2008	2296
Ortolan/ACSS/TW	524	523.68	36.31	559.99	32	3	7	2.57	27.99	1451.30	283.64	1734.94	81.36	87.90	95.16	99.16	0.05310	783	1681	1917
St. Croix/ACSS/TW	744	743.80	38.61	782.41	33	3	7	2.65	32.82	2058.10	301.57	2359.67	97.28	104.23	111.95	116.20	0.03740	956	2098	2401
Bluejay/ACSS/TW	564	564.00	39.19	603.19	33	3	7	2.67	29.03	1565.80	306.14	1871.94	87.75	94.80	102.64	106.95	0.04920	818	1765	2014
Platte/ACSS/TW	795	795.03	40.97	836.00	33	3	7	2.73	33.88	2199.50	320.06	2519.56	103.57	110.94	119.14	123.65	0.03510	991	2186	2503
Genesee/ACSS/TW	587	586.77	41.28	628.05	33	3	7	2.74	29.59	1625.10	322.41	1947.51	92.00	99.43	107.68	112.22	0.04720	838	1812	2069

Aluminium Conductor Steel Supported – (ACSS/TW)



CODE WORD	SIZE	CROSS-SECTIONAL AREA				STRANDING				DIAMETER OF COMPLETE CONDUCTOR	WEIGHT			RATED STRENGTH				DC RESISTANCE @ 20°C	CURRENT CAPACITY		
		ALUMINIUM	STEEL	TOTAL	NO. OF WIRES		WIRE DIAMETER		ALUMINIUM		STEEL	TOTAL	REGULAR STRENGTH	HIGH STRENGTH	EXTRA HIGH STRENGTH	ULTRA HIGH STRENGTH	@ 85°C		@ 200°C	@ 250°C	
					ALUMINIUM	STEEL	ALUMINIUM	STEEL													
Bunting/ACSS/TW	604	604.26	41.88	646.14	33	3	7	2.76	30.00	1672.70	327.13	1999.83	93.86	101.39	109.77	114.38	0.04590	852	1845	2108	
Nelson/ACSS/TW	637	637.03	44.34	681.37	35	3	7	2.84	30.81	1764.50	346.37	2110.87	99.22	107.20	116.07	120.94	0.04360	878	1909	2181	
Bittern/ACSS/TW	645	644.51	44.66	689.17	35	3	7	2.85	30.99	1784.30	348.81	2133.11	100.09	108.13	117.06	121.97	0.04300	885	1925	2200	
Dipper/ACSS/TW	685	684.84	47.52	732.36	35	3	7	2.94	31.90	1895.90	371.19	2267.09	106.45	115.00	124.51	129.74	0.04070	914	1996	2282	
Fraser/ACSS/TW	480	479.74	47.52	527.26	35	3	7	2.94	27.36	1330.40	371.19	1701.59	94.64	103.19	112.70	117.92	0.05770	749	1602	1826	
Mackenzie/ACSS/TW	689	688.97	47.84	736.81	36	3	7	2.95	31.98	1904.80	373.72	2278.52	107.15	115.76	125.33	130.59	0.04040	918	2005	2293	
Bobolink/ACSS/TW	725	724.90	50.47	775.37	36	3	7	3.03	32.79	2009.00	394.26	2403.26	112.92	122.01	132.10	137.66	0.03840	945	2072	2370	
Miramichi/ACSS/TW	737	737.42	51.14	788.56	36	3	7	3.05	33.07	2041.80	399.49	2441.29	114.59	121.75	132.49	137.60	0.03770	955	2096	2398	
Potomac/ACSS/TW	789	789.16	54.90	844.06	36	3	7	3.16	34.16	2184.60	428.82	2613.42	122.86	130.55	142.08	147.57	0.03510	994	2193	2511	
Lapwing/ACSS/TW	806	805.68	55.95	861.63	36	3	7	3.19	34.49	2230.80	437.00	2667.80	125.29	133.12	144.87	150.47	0.03440	1005	2221	2544	
Schuykill/ACSS/TW	840	840.00	58.07	898.07	36	3	7	3.25	35.20	2326.00	453.60	2779.60	130.26	138.39	150.59	156.40	0.03310	1028	2278	2610	
Pee Dee/ACSS/TW	891	890.97	62.07	953.04	37	3	7	3.36	36.25	2467.40	484.82	2952.22	138.84	147.53	160.56	166.77	0.03120	1063	2366	2713	
Athabaska/ACSS/TW	988	987.87	68.90	1056.77	42	3	7	3.54	38.20	2735.20	538.16	3273.36	154.04	163.69	178.16	185.05	0.02820	1125	2526	2900	
Hudson/ACSS/TW	587	586.97	76.49	663.46	26	3	7	3.73	30.38	1620.60	597.48	2218.08	139.37	150.07	165.76	173.40	0.04690	847	1835	2096	
Finch/ACSS/TW	564	564.00	71.57	635.57	38	3	19	2.19	30.10	1566.40	560.16	2126.56	136.26	148.43	163.10	173.12	0.04890	828	1792	2046	
Chukar/ACSS/TW	902	902.32	73.54	975.86	37	3	19	2.22	36.70	2494.20	575.61	3069.81	158.61	171.12	186.19	196.49	0.03080	1072	2391	2743	
Grackle/ACSS/TW	604	604.26	76.89	681.15	38	3	19	2.27	31.12	1677.20	601.83	2279.03	146.30	159.37	175.14	185.90	0.04590	860	1869	2135	
Yukon/ACSS/TW	625	625.10	80.32	705.42	38	3	19	2.32	31.62	1735.90	628.63	2364.53	149.26	163.71	179.78	188.61	0.04430	877	1911	2184	
Pheasant/ACSS/TW	645	644.51	81.71	726.22	39	3	19	2.34	32.11	1788.80	639.52	2428.32	152.34	167.04	183.39	192.37	0.04300	893	1949	2228	
Thames/ACSS/TW	676	676.13	85.95	762.08	39	3	19	2.40	32.77	1877.50	672.74	2550.24	160.14	175.61	192.80	202.26	0.04100	917	2008	2297	
Martin/ACSS/TW	685	684.84	87.39	772.23	39	3	19	2.42	33.02	1901.90	683.99	2585.89	162.67	178.40	195.88	205.49	0.04040	925	2028	2319	
Plover/ACSS/TW	725	725.10	92.52	817.62	37	3	19	2.49	33.96	2013.50	724.14	2737.64	172.22	188.88	207.38	217.56	0.03810	957	2106	2410	
Merrimack/ACSS/TW	726	725.81	92.52	818.33	39	3	19	2.49	34.04	2017.90	724.14	2742.04	172.26	188.92	207.42	217.60	0.03810	957	2107	2412	
Rio Grande/ACSS/TW	777	776.97	99.33	876.30	39	3	19	2.58	35.10	2156.30	777.43	2933.73	184.81	202.69	222.56	233.48	0.03580	992	2194	2513	
Falcon/ACSS/TW	806	805.68	102.43	908.11	42	3	19	2.62	35.76	2236.70	801.72	3038.42	190.84	209.28	229.77	241.03	0.03440	1015	2250	2578	
Pecos/ACSS/TW	822	821.87	109.59	931.46	39	3	19	2.71	36.17	2281.30	857.75	3139.05	201.87	221.59	243.51	255.57	0.03350	1031	2288	2623	
James/ACSS/TW	877	876.77	112.03	988.80	34	3	19	2.74	37.34	2434.60	876.85	3311.45	208.47	228.63	251.04	263.36	0.03150	1067	2382	2732	
Cumberland/ACSS/TW	976	976.39	123.77	1100.16	42	3	19	2.88	39.24	2709.90	968.74	3678.64	230.76	253.04	277.80	291.41	0.03510	1023	2296	2635	
Bluebird/ACSS/TW	1092	705.42	89.57	794.99	64	4	19	2.45	40.84	3046.30	701.06	3747.36	166.93	183.05	200.97	210.82	0.25590	391	878	1007	
Powder/ACSS/TW	1091	1091.09	89.57	1180.66	64	4	19	2.45	40.69	3021.00	701.06	3722.06	189.14	205.27	223.18	233.04	0.02560	1206	2736	3146	
Santee/ACSS/TW	1331	1330.97	108.79	1439.76	64	4	19	2.70	44.75	3686.20	851.43	4537.63	230.05	249.63	271.39	283.36	0.02100	1340	3096	3571	



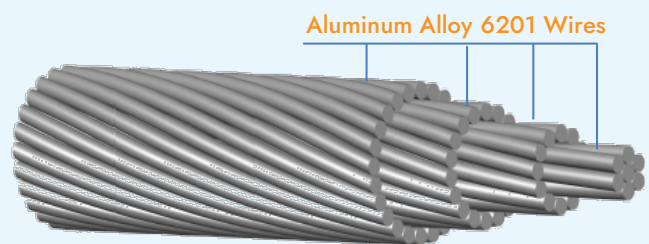
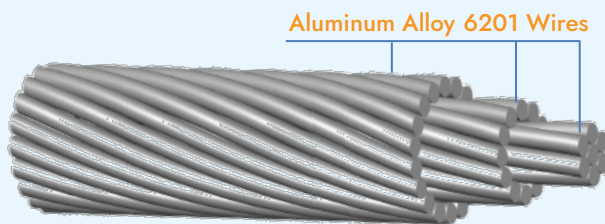
POWERLINE

ALL ALUMINUM ALLOY CONDUCTOR (AAAC)

These are made out of high strength Aluminum-Magnesium-Silicon alloy. As compared to conventional ACSR, AAAC are of lighter weight, comparable strength & current carrying capacity, lower electrical losses and superior corrosion resistance, This has given AAAC a wide acceptance in the distribution and transmission lines.. This conductor has a minimum conductivity of 52.5% IACS.

CONSTRUCTION:

Aluminum Alloy 6201 Wires, concentrically stranded over a central wire of Aluminum Alloy 6201.



FEATURES:

- High strength to weight ratio
- Improved electrical properties
- Excellent resistance to corrosion

* Current capacity based on referenced conductor temperature, 0.56 m/s wind, 0 m Elevation, 0.45 Emissivity, 0.80 absorptivity, 45°C Ambient temperature, 1045 W/m² Solar radiation.

ALL ALUMINUM ALLOY CONDUCTOR (AAAC) – ASTM B 399



CODE WORD	CONDUCTOR SIZE	SECTIONAL AREA	STRANDING		DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
			NO. OF ALUMINIUM WIRES	INDIVIDUAL WIRE DIAMETER					@ 75°C	@ 85°C
-	(MM ²)	(MM ²)	(NO.)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
-	1439.2	729	61	3.90	35.10	1999.00	207.00	0.04597	693	897
-	1348.8	685	61	3.78	34.02	1878.00	194.00	0.04893	671	865
-	1259.6	638	61	3.65	32.85	1751.00	181.00	0.05248	646	831
-	1165.1	590	61	3.51	31.59	1620.00	167.00	0.05675	620	794
-	1077.4	547	61	3.38	30.42	1502.00	156.00	0.06120	595	760
Greeley	927.2	470	37	4.02	28.14	1289.00	135.00	0.07133	547	694
Flint	740.8	375	37	3.59	25.13	1028.00	107.00	0.08944	482	607
Elgin	652.4	331	19	4.71	23.55	908.30	97.00	0.10120	449	564
Darien	559.5	284	19	4.36	21.80	778.30	83.10	0.11810	412	514
Cairo	465.4	236	19	3.98	19.90	648.60	69.20	0.14170	371	461
Canton	394.5	200	19	3.66	18.30	548.50	58.60	0.16760	337	417
Butte	312.8	159	19	3.26	16.30	435.10	46.50	0.21120	295	362
Alliance	246.9	125	7	4.77	14.31	343.20	37.80	0.26780	256	313
Amherst	195.7	99.3	7	4.25	12.75	272.50	30.00	0.33730	224	272
Anaheim	155.4	78.6	7	3.78	11.34	215.60	23.80	0.42640	195	236
Azusa	123.3	62.4	7	3.37	10.11	171.30	18.90	0.53650	170	205
Ames	77.47	39.2	7	2.67	8.01	107.50	12.40	0.85470	129	154
Alton	48.69	24.7	7	2.12	6.36	67.80	7.83	1.35600	98	116
Akron	30.58	15.5	7	1.68	5.04	42.58	4.92	2.15900	74	88

ALL ALUMINUM ALLOY CONDUCTOR (AAAC) – ASTM B 399



AWG	CONDUCTOR SIZE	SECTIONAL AREA	STRANDING		DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
			NO. OF ALUMINIUM WIRES	INDIVIDUAL WIRE DIAMETER					@ 75°C	@ 85°C
-	(MM ²)	(MM ²)	(NO.)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
-	1750	886	61	4.30	38.70	2431.0	251.00	0.03781	767	1002
-	1500	759	61	3.98	35.82	2082.0	215.00	0.04414	708	918
-	1250	631	61	3.63	32.67	1732.0	179.00	0.05306	642	826
-	1000	508	37	4.18	29.26	1393.0	146.00	0.06597	571	727
-	900	456	37	3.96	27.72	1250.0	131.00	0.07351	538	682
-	800	404	37	3.73	26.11	1109.0	116.00	0.08285	503	636
-	750	381	37	3.62	25.34	1045.0	109.00	0.08796	487	613
-	700	354	37	3.49	24.43	971.2	101.00	0.09464	467	587
-	650	330	37	3.37	23.59	905.5	94.90	0.10150	449	563
-	600	303	37	3.23	22.61	831.9	91.00	0.11049	428	535
-	550	279	37	3.10	21.70	766.2	83.90	0.11995	408	510
-	500	253	19	4.12	20.60	695.0	74.20	0.13224	386	480
-	450	228	19	3.91	19.55	626.0	66.80	0.14683	364	451
-	400	203	19	3.69	18.45	557.5	59.50	0.16486	340	421
-	350	178	19	3.45	17.25	487.3	52.00	0.18860	315	388
-	300	152	19	3.19	15.95	416.7	46.60	0.22059	287	353
-	250	126	19	2.91	14.55	346.7	38.80	0.26509	258	316
0000	211.6	107	7	4.42	13.26	294.7	32.50	0.31188	234	285
000	167.8	84.9	7	3.93	11.79	233.0	25.70	0.39450	204	247
00	133.1	67.3	7	3.50	10.50	184.8	20.40	0.49738	178	215
0	105.6	53.5	7	3.12	9.36	146.8	17.00	0.62592	155	187
2	66.36	33.5	7	2.47	7.41	92.0	10.60	0.99870	118	140
4	41.74	21.1	7	1.96	5.88	57.9	6.69	1.58600	89	106
6	26.24	13.2	7	1.55	4.65	36.2	4.18	2.53610	67	79

ALL ALUMINUM ALLOY CONDUCTOR (AAAC) – CAN/CSA-C61089-11, Type-A2



CODE WORD	SECTIONAL AREA	STRANDING		DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
		NO. OF ALUMINIUM WIRES	INDIVIDUAL WIRE DIAMETER					@ 75°C	@ 85°C
	(MM ²)	(NO.)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
10-A2-7	11.51	7	1.45	4.35	31.42	3.51	2.863	62	74
16-A2-7	18.42	7	1.83	5.49	50.28	5.62	1.790	83	98
25-A2-7	28.77	7	2.29	6.87	78.56	8.78	1.145	108	129
40-A2-7	46.04	7	2.89	8.67	125.7	14.0	0.7159	143	172
63-A2-7	72.51	7	3.63	10.89	198.0	22.1	0.4545	187	226
100-A2-19	115.10	19	2.78	13.90	315.8	35.1	0.2877	246	300
125-A2-19	143.9	19	3.10	15.50	394.7	43.9	0.2302	280	343
160-A2-19	184.2	19	3.51	17.55	505.2	56.2	0.1798	323	399
200-A2-19	230.2	19	3.93	19.65	631.5	70.2	0.1439	368	456
250-A2-19	287.7	19	4.39	21.95	789.4	87.8	0.1151	417	521
315-A2-37	362.5	37	3.53	24.71	997.0	111.0	0.09156	475	598
400-A2-37	460.4	37	3.98	27.86	1266.0	140.0	0.07210	543	689
450-A2-37	517.9	37	4.22	29.54	1424.0	158.0	0.06409	580	739
500-A2-37	575.5	37	4.45	31.15	1583.0	176.0	0.05768	614	786
560-A2-37	644.5	37	4.71	32.97	1772.0	197.0	0.05150	652	839
630-A2-61	725.1	61	3.89	35.01	1997.0	221.0	0.04585	694	898
710-A2-61	817.2	61	4.13	37.17	2251.0	249.0	0.04068	739	961
800-A2-61	920.8	61	4.38	39.42	2536.0	281.0	0.03610	785	1027
900-A2-61	1036	61	4.65	41.85	2853.0	316.0	0.03209	832	1096
1000-A2-91	1152	91	4.02	44.22	3177.0	351.0	0.02888	876	1161
1120-A2-91	1289	91	4.25	46.75	3554.0	393.0	0.02582	923	1231
1250-A2-91	1439	91	4.49	49.39	3966.0	439.0	0.02313	969	1303
1400-A2-91	1611	91	4.75	52.25	4442.0	491.0	0.02065	1017	1377
1500-A2-91	1726	91	4.91	54.01	4760.0	526.0	0.01928	1045	1423

ALL ALUMINUM ALLOY CONDUCTOR (AAAC) – CAN/CSA-C61089-11, Type-A4



CODE WORD	SECTIONAL AREA	STRANDING		DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
		NO. OF ALUMINIUM WIRES	INDIVIDUAL WIRE DIAMETER					@ 75°C	@ 85°C
	(MM ²)	(NO.)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
10-A4-7	10.61	7	1.39	4.17	28.96	2.65	2.8630	62	73
16-A4-7	16.97	7	1.76	5.28	46.34	4.24	1.7900	82	97
25-A4-7	26.52	7	2.20	6.60	72.41	6.63	1.1450	107	128
40-A4-7	42.43	7	2.78	8.34	115.9	10.6	0.7159	142	170
63-A4-7	66.83	7	3.49	10.47	182.5	16.7	0.4545	186	225
100-A4-19	106.1	19	2.67	13.35	291.1	26.5	0.2877	244	297
125-A4-19	132.6	19	2.98	14.90	363.8	33.2	0.2302	278	340
160-A4-19	169.7	19	3.37	16.85	465.7	42.4	0.1798	321	395
200-A4-19	212.2	19	3.77	18.85	582.1	53.1	0.1439	365	452
250-A4-19	265.2	19	4.22	21.10	727.6	66.3	0.1151	415	517
315-A4-37	334.2	37	3.39	23.73	919.0	83.6	0.09156	473	593
400-A4-37	424.3	37	3.82	26.74	1167.0	106.0	0.07210	540	684
450-A4-37	277.4	37	4.05	28.35	1313.0	119.0	0.06409	577	733
500-A4-37	530.4	37	4.27	29.89	1459.0	133.0	0.05768	611	779
560-A4-37	594.1	37	4.52	31.64	1634.0	149.0	0.05150	649	832
630-A4-61	668.3	61	3.74	33.66	1841.0	167.0	0.04585	691	891
710-A4-61	753.20	61	3.97	35.73	2074.0	188.0	0.04068	736	954
800-A4-61	848.70	61	4.21	37.89	2337.0	212.0	0.03610	782	1019
900-A4-61	954.80	61	4.46	40.14	2629.0	239.0	0.03209	829	1088
1000-A4-91	1062.00	91	3.85	42.35	2928.0	266.0	0.02888	873	1152
1120-A4-91	1188.00	91	4.08	44.88	3276.0	297.0	0.02582	920	1222
1250-A4-91	1326.00	91	4.31	47.41	3656.0	332.0	0.02313	967	1293
1400-A4-91	1485.00	91	4.56	50.16	4095.0	371.0	0.02065	1015	1367
1500-A4-91	1591.00	91	4.72	51.92	4387.0	398.0	0.01928	1044	1413

ALL ALUMINUM ALLOY CONDUCTOR (AAAC) – CAN/CSA-C61089-11, Type-A2



(Properties for A2 Conductors Sizes Equivalent to Canadian A1 Sizes)

CODE WORD	CONDUCTOR NAME	SECTIONAL AREA	STRANDING		DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
			NO. OF ALUMINIUM WIRES	INDIVIDUAL WIRE DIAMETER					@ 75°C	@ 85°C
		(MM ²)	(NO.)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
13-A2-7	Fredericton	15.30	7	1.67	5.01	41.78	4.67	2.1540	74	88
21-A2-7	Whitehorse	24.34	7	2.10	6.30	66.46	7.42	1.3540	98	116
27-A2-7	-	30.69	7	2.36	7.08	83.79	9.36	1.0740	112	134
34-A2-7	Halifax	38.70	7	2.65	7.95	105.7	11.8	0.8516	129	154
42-A2-7	Regina	48.84	7	2.98	8.94	133.3	14.9	0.6752	148	178
54-A2-7	Montreal	61.59	7	3.35	10.05	168.1	18.8	0.5351	170	205
67-A2-7	Winnipeg	77.62	7	3.76	11.28	211.9	23.7	0.4246	195	236
85-A2-7	Toronto	97.86	7	4.22	12.66	267.2	29.9	0.3368	224	272
107-A2-7	Vancouver	123.4	7	4.74	14.22	336.9	37.6	0.2671	256	313
127-A2-19	-	145.8	19	3.13	15.65	400.0	44.5	0.2271	282	346
135-A2-7	-	155.6	7	5.32	15.96	424.8	47.5	0.2118	293	360
135-A2-19	Calgary	155.6	19	3.23	16.15	426.9	47.5	0.2128	293	360
152-A2-19	-	175.0	19	3.42	17.10	480.0	53.4	0.1893	314	386
170-A2-19	Edmonton	196.2	19	3.63	18.15	538.2	59.8	0.1688	335	414
177-A2-19	-	204.1	19	3.70	18.50	560.0	62.3	0.1622	343	424
201-A2-19	Brockville	231.8	19	3.94	19.70	636.0	70.7	0.1429	369	458
203-A2-19	-	233.3	19	3.95	19.75	640.0	71.2	0.1420	370	460
228-A2-19	-	262.4	19	4.19	20.95	720.0	80.0	0.1262	396	493
242-A2-19	Quebec	278.2	19	4.32	21.60	763.2	84.9	0.1190	410	511
253-A2-19	-	291.6	19	4.42	22.10	800.0	88.9	0.1136	421	526
279-A2-37	-	320.8	37	3.32	23.24	882.1	97.8	0.1035	444	556
282-A2-19	-	324.5	19	4.66	23.30	890.4	99.0	0.1020	447	560
304-A2-37	-	349.9	37	3.47	24.29	962.3	107.0	0.09486	466	586
322-A2-37	-	370.9	37	3.57	24.99	1020.0	113.0	0.08949	482	606
329-A2-37	-	379.1	37	3.61	25.27	1042.0	116.0	0.08757	487	614
355-A2-37	-	408.2	37	3.75	26.25	1123.0	125.0	0.08131	508	642
363-A2-37	-	417.3	37	3.79	26.53	1147.0	127.0	0.07955	514	650

ALL ALUMINUM ALLOY CONDUCTOR (AAAC) – CAN/CSA-C61089-11, Type-A2



(Properties for A2 Conductors Sizes Equivalent to Canadian A1 Sizes)

CODE WORD	CONDUCTOR NAME	SECTIONAL AREA	STRANDING		DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
			NO. OF ALUMINIUM WIRES	INDIVIDUAL WIRE DIAMETER					@ 75°C	@ 85°C
		(MM ²)	(NO.)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
380-A2-37	-	437.4	37	3.88	27.16	1203.0	133.0	0.07589	528	669
403-A2-37	-	463.6	37	3.99	27.93	1275.0	141.0	0.07160	545	692
405-A2-37	-	466.6	37	4.01	28.07	1283.0	142.0	0.07115	547	695
443-A2-37	-	510.0	37	4.19	29.33	1403.0	156.0	0.06509	575	732
456-A2-37	-	524.9	37	4.25	29.75	1443.0	160.0	0.06324	584	745
470-A2-37	-	540.7	37	4.31	30.17	1487.0	165.0	0.06139	593	758
483-A2-37	-	556.4	37	4.38	30.66	1530.0	170.0	0.05966	603	771
507-A2-37	-	583.2	37	4.48	31.36	1604.0	178.0	0.05692	618	792
524-A2-37	-	602.7	37	4.55	31.85	1657.0	184.0	0.05507	629	807
557-A2-61	-	641.5	61	3.66	32.94	1767.0	196.0	0.05182	650	837
564-A2-61	-	649.1	61	3.68	33.12	1788.0	198.0	0.05121	654	842
604-A2-61	-	695.5	61	3.81	34.29	1915.0	212.0	0.04780	679	876
608-A2-61	-	699.8	61	3.82	34.38	1927.0	213.0	0.04750	681	879
645-A2-61	-	741.8	61	3.93	35.37	2043.0	226.0	0.04481	702	909
659-A2-61	-	758.1	61	3.98	35.82	2088.0	231.0	0.04385	710	921
685-A2-61	-	788.2	61	4.06	36.54	2171.0	240.0	0.04218	725	941
709-A2-61	-	816.5	61	4.13	37.17	2249.0	249.0	0.04072	738	960
725-A2-61	-	834.5	61	4.17	37.53	2298.0	255.0	0.03983	747	972
760-A2-61	-	874.8	61	4.27	38.43	2409.0	267.0	0.03800	765	998
765-A2-61	-	880.9	61	4.29	38.61	2426.0	269.0	0.03774	768	1002
806-A2-61	-	927.3	61	4.40	39.60	2554.0	283.0	0.03585	788	1031
811-A2-61	-	933.1	61	4.41	39.69	2570.0	285.0	0.03563	790	1035
861-A2-61	-	991.4	61	4.55	40.95	2730.0	302.0	0.03353	815	1070
912-A2-91	-	1050.0	91	3.83	42.13	2894.0	320.0	0.03170	837	1104
1013-A2-91	-	1166.0	91	4.04	44.44	3216.0	356.0	0.02853	881	1168
1140-A2-91	-	1312.0	91	4.28	47.08	3618.0	400.0	0.02536	930	1242

ALL ALUMINUM ALLOY CONDUCTOR (AAAC) – CAN/CSA-C61089-11, Type-A2



(Properties for A2 Conductors Sizes Equivalent to Canadian A1 Sizes)

CODE WORD	CONDUCTOR NAME	SECTIONAL AREA	STRANDING		DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
			NO. OF ALUMINIUM WIRES	INDIVIDUAL WIRE DIAMETER					@ 75°C	@ 85°C
		(MM ²)	(NO.)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
1234-A2-91	-	1420.0	91	4.46	49.06	3916.0	433.0	0.02343	964	1294
1267-A2-91	-	1458.0	91	4.52	49.72	4020.0	445.0	0.02283	975	1311
1393-A2-91	-	1604.0	91	4.74	52.14	4422.0	489.0	0.02075	1015	1374
1520-A2-91	-	1750.0	91	4.95	54.45	4824.0	534.0	0.01902	1051	1432
1524-A2-91	-	1754.0	91	4.95	54.45	4836.0	535.0	0.01897	1052	1434
1773-A2-91	-	2041.0	91	5.34	58.74	5628.0	623.0	0.01630	1112	1534
1844-A2-91	-	2123.0	91	5.45	59.95	5853.0	648.0	0.01568	1127	1559

ALL ALUMINUM ALLOY CONDUCTOR (AAAC) – CAN/CSA-C61089-11, Type-A4



(Properties for A4 Conductors Sizes Equivalent to Canadian A1 Sizes)

CODE WORD	CONDUCTOR NAME	SECTIONAL AREA	STRANDING		DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
			NO. OF ALUMINIUM WIRES	INDIVIDUAL WIRE DIAMETER					@ 75°C	@ 85°C
13-A4-7	Fredericton	(MM ²)	(NO.)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
13-A4-7	Fredericton	14.11	7	1.60	4.80	38.51	3.53	2.1540	73	87
21-A4-7	Whitehorse	22.44	7	2.02	6.06	61.26	5.61	1.3540	97	115
27-A4-7	-	28.29	7	2.27	6.81	77.23	7.07	1.0740	111	133
34-A4-7	Halifax	35.67	7	2.55	7.65	97.40	8.92	0.8516	128	153
42-A4-7	Regina	44.99	7	2.86	8.58	122.8	11.3	0.6752	147	176
54-A4-7	Montreal	56.77	7	3.21	9.63	155.0	14.2	0.5351	169	203
67-A4-7	Winnipeg	71.55	7	3.61	10.83	195.3	17.9	0.4246	194	234
85-A4-7	Toronto	90.2	7	4.05	12.15	246.3	22.6	0.3368	222	269
107-A4-7	Vancouver	113.7	7	4.55	13.65	310.6	28.4	0.2671	254	310
127-A4-19	-	134.4	19	3.00	15.00	368.7	33.6	0.2271	280	343
135-A4-7	-	143.4	7	5.11	15.33	391.6	35.9	0.2118	291	357
135-A4-19	Calgary	143.4	19	3.10	15.50	393.5	35.9	0.2128	291	357
152-A4-19	-	161.3	19	3.29	16.45	442.4	40.3	0.1893	312	383
170-A4-19	Edmonton	180.8	19	3.48	17.40	496.1	45.2	0.1688	333	411
177-A4-19	-	188.1	19	3.55	17.75	516.2	47.0	0.1622	341	421
201-A4-19	Brockville	213.7	19	3.78	18.90	586.2	53.4	0.1429	367	454
203-A4-19	-	215.0	19	3.80	19.00	589.9	53.8	0.1420	368	456
228-A4-19	-	241.9	19	4.03	20.15	663.7	60.5	0.1262	394	489
242-A4-19	Quebec	256.4	19	4.15	20.75	703.5	64.1	0.1190	407	507
253-A4-19	-	268.8	19	4.24	21.20	737.4	67.2	0.1136	418	521
279-A4-37	-	295.7	37	3.19	22.33	813.0	73.9	0.1035	441	552
282-A4-19	-	299.1	19	4.48	22.40	820.7	74.8	0.1020	445	556
304-A4-37	-	322.5	37	3.33	23.31	887.0	80.6	0.09486	463	581
322-A4-37	-	341.9	37	3.43	24.01	940.2	85.5	0.08949	479	602
329-A4-37	-	349.4	37	3.47	24.29	960.9	87.4	0.08757	485	609
355-A4-37	-	376.3	37	3.60	25.20	1035.0	94.1	0.08131	505	637
363-A4-37	-	384.6	37	3.64	25.48	1058.0	96.2	0.07955	512	645
380-A4-37	-	403.2	37	3.72	26.04	1109.0	101.0	0.07589	525	663
403-A4-37	-	427.4	37	3.83	26.81	1175.0	107.0	0.07160	542	686
405-A4-37	-	430.0	37	3.85	26.95	1183.0	108.0	0.07115	544	689
443-A4-37	-	470.1	37	4.02	28.14	1293.0	118.0	0.06509	572	726
456-A4-37	-	483.8	37	4.08	28.56	1330.0	121.0	0.06324	581	739
470-A4-37	-	498.4	37	4.14	28.98	1371.0	125.0	0.06139	590	752

ALL ALUMINUM ALLOY CONDUCTOR (AAAC) – CAN/CSA-C61089-11, Type-A4



(Properties for A4 Conductors Sizes Equivalent to Canadian A1 Sizes)

CODE WORD	CONDUCTOR NAME	SECTIONAL AREA	STRANDING		DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
			NO. OF ALUMINIUM WIRES	INDIVIDUAL WIRE DIAMETER					@ 75°C	@ 85°C
483-A4-37	-	(MM ²)	(NO.)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
483-A4-37	-	512.8	37	4.20	29.40	1410.0	128.0	0.05966	600	764
507-A4-37	-	537.6	37	4.30	30.10	1478.0	134.0	0.05692	615	786
524-A4-37	-	555.6	37	4.37	30.59	1528.0	139.0	0.05507	626	801
557-A4-61	-	591.3	61	3.51	31.59	1628.0	148.0	0.05182	647	830
564-A4-61	-	598.3	61	3.53	31.77	1648.0	150.0	0.05121	651	835
604-A4-61	-	641.0	61	3.66	32.94	1765.0	160.0	0.04780	676	870
608-A4-61	-	645.1	61	3.67	33.03	1777.0	161.0	0.04750	678	873
645-A4-61	-	683.8	61	3.78	34.02	1883.0	171.0	0.04481	699	902
659-A4-61	-	698.8	61	3.82	34.38	1925.0	175.0	0.04385	707	914
685-A4-61	-	726.5	61	3.89	35.00	2001.0	182.0	0.04218	697	881
709-A4-61	-	752.6	61	3.96	35.64	2073.0	188.0	0.04072	735	953
725-A4-61	-	769.2	61	4.01	36.09	2118.0	192.0	0.03983	744	965
760-A4-61	-	806.3	61	4.10	36.90	2221.0	202.0	0.03800	762	991
765-A4-61	-	812.0	61	4.12	37.08	2236.0	203.0	0.03774	765	995
806-A4-61	-	854.7	61	4.22	37.98	2354.0	214.0	0.03585	785	1023
811-A4-61	-	860.1	61	4.24	38.16	2369.0	215.0	0.03563	787	1027
861-A4-61	-	913.8	61	4.37	39.33	2517.0	229.0	0.03353	812	1062
912-A4-91	-	967.6	91	3.68	40.48	2668.0	242.0	0.03170	835	1095
1013-A4-91	-	1075.0	91	3.88	42.68	2964.0	269.0	0.02853	878	1160
1140-A4-91	-	1209.0	91	4.11	45.21	3335.0	302.0	0.02536	928	1233
1234-A4-91	-	1309.0	91	4.28	47.08	3610.0	327.0	0.02343	962	1285
1267-A4-91	-	1344.0	91	4.34	47.74	3705.0	336.0	0.02283	973	1302
1393-A4-91	-	1478.0	91	4.55	50.05	4076.0	370.0	0.02075	1013	1364
1520-A4-91	-	1613.0	91	4.75	52.25	4446.0	403.0	0.01902	1049	1422
1524-A4-91	-	1617.0	91	4.76	52.36	4457.0	404.0	0.01897	1050	1424
1773-A4-91	-	1881.0	91	5.13	56.43	5187.0	470.0	0.01630	1111	1523
1844-A4-91	-	1957.0	91	5.23	57.53	5395.0	489.0	0.01568	1126	1549

ALL ALUMINUM ALLOY CONDUCTOR (AAAC) – ABNT NBR 10298



SECTIONAL AREA	STRANDING		DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
	NO. OF ALUMINIUM WIRES	INDIVIDUAL WIRE DIAMETER					@ 75°C	@ 85°C
(MM ²)	(NO.)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
15.52	7	1.68	5.04	42.90	4.93	2.1588	74	88
24.71	7	2.12	6.36	67.80	7.85	1.3557	98	116
39.19	7	2.67	8.01	107.50	12.45	0.8547	129	154
62.44	7	3.37	10.11	171.30	19.00	0.5365	170	205
78.55	7	3.78	11.34	215.50	23.91	0.4264	195	236
99.30	7	4.25	12.75	272.50	30.22	0.3373	224	272
125.09	7	4.77	14.31	343.20	38.07	0.2678	256	313
158.59	19	3.26	16.30	435.10	46.75	0.2112	295	362
199.90	19	3.66	18.30	548.50	58.93	0.1676	337	417
236.38	19	3.98	19.90	648.60	69.69	0.1417	371	461
283.67	19	4.36	21.80	778.30	83.63	0.1181	412	514
331.04	19	4.71	23.55	908.30	97.59	0.1012	449	564
374.53	37	3.59	25.13	1027.60	108.00	0.0894	482	607
469.62	37	4.02	28.14	1288.50	135.50	0.0713	547	695
547.34	61	3.38	30.42	1501.80	156.20	0.0612	595	760
590.25	61	3.51	31.59	1619.50	168.40	0.0568	619	794
638.27	61	3.65	32.85	1751.30	182.10	0.0525	646	831
684.55	61	3.78	34.02	1878.30	195.30	0.0489	671	866
728.70	61	3.90	35.10	1999.40	207.90	0.0460	693	897
33.54	7	2.47	7.41	92.00	10.66	0.9987	118	140
53.52	7	3.12	9.36	146.80	17.01	0.6259	155	187
67.35	7	3.50	10.50	184.80	20.50	0.4974	178	215
84.91	7	3.93	11.79	233.00	25.84	0.3945	204	247
107.41	7	4.42	13.26	294.70	32.69	0.3119	234	285
126.37	19	2.91	14.55	346.70	38.90	0.2651	258	316
151.85	19	3.19	15.95	416.70	46.75	0.2206	287	353
177.62	19	3.45	17.25	487.30	52.36	0.1886	315	388

ALL ALUMINUM ALLOY CONDUCTOR (AAAC) – ABNT NBR 10298



SECTIONAL AREA	STRANDING		DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
	NO. OF ALUMINIUM WIRES	INDIVIDUAL WIRE DIAMETER					@ 75°C	@ 85°C
(MM ²)	(NO.)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
203.19	19	3.69	18.45	557.50	59.90	0.1649	340	421
228.14	19	3.91	19.55	626.00	67.26	0.1468	364	451
253.30	19	4.12	20.60	695.00	74.68	0.1322	386	480
279.26	37	3.10	21.70	766.20	84.12	0.1200	408	510
303.18	37	3.23	22.61	831.90	91.32	0.1105	428	535
330.03	37	3.37	23.59	905.50	95.20	0.1015	449	563
353.95	37	3.49	24.43	971.20	102.10	0.0946	467	587
380.81	37	3.62	25.34	1044.90	109.90	0.0880	486	613
404.31	37	3.73	26.11	1109.30	116.60	0.0829	503	635
455.70	37	3.96	27.72	1250.40	131.50	0.0735	538	682
507.74	37	4.18	29.26	1393.10	146.50	0.0660	571	727
631.30	61	3.63	32.67	1732.10	180.10	0.0531	642	825
758.90	61	3.98	35.82	2082.30	216.50	0.0441	709	918
885.84	61	4.30	38.70	2430.60	252.70	0.0378	767	1002

ALL ALUMINUM ALLOY CONDUCTOR (AAAC) – IS 398 PART-IV



ACTUAL AREA	STRANDING		DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
	NO. OF ALUMINIUM WIRES	INDIVIDUAL WIRE DIAMETER					@ 75°C	@ 85°C
(MM ²)	(NO.)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
15	3	2.50	5.39	40.15	4.33	2.3040	73	86
22	7	2.00	6.00	60.16	6.45	1.5410	91	108
34	7	2.50	7.50	94.00	10.11	0.9900	118	141
55	7	3.15	9.45	149.20	16.03	0.6210	156	188
80	7	3.81	11.43	218.26	23.41	0.4250	195	237
100	7	4.26	12.78	272.86	29.26	0.3390	223	271
125	19	2.89	14.45	342.51	36.64	0.2735	254	310
148	19	3.15	15.75	406.91	43.50	0.2290	281	345
173	19	3.40	17.00	474.02	50.54	0.1969	307	378
200	19	3.66	18.30	549.40	58.66	0.1710	334	412
232	19	3.94	19.70	636.67	68.05	0.1471	364	451
288	37	3.15	22.05	794.05	84.71	0.1182	412	515
346	37	3.45	24.15	952.56	101.58	0.0984	457	575
400	37	3.71	25.97	1101.63	117.40	0.0829	503	635
465	37	4.00	28.00	1280.50	136.38	0.0734	539	684
525	61	3.31	29.79	1448.39	146.03	0.0651	576	734
570	61	3.45	31.05	1573.71	158.66	0.0598	603	772
604	61	3.55	31.95	1666.00	167.99	0.0568	620	796
642	61	3.66	32.94	1771.36	178.43	0.0534	641	825
695	61	3.81	34.29	1919.13	193.25	0.0492	670	864
767	61	4.00	36.00	2115.54	213.01	0.0446	705	914

ALL ALUMINUM ALLOY CONDUCTOR (AAAC) – AS 1531



CODE NAME	SECTIONAL AREA	STRANDING		DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
		NO. OF ALUMINIUM WIRES	INDIVIDUAL WIRE DIAMETER					@ 75°C	@ 85°C
	(MM ²)	(NO.)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
Diamond	34.36	7	2.50	7.50	94.3	9.64	0.9670	120	143
Dolomite	41.58	7	2.75	8.25	113.0	11.60	0.7990	134	161
Emerald	49.48	7	3.00	9.00	135.0	13.90	0.6710	149	179
Garnet	77.31	7	3.75	11.25	211.0	21.70	0.4300	194	234
Jade	111.33	7	4.50	13.50	304.0	31.20	0.2980	240	293
Jasper	124.00	7	4.75	14.25	339.0	34.80	0.2680	256	313
Opal	157.60	19	3.25	16.25	433.0	44.20	0.2120	294	361
Patronite	182.80	19	3.50	17.50	503.0	51.30	0.1830	320	395
Pearl	209.80	19	3.75	18.75	576.0	58.80	0.1590	347	430
Ruby	261.60	37	3.00	21.00	721.0	73.50	0.1280	393	490
Ruthenium	307.00	37	3.25	22.75	845.0	86.10	0.1090	431	540
Rutile	336.70	19	4.75	23.75	924.0	94.40	0.0991	455	571
Sapphire	408.50	37	3.75	26.25	1120.0	115.0	0.0819	506	640
Spinel	506.10	61	3.25	29.25	1400.0	135.0	0.0662	570	726
Tantalum	586.90	61	3.50	31.50	1620.0	156.0	0.0572	617	791
Topaz	673.40	61	3.75	33.75	1860.0	179.0	0.0498	665	857

ALL ALUMINUM ALLOY CONDUCTOR (AAAC) – IEC 61089- Type A2



CODE NUMBER	SECTIONAL AREA	STRANDING		DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
		NO. OF ALUMINIUM WIRES	INDIVIDUAL WIRE DIAMETER					@ 75°C	@ 85°C
	(MM ²)	(NO.)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
16	18.4	7	1.83	5.49	50.40	5.43	1.7896	83	98
25	28.8	7	2.29	6.87	78.70	8.49	1.1453	108	129
40	46.0	7	2.89	8.67	125.90	13.58	0.7158	143	172
63	72.5	7	3.63	10.89	198.30	21.39	0.4545	187	226
100	115	19	2.78	13.90	316.30	33.95	0.2877	246	300
125	144	19	3.10	15.50	395.40	42.44	0.2302	280	343
160	184	19	3.51	17.55	506.10	54.32	0.1798	323	399
200	230	19	3.93	19.65	632.70	67.91	0.1439	368	456
250	288	19	4.39	21.95	790.80	84.88	0.1151	417	521
315	363	37	3.53	24.71	998.90	106.95	0.0916	475	598
400	460	37	3.98	27.86	1268.40	135.81	0.0721	543	689
450	518	37	4.22	29.54	1426.90	152.79	0.0641	579	739
500	575	37	4.45	31.15	1585.50	169.76	0.0577	614	786
560	645	61	3.67	33.03	1778.40	190.14	0.0516	652	839
630	725	61	3.89	35.01	2000.70	213.90	0.0458	694	898
710	817	61	4.13	37.17	2254.80	241.07	0.0407	738	961
800	921	61	4.38	39.42	2540.80	271.62	0.0361	785	1027
900	1036	91	3.81	41.91	2861.10	305.58	0.0321	832	1096
1000	1151	91	4.01	44.11	3179.00	339.53	0.0289	876	1160
1120	1289	91	4.25	46.75	3560.50	380.27	0.0258	923	1232
1250	1439	91	4.49	49.39	3973.70	424.41	0.0231	970	1303

ALL ALUMINUM ALLOY CONDUCTOR (AAAC) – IEC 61089- Type A3



CODE NUMBER	SECTIONAL AREA	STRANDING		DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
		NO. OF ALUMINUM WIRES	INDIVIDUAL WIRE DIAMETER					@ 75°C	@ 85°C
	(MM ²)	(NO.)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
16	18.6	7	1.84	5.52	50.80	6.04	1.7896	83	98
25	29.0	7	2.30	6.90	79.50	9.44	1.1453	108	129
40	46.5	7	2.91	8.73	127.10	15.10	0.7158	143	172
63	73.2	7	3.65	10.95	200.20	23.06	0.4545	188	227
100	116	19	2.79	13.95	319.30	37.76	0.2877	246	300
125	145	19	3.12	15.60	399.20	47.20	0.2302	280	344
160	186	19	3.53	17.65	511.00	58.56	0.1798	323	399
200	232	19	3.95	19.75	638.70	73.20	0.1439	368	457
250	290	19	4.41	22.05	798.40	91.50	0.1151	418	522
315	366	37	3.55	24.85	1008.40	115.29	0.0916	476	599
400	465	37	4.00	28.00	1280.50	146.40	0.0721	544	690
450	523	37	4.24	29.68	1440.50	164.70	0.0641	580	739
500	581	37	4.47	31.29	1600.60	183.00	0.0577	614	786
560	651	61	3.69	33.21	1795.30	204.96	0.0516	652	840
630	732	61	3.91	35.19	2019.80	230.58	0.0458	695	899
710	825	61	4.15	37.35	2276.20	259.86	0.0407	739	961
800	930	61	4.40	39.60	2564.80	292.80	0.0361	785	1028
900	1046	91	3.83	42.13	2888.30	329.40	0.0321	833	1097
1000	1162	91	4.03	44.33	3209.30	366.00	0.0289	876	1161
1120	1301	91	4.27	46.97	3594.40	409.92	0.0258	923	1233

ALL ALUMINUM ALLOY CONDUCTOR (AAAC) – EN 50182-Type-AL2



(Used in Finland)

CODE	OLD CODE	SECTIONAL AREA	STRANDING		DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
			NO. OF ALUMINIUM WIRES	INDIVIDUAL WIRE DIAMETER					@ 75°C	@ 85°C
		(MM ²)	(NO.)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
178-AL2	AAAC 178	178	19	3.45	17.3	487.6	57.73	0.1880	315	388
346-AL2	AAAC 346	346	37	3.45	24.2	952.8	112.41	0.0969	461	579
638-AL2	AAAC 638	638	61	3.65	32.9	1764.0	201.06	0.0527	645	829

ALL ALUMINUM ALLOY CONDUCTOR (AAAC) – EN 50182-Type-AL2

(Used in Spain)

CODE	OLD CODE	SECTIONAL AREA	STRANDING		DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
			NO. OF ALUMINIUM WIRES	INDIVIDUAL WIRE DIAMETER					@ 75°C	@ 85°C
		(MM ²)	(NO.)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
28-AL2	D 28	27.8	7	2.25	6.75	76.0	9.05	1.1930	106	126
43-AL2	D 40	43.1	7	2.80	8.40	117.7	14.01	0.7704	137	164
55-AL2	D 56	54.6	7	3.15	9.45	148.9	17.73	0.6087	158	190
76-AL2	D 80	75.5	19	2.25	11.3	207.4	24.55	0.4420	191	231
117-AL2	D 110	117.0	19	2.80	14.0	321.2	38.02	0.2854	247	302
148-AL2	D 145	148.1	19	3.15	15.8	406.5	48.12	0.2255	284	348
188-AL2	D 180	188.1	19	3.55	17.8	516.3	59.24	0.1776	326	402
279-AL2	D 280	279.3	37	3.10	21.7	769.3	90.76	0.1200	408	510
381-AL2	D 400	381.0	61	2.82	25.4	1053.0	123.82	0.0882	486	613
454-AL2	D 450	454.5	61	3.08	27.7	1256.1	147.71	0.0740	536	680
547-AL2	D 550	547.3	61	3.38	30.4	1512.7	177.88	0.0614	594	759
638-AL2	D 630	638.3	61	3.65	32.9	1764.0	201.06	0.0527	645	830

ALL ALUMINUM ALLOY CONDUCTOR (AAAC) – EN 50182-Type-AL3



(Used in Austria)

CODE	OLD CODE	SECTIONAL AREA	STRANDING		DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
			NO. OF ALUMINIUM WIRES	INDIVIDUAL WIRE DIAMETER					@ 75°C	@ 85°C
		(MM ²)	(NO.)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
24-AL3	25	24.25	7	2.10	6.30	66.2	7.15	1.3566	98	116
34-AL3	35	34.36	7	2.50	7.50	93.8	10.14	0.9572	120	144
49-AL3	50	49.48	7	3.00	9.00	135.1	14.60	0.6647	150	180
66-AL3	70	65.81	19	2.10	10.5	180.7	19.41	0.5026	177	214
93-AL3	95	93.27	19	2.50	12.5	256.0	27.51	0.3546	217	264
117-AL3	120	116.99	19	2.80	14.0	321.2	34.51	0.2827	248	303
147-AL3	150	147.12	37	2.25	15.8	405.3	43.40	0.2256	284	348
182-AL3	185	181.62	37	2.50	17.5	500.3	53.58	0.1827	320	395
243-AL3	240	242.54	61	2.25	20.3	670.3	71.55	0.1373	378	470
299-AL3	300	299.43	61	2.50	22.5	827.5	88.33	0.1112	426	533
400-AL3	400	400.14	61	2.89	26.0	1105.9	118.04	0.0832	502	634
452-AL3	450	451.54	61	3.07	27.6	1247.9	133.20	0.0737	537	681
500-AL3	500	499.83	61	3.23	29.1	1381.4	147.45	0.0666	568	723
626-AL3	625	626.20	91	2.96	32.6	1737.7	184.73	0.0534	640	823
802-AL3	800	802.09	91	3.35	36.9	2225.8	236.62	0.0417	730	948
1000-AL3	1000	999.71	91	3.74	41.1	2774.3	294.91	0.0334	868	1141

ALL ALUMINUM ALLOY CONDUCTOR (AAAC) – EN 50182-Type-AL3



(Used in Germany)

CODE	OLD CODE	SECTIONAL AREA	STRANDING		DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
			NO. OF ALUMINIUM WIRES	INDIVIDUAL WIRE DIAMETER					@ 75°C	@ 85°C
		(MM ²)	(NO.)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
16-AL3	16	15.9	7	1.70	5.10	43.4	4.69	2.0701	76	90
24-AL3	25	24.2	7	2.10	6.30	66.2	7.15	1.3566	98	116
34-AL3	35	34.4	7	2.50	7.50	93.8	10.14	0.9572	120	144
49-AL3	50	49.5	7	3.00	9.00	135.1	14.60	0.6647	150	180
48-AL3	50	48.3	19	1.80	9.00	132.7	14.26	0.6841	147	177
66-AL3	70	65.8	19	2.10	10.5	180.7	19.41	0.5026	177	214
93-AL3	95	93.3	19	2.50	12.5	256.0	27.51	0.3546	217	264
117-AL3	120	117.0	19	2.80	14.0	321.2	34.51	0.2827	248	303
147-AL3	150	147.1	37	2.25	15.8	405.3	43.40	0.2256	284	348
182-AL3	185	181.6	37	2.50	17.5	500.3	53.58	0.1827	320	395
243-AL3	240	242.5	61	2.25	20.3	670.3	71.55	0.1373	378	470
299-AL3	300	299.4	61	2.50	22.5	827.5	88.33	0.1112	426	533
400-AL3	400	400.1	61	2.89	26.0	1105.9	118.04	0.0832	502	634
500-AL3	500	499.8	61	3.23	29.1	1381.4	147.45	0.0666	568	723
626-AL3	625	626.2	91	2.96	32.6	1737.7	184.37	0.0534	640	823
802-AL3	800	802.1	91	3.35	36.9	2225.8	236.62	0.0417	730	948
1000-AL3	1000	999.7	91	3.74	41.1	2774.3	294.91	0.0334	816	1073

ALL ALUMINUM ALLOY CONDUCTOR (AAAC) – EN 50182-Type-AL3



(Used in Switzerland)

CODE	OLD CODE	SECTIONAL AREA	STRANDING		DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
			NO. OF ALUMINIUM WIRES	INDIVIDUAL WIRE DIAMETER					@ 75°C	@ 85°C
		(MM ²)	(NO.)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
16-AL3	16	15.9	7	1.70	5.10	43.4	4.69	2.0701	76	90
25-AL3	25	25.2	7	2.14	6.42	68.7	7.43	1.3064	100	119
35-AL3	35	34.9	7	2.52	7.56	95.3	10.30	0.9421	122	145
50-AL3	50	50.1	7	3.02	9.06	136.9	14.79	0.6660	150	180
50-AL3	50	50.0	19	1.83	9.15	137.2	14.74	0.6619	150	181
70-AL3	70	70.3	19	2.17	10.9	192.9	20.73	0.4707	184	223
95-AL3	95	94.8	19	2.52	12.6	260.2	27.96	0.3490	219	267
120-AL3	120	120.4	19	2.84	14.2	330.4	35.51	0.2748	253	308
150-AL3	150	149.7	37	2.27	15.9	412.5	44.17	0.2217	286	352
185-AL3	185	184.5	37	2.52	17.6	508.4	54.44	0.1799	323	399
239-AL3	240	239.4	37	2.87	20.1	659.4	70.61	0.1387	376	467
301-AL3	300	301.3	37	3.22	22.5	830.0	88.88	0.1102	428	536
299-AL3	300	299.4	61	2.50	22.5	827.5	88.33	0.1112	426	533
403-AL3	400	402.9	61	2.90	26.1	1113.6	118.86	0.0826	504	636
497-AL3	500	496.7	61	3.22	29.0	1372.9	146.54	0.0670	566	720
551-AL3	550	550.6	61	3.39	30.5	1521.6	162.42	0.0605	598	765
548-AL3	550	548.4	91	2.77	30.5	1521.8	161.78	0.0610	596	762
600-AL3	600	600.4	61	3.54	31.9	1659.3	177.11	0.0555	627	804
601-AL3	600	601.1	91	2.90	31.9	1668.0	177.32	0.0556	626	804
802-AL3	800	802.1	91	3.35	36.9	2225.8	236.62	0.0417	730	948

ALL ALUMINUM ALLOY CONDUCTOR (AAAC) – EN 50182-Type-AL3



(Used in United Kingdom)

CODE	OLD CODE	SECTIONAL AREA	STRANDING		DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
			NO. OF ALUMINIUM WIRES	INDIVIDUAL WIRE DIAMETER					@ 75°C	@ 85°C
		(MM ²)	(NO.)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
19-AL3	BOX	18.8	7	1.85	5.55	51.4	5.55	1.7480	84	99
24-AL3	ACACIA	23.8	7	2.08	6.24	64.9	7.02	1.3828	97	115
30-AL3	ALMOND	30.1	7	2.34	7.02	82.2	8.88	1.0926	111	133
35-AL3	CEDAR	35.5	7	2.54	7.62	96.8	10.46	0.9273	123	147
42-AL3	DEODAR	42.2	7	2.77	8.31	115.2	12.44	0.7797	136	163
48-AL3	FIR	47.8	7	2.95	8.85	130.6	14.11	0.6875	147	176
60-AL3	HAZEL	59.9	7	3.30	9.90	163.4	17.66	0.5494	167	202
72-AL3	PINE	71.6	7	3.61	10.8	195.6	21.14	0.4591	186	225
84-AL3	HOLLY	84.1	7	3.91	11.7	229.5	24.79	0.3913	205	248
90-AL3	WILLOW	89.7	7	4.04	12.1	245.0	26.47	0.3665	213	258
119-AL3	OAK	118.9	7	4.65	14.0	324.5	35.07	0.2767	251	306
151-AL3	MULBERRY	150.9	19	3.18	15.9	414.3	44.52	0.2192	288	354
181-AL3	ASH	180.7	19	3.48	17.4	496.1	53.31	0.1830	320	394
211-AL3	ELM	211.0	19	3.76	18.8	579.2	62.24	0.1568	350	433
239-AL3	POPLAR	239.4	37	2.87	20.1	659.4	70.61	0.1387	376	467
303-AL3	SYCAMORE	303.2	37	3.23	22.6	835.2	89.40	0.1095	430	538
362-AL3	UPAS	362.1	37	3.53	24.7	997.5	106.82	0.0917	475	598
479-AL3	YEW	479.0	37	4.06	28.4	1319.6	141.31	0.0693	555	706
498-AL3	TOTARA	498.1	37	4.14	29.0	1372.1	146.93	0.0666	567	722
587-AL3	RUBUS	586.9	61	3.50	31.5	1622.0	173.13	0.0567	620	794
659-AL3	SORBUS	659.4	61	3.71	33.4	1822.5	194.53	0.0505	659	849
821-AL3	ARAUCARIA	821.1	61	4.14	37.3	2269.4	242.24	0.0406	740	962
996-AL3	REDWOOD	996.2	61	4.56	41.0	2753.2	293.88	0.0334	816	1072

ALL ALUMINUM ALLOY CONDUCTOR (AAAC) – EN 50182-Type-AL3



(Used in Italy)

CODE	OLD CODE	SECTIONAL AREA	STRANDING		DIAMETER OF COMPLETE CONDUCTOR	WEIGHT	RATED STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
			NO. OF ALUMINIUM WIRES	INDIVIDUAL WIRE DIAMETER					@ 75°C	@ 85°C
		(MM ²)	(NO.)	(MM)	(MM)	(KG/KM)	KN	(Ω/KM)	(AMPERE)	(AMPERE)
35-AL3	35/7	34.9	7	2.52	7.56	95.30	10.30	0.9421	122	145
49-AL3	50/7	49.5	7	3.00	9.00	135.10	14.60	0.6647	150	180
68-AL3	70/19	68.3	19	2.14	10.70	187.60	20.16	0.4840	181	219
95-AL3	95/19	94.8	19	2.52	12.60	260.20	27.96	0.3490	219	267
125-AL3	120/19	125.5	19	2.90	14.50	344.50	37.02	0.2636	259	316
147-AL3	150/37	147.1	37	2.25	15.80	405.30	43.40	0.2256	284	348
185-AL3	185/37	184.5	37	2.52	17.60	508.40	54.44	0.1799	323	399
196-AL3	200/37	196.4	37	2.60	18.20	541.20	57.95	0.1690	335	414
244-AL3	240/37	244.4	37	2.90	20.30	673.30	72.10	0.1358	380	473
304-AL3	300/61	304.2	61	2.52	22.70	840.80	89.75	0.1094	430	538
403-AL3	400/61	402.9	61	2.90	26.10	1113.60	118.86	0.0826	504	636

ALUMINUM ALLOY WIRES – Type "AL57" AS PER SS 424 08 11



DIAMETER			MAX. RESISTIVITY AT 20°C	TEMPERATURE COEFFICIENT OF RESISTANCE	ELONGATION ON 250MM	MIN. TENSILE STRENGTH	DENSITY
OVER	UPTO & INCLUDED	TOLERANCE					
(MM)	(MM)	(MM)	(Ω-MM ² /KM)	(/°CM)	(%)	(N/MM ²)	(N/MM ²)
2.00	2.50	± 0.03	30.50 (Individual) 30.00 (Average)	0.0038	1.60	300	2.700
2.50	3.00	± 0.03			1.60	290	2.700
3.00	3.50	± 0.03			2.00	275	2.700
3.50	4.00	± 0.04			2.40	265	2.700
4.00	4.50	± 0.04			2.70	255	2.700
4.50	5.00	± 0.05			2.70	245	2.700

ALUMINUM ALLOY WIRES – Type "AL57" AS PER SS 424 08 13

DIAMETER			MAX. RESISTIVITY AT 20°C	TEMPERATURE COEFFICIENT OF RESISTANCE	ELONGATION ON 250MM	MIN. TENSILE STRENGTH	DENSITY
OVER	UPTO & INCLUDED	TOLERANCE					
(MM)	(MM)	(MM)	(Ω-MM ² /KM)	(/°CM)	(%)	(N/MM ²)	(N/MM ²)
2.00	2.50	± 0.03	29.30 (Individual) 29.05 (Average)	0.0038	2.00	250	2.700
2.50	3.00	± 0.03			2.00	250	2.700
3.00	3.50	± 0.03			2.00	250	2.700
3.50	4.00	± 0.04			2.00	240	2.700
4.00	4.50	± 0.04			2.00	230	2.700
4.50	5.00	± 0.05			2.00	230	2.700

ALUMINUM ALLOY WIRES – Type "AAAC 1120" AS PER AS 1531



DIAMETER			MAX. RESISTIVITY AT 20°C	TEMPERATURE COEFFICIENT OF RESISTANCE	ELONGATION ON 250MM	MIN. TENSILE STRENGTH	DENSITY
NOM	MIN	MAX					
(MM)	(MM)	(MM)	(Ω-MM ² /KM)	(/°CM)	(%)	(N/MM ²)	(N/MM ²)
2.500	2.475	2.525	29.30	0.0039	0.80	250	2.700
2.750	2.723	2.778			1.00	250	2.700
3.000	2.970	3.030			1.00	250	2.700
3.250	3.218	3.283			1.00	250	2.700
3.500	3.465	3.535			1.20	240	2.700
3.750	3.713	3.788			1.20	240	2.700
4.500	4.455	4.545			1.40	230	2.700
4.750	4.703	4.798			1.40	230	2.700

Note :

Wires are available in all sizes as per customer requirement.

THERMAL RESISTANT ALUMINUM ALLOY WIRES – AS PER IEC 62004



TYPE	OVER	DIAMETER			TEMPERATURE COEFFICIENT OF RESISTANCE	ELONGATION ON 250MM	MIN. TENSILE STRENGTH	Temperature of heating	Temperature of heating
		UPTO & INCLUDED	TOLERANCE	MAX. RESISTIVITY AT 20°C					
	(MM)	(MM)	(MM)	(Ω .MM ² /KM)	(/°C)	(%)	(N/MM ²)	(°C)	(°C)
AT 1	-	2.60	± 0.03	28.735	0.004	1.50	169	150	180
	2.60	2.90	± 0.03			1.60	166		
	2.90	3.50	± 0.03			1.70	162		
	3.50	3.80	± 0.04			1.80	162		
	3.80	4.00	± 0.04			1.90	159		
	4.00	4.50	± 0.04			2.00	159		
AT 2	-	2.60	± 0.03	31.347	0.004	1.50	248	150	180
	2.60	2.90	± 0.03			1.60	245		
	2.90	3.50	± 0.03			1.70	241		
	3.50	3.80	± 0.04			1.80	241		
	3.80	4.00	± 0.04			1.90	238		
	4.00	4.50	± 0.04			2.00	225		
AT 3	-	2.30	± 0.03	28.735	0.004	1.50	176	210	240
	2.30	2.60	± 0.03			1.50	169		
	2.60	2.90	± 0.03			1.60	166		
	2.90	3.50	± 0.03			1.70	162		
	3.50	3.80	± 0.04			1.80	162		
	3.80	4.00	± 0.04			1.90	159		
	4.00	4.50	± 0.04			2.00	159		
AT 4	-	2.60	± 0.03	29.726	0.004	1.50	169	230	310
	2.60	2.90	± 0.03			1.60	165		
	2.90	3.50	± 0.03			1.70	162		
	3.50	3.80	± 0.04			1.80	162		
	3.80	4.00	± 0.04			1.90	159		
	4.00	4.50	± 0.04			2.00	159		

* Density : 2.703 g/cm³, Coefficient of linear expansion : 23.0x10⁻⁶ /°C

1XXX Series Aluminum Rods for Electrical Applications



Chemical Composition

ALUMINIUM ALLOY DESIGNATION	% CHEMICAL COMPOSITION														
	SI	FE	CU	MN	MG	CR	ZN	GA	B	TI	VA	TI+VA	OTHER EACH	OTHER TOTAL	AL
1100	0.95		0.05-0.20	0.05	-	-	0.10	-	-	-	-	-	0.05	0.15	99.00
1120	0.10	0.40	0.05-0.35	0.01	0.20	0.01	0.05	0.03	0.05	-	-	0.02	0.03	0.10	99.20
1350	0.10	0.40	0.05	0.01	-	0.01	0.05	0.03	0.05	-	-	0.02	0.03	0.10	99.50
1370	0.10	0.25	0.02	0.01	0.02	0.01	0.04	0.03	0.02	-	-	0.02	0.03	0.10	99.70
Grade 2 of IS 4026 std.	0.12	0.30	0.04	0.01	-	Cr+Zr 0.01 each	-	-	-	-	-	0.02	0.03	0.10	99.60

1XXX Series Aluminum Rods for Electrical Applications



Electrical & Mechanical Properties of Aluminum Alloy Rods.

ALUMINIUM ALLOY DESIGNATION	APAR PRODUCT CODE	TEMPER	DIAMETER	TENSILE STRENGTH (MPA)		ELONGATION	RESISTIVITY	CONDUCTIVITY
				(MM)	MIN			
1100	1100		9.50 \pm 0.50	95	125	16.0-16.8	30.372	56.77
1120	1120		15.00 \pm 0.50	145	151	6.8-7.6	29.725	58.00
1350 / 1370	EC - 2H0	O	9.50 \pm 0.50 12.50 \pm 0.50	-	70	20.0	27.367	63.00
	EC - 2H01	O	9.50 \pm 0.50 12.50 \pm 0.50	-	90	15.0	27.899	61.80
	EC - 2H2	H2	9.50 \pm 0.50 12.50 \pm 0.50	93	123	4.0 - 8.0	28.264	61.00
	EC - 2H4	H4	9.50 \pm 0.50 12.50 \pm 0.50	93	123	4.0 - 8.0	28.264	61.00
	EC - 2H12	H12	9.50 \pm 0.50 12.50 \pm 0.50	83	117	4.0 - 8.0	28.035	61.50
	EC - 2H14	H14	9.50 \pm 0.50 12.50 \pm 0.50	103	138	4.0 - 8.0	28.080	61.40
	EC - 2H16	H16	9.50 \pm 0.50 12.50 \pm 0.50	117	152	4.0 - 8.0	28.126	61.30
	EC - 2H19	H19	9.50 \pm 0.50 12.50 \pm 0.50	93	123	4.0 - 8.0	28.172	61.20
Grade 2 of IS 4026 std.	EC - 211	G2-T1	9.50 \pm 0.50	64	98	12.0	28.035	61.50
	EC - 212	G2-T1	9.50 \pm 0.50 12.50 \pm 0.50	98	123	8.0	28.035	61.50
	EC - 221	G2-T2	9.50 \pm 0.50	64	98	12.0	28.264	61.00
	EC - 222	G2-T2	9.50 \pm 0.50	83	123	8.0	28.264	61.00

We develop and manufacture a broad range of alloys.

The table above shows some typical values but we can also produce according various international standards and tailor made customer specifications.

6XXX Series Aluminum Alloy Rods for Electrical Applications



Chemical Composition

ALUMINIUM ALLOY DESIGNATION	% CHEMICAL COMPOSITION														
	SI	FE	CU	MN	MG	CR	ZN	GA	B	TI	VA	TI+VA	OTHER EACH	OTHER TOTAL	AL
6061	0.40-0.80	0.70	0.15-0.40	0.15	0.80-1.20	0.04-0.35	0.25	-	-	0.15	-	-	0.05	0.15	REM
6063	0.20-0.60	0.35	0.10	0.10	0.45-0.90	0.10	0.10	-	-	-	-	-	0.05	0.15	REM
6101	0.30-0.70	0.50	0.10	0.03	0.35-0.80	0.03	0.10	-	0.06	-	-	-	0.03	0.10	REM
6201	0.50-0.90	0.50	0.10	0.03	0.60-0.90	0.03	0.10	-	0.06	-	-	-	0.03	0.10	REM
65032*	0.40-0.80	0.70	0.15-0.40	0.20-0.80	0.70-1.20	0.15-0.35	0.20			0.20					REM

6XXX Series Aluminum Alloy Rods for Electrical Applications



Electrical & Mechanical Properties of Aluminum Alloy Rods.

ALUMINIUM ALLOY DESIGNATION	APAR PRODUCT CODE	TEMPER	DIAMETER (MM)	TENSILE STRENGTH (MPA)		ELONGATION (%)	RESISTIVITY ($\mu\Omega\text{m}$)	CONDUCTIVITY (%IACS)
				MIN	MAX			
6061	Alloy W/R 6061	M	7.60 \pm 0.40 9.50 \pm 0.50 12.50 \pm 0.50	118	-	12.0	43.103	40.00
	Alloy W/R 6061	T4	7.60 \pm 0.40 9.50 \pm 0.50 12.50 \pm 0.50	175	-	14.0	43.103	40.00
	Alloy Wire 6061	T8	3.00 to 11.00	345	-	6.0	43.103	40.00
6063	Alloy Wire 6063	T8	3.00 to 8.00	345	-	6.0	43.103	40.00
6101	Alloy W/R 6101	T4	7.60 \pm 0.40 9.50 \pm 0.50	160	-	16.0	34.482	50.00
	Alloy Wire 6101	T8	2.50 to 5.00	295	-	3.0	32.530	53.00
6201	Alloy W/R 6201	M	7.60 \pm 0.40 9.50 \pm 0.50 12.50 \pm 0.50	130	-	7.0	31.928	54.00
	Alloy W/R 6201	T4	7.60 \pm 0.40 9.50 \pm 0.50 12.50 \pm 0.50	160	-	14.0	34.482	50.00
	Alloy Wire 6201	T8	2.50 to 5.00	295	-	3.5	32.530	53.00
	Alloy Wire 6201	T8	2.50 to 5.00	315	-	3.5	32.840	52.50
	Alloy Wire 6201	T8	5.01 to 9.27	290	-	3.5	33.804	51.00
65032	Alloy Wire 65032	T8	3.00 to 8.00	345	-	6.0	43.103	40.00
	EC - 221	G2-T2	9.50 \pm 0.50	64	98	12.0	28.264	61.00
	EC - 222	G2-T2	9.50 \pm 0.50	83	123	8.0	28.264	61.00

We develop and manufacture a broad range of alloys.

The table above shows some typical values but we can also produce according various international standards and tailor made customer specifications.

8XXX Series Aluminum Alloy Wire & Wire Rods for Electrical Applications



Electrical & Mechanical Properties of Aluminum Alloy Rods.

INTRODUCTION:

8000 series aluminum alloys have creep rates very similar to copper building wire, resulting in similar performance. 8000 has a higher strength-to-weight ratio than an equal ampacity copper wire. Since it is lighter, the pulling tension is lower. Lower pulling tension may decrease the chances of damaging the insulated wire in doing so. There is a wide range of strengths available from dead soft to mild steel, permitting a wide range of processing from wire drawing by rolling process to provide excellent ductility.

APPLICATION:

Building Wires, Underground Cables, Service Cables, Braided cable, Armouring..etc.

Chemical Composition

ALUMINIUM ALLOY DESIGNATION	% CHEMICAL COMPOSITION														
	SI	FE	CU	MN	MG	CR	ZN	GA	B	TI	VA	TI+VA	OTHER EACH	OTHER TOTAL	AL
8030	0.10	0.30 - 0.80	0.15 - 0.30	-	0.05		0.05		0.001 - 0.04		0.03		0.03	0.10	REM
8176	0.03 - 0.15	0.40 - 1.00					0.10	0.03					0.05	0.15	REM

Electrical & Mechanical Properties of Aluminum Alloy Rods.

ALUMINIUM ALLOY DESIGNATION	APAR PRODUCT CODE	TEMPER	DIAMETER	TENSILE STRENGTH (MPA)		ELONGATION	RESISTIVITY	CONDUCTIVITY
				MIN	MAX			
			(MM)			(%)	($\mu\Omega\text{m}$)	(%IACS)
8030	Are available in different sizes and subtypes on request							
8176	8176	F	9.50 ± 0.50	95	110	14.0	28.450	60.60
			12.00 ± 0.50	95	110	14	28.450	60.60
			15.00 ± 0.50	89	95	14.0	28.450	60.60

- We develop and manufacture a broad range of alloys.
- Wires available with different sizes as per customer requirement.
- Wire Rods can be supplied in Coils of maximum weight 2.0MT, Drawn wire 6.0mm up to 4.0mm in coils of maximum weight 1.0MT, Drawn wire below 4.0mm up to 3.0mm in coils of maximum weight 0.50MT,
- The table above shows some typical values but we can also produce according various international standards and tailor made customer specifications.



INTRODUCTION:

4043 Aluminum Alloy is the most widely used in Metal Inert Gas (MIG) welding or brazing. 4043 Al. Alloy rods used for welding of heat treatable metals, especially aluminum alloy 6xxx series alloy and also used to repair welding Al/Si cast alloy grades 353 / A356. The alloy is less sensitive to weld cracking and produces brighter and almost smut free welds.

APPLICATION:

- Welding filler wire
- Spray and flame metallizing wire
- Recommended for welding 3003, 3004, 5052, 6061, 6063, and casting alloys 43, 355, 356, and 214

Chemical Composition

ALLUMINIUM ALLOY DESIGNATION	% CHEMICAL COMPOSITION									
	SI	FE	CU	MN	MG	CR	ZN	GA	B	TI
4043	4.50 -6.00	0.60	0.30	0.15	0.10	0.15	0.20	0.05	0.15	REM

Electrical & Mechanical Properties of Aluminum Alloy Rods.

ALLUMINIUM ALLOY DESIGNATION	APAR PRODUCT CODE	TEMPER	DIAMETER	TENSILE STRENGTH (MPA)	ELONGATION	RESISTIVITY	CONDUCTIVITY
			(MM)	MIN	(%)	($\mu\Omega\text{m}$)	(%IACS)
4043	Alloy W/R 4043	M	7.60 \pm 0.40	150	16.0	31.928	54.00
			9.50 \pm 0.50				
	Alloy Wire 4043	T8	6.00 \pm 0.06	170	1.5	30.5	56.53
			4.00 \pm 0.04	190	1.5	30.5	56.53
			3.00 \pm 0.03	200	2.0	30.5	56.53

- We develop and manufacture a broad range of alloys.
- Wires available with different sizes as per customer requirement.
- Wire Rods can be supplied in Coils of maximum weight 2.0MT, Drawn wire 6.0mm up to 4.0mm in coils of maximum weight 1.0MT, Drawn wire below 4.0mm up to 3.0mm in coils of maximum weight 0.50MT,
- The table above shows some typical values but we can also produce according various international standards and tailor made customer specifications.

SPECIALITY ALLOYS

5XXX SERIES ALUMINUM ALLOY



INTRODUCTION:

The **5xxx** series are aluminum-magnesium alloys that have moderate to high strength, non-heat treatable alloys that are strain hardenable, readily weldable and have excellent resistance to corrosion even in salt water, and are very tough even at cryogenic temperatures to almost absolute zero.

APPLICATION:

Architectural applications, Signage, Marine application, Rivets, Hanger, Welding rod, Core pulling nails, Hollow nails, Cowboy buttons, Strainers, Cable armouring, Zip Manufacturing..etc

Chemical Composition

ALUMINIUM ALLOY DESIGNATION	% CHEMICAL COMPOSITION										
	SI	FE	CU	MN	MG	CR	ZN	TI	OTHER EACH	OTHER TOTAL	AL
5005	0.30	0.70	0.20	0.20	0.50 -1.10	0.10	0.25	-	0.05	0.15	REM
5050	0.30	0.70	0.20	0.10	1.10 -1.80	0.10	0.25	-	0.05	0.15	REM
5052	0.25	0.40	0.10	0.10	2.20 -2.80	0.15-0.35	0.10	-	0.05	0.15	REM
5154	0.50	0.50	0.10	0.50	3.10 -3.90	0.25	0.20	0.20	0.05	0.15	REM
5754	0.65	0.40	0.10	0.50	2.60 - 3.60	0.30	0.20	0.15	0.05	0.15	REM

Electrical & Mechanical Properties of Aluminum Alloy Wire & Wire Rods.

ALUMINIUM ALLOY DESIGNATION	TEMPER	TENSILE STRENGTH (MPA)		ELONGATION (%)	RESISTIVITY (μm)	CONDUCTIVITY (%IACS)
		MIN	MAX			
5005	F	165	205	15.0	33.100	52.00
5050	F	165	-	15.0	-	-
	O	125	145	20.0	-	-
5052	F	235	-	14.0	50.831	33.92
5154	F	210	-	8.0	56.190	30.69
	O	-	285	25.0	51.000	33.80
5754	F	200	-	14.0	43.103	40.00

- We develop and manufacture a broad range of alloys.
- Wires available with different sizes as per customer requirement.
- Wire Rods can be supplied in Coils of maximum weight 2.0MT, Drawn wire 6.0mm up to 4.0mm in coils of maximum weight 1.0MT, Drawn wire below 4.0mm up to 3.0mm in coils of maximum weight 0.50MT,
- The table above shows some typical values but we can also produce according various international standards and tailor made customer specifications.



INTRODUCTION:

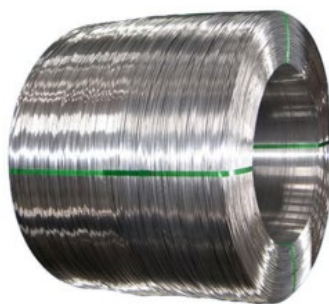
6000 series commercial aluminium alloys contain both silicon and magnesium which forms magnesium silicide – this formation makes the aluminium alloy heat-treatable.

Chemical Composition

ALUMINIUM ALLOY DESIGNATION	% CHEMICAL COMPOSITION										
	SI	FE	CU	CR	ZN	MN	MG	B	OTHER EACH	OTHER TOTAL	AL
6101	0.40 – 0.80	0.50	0.10	0.03	0.10	0.03	0.50 – 0.80	0.06	0.03	0.10	REM
6201	0.50 – 0.90	0.50	0.10	0.03	0.10	0.03	0.60 – 0.90	0.06	0.03	0.10	REM

Electrical & Mechanical Properties of Aluminum Alloy Wire & Wire Rods.

ALUMINIUM ALLOY DESIGNATION	APAR PRODUCT CODE	TEMPER	DIAMETER	TENSILE STRENGTH (MPA)	ELONGATION	RESISTIVITY	CONDUCTIVITY
			(MM)	MIN	(%)	($\mu\Omega\text{m}$)	(%IACS)
6101	Alloy 6101 (T4), Sol. Tr.	T4	7.60 ± 0.40	157	14.0	34.482	50.00
			9.50 ± 0.50				
			12.50 ± 0.50				
	Alloy 6101 (T8), Sol. Tr.	T8	6.00 to 3.00	295	3.0	32.53	53.00



- We develop and manufacture a broad range of alloys.
- Wires available with different sizes as per customer requirement.
- Wire Rods can be supplied in Coils of maximum weight 2.0MT, Drawn wire 6.0mm up to 4.0mm in coils of maximum weight 1.0MT, Drawn wire below 4.0mm up to 3.0mm in coils of maximum weight 0.50MT,
- The table above shows some typical values but we can also produce according various international standards and tailor made customer specifications.



INTRODUCTION:

6000 series commercial aluminium alloys contain both silicon and magnesium which forms magnesium silicide – this formation makes the aluminium alloy heat-treatable.

Chemical Composition

ALUMINIUM ALLOY DESIGNATION	% CHEMICAL COMPOSITION										
	SI	FE	CU	MN	MG	CR	ZN	TI	OTHER EACH	OTHER TOTAL	AL
6061	0.40 – 0.80	0.70	0.15 – 0.40	0.15	0.80 – 1.20	0.04 – 0.35	0.25	0.15	0.05	0.15	REM
6063	0.20 – 0.60	0.35	0.10	0.10	0.45 – 0.90	0.10	0.10	0.10	0.05	0.15	REM

Electrical & Mechanical Properties of Aluminum Alloy Wire & Wire Rods.

ALUMINIUM ALLOY DESIGNATION	TEMPER	TENSILE STRENGTH (MPA)		ELONGATION (%)	RESISTIVITY ($\mu\Omega\text{m}$)	CONDUCTIVITY (%IACS)
		MIN	MAX			
6061	M	7.60 ± 0.40	118	12.0	43.103	40.00
		9.50 ± 0.50				
		12.50 ± 0.50				
6061	T4	7.60 ± 0.40	177	14.0	43.103	40.00
		9.50 ± 0.50				
		12.50 ± 0.50				
6061	T8	6.00 to 3.00	343	6.0	43.103	40.00
6063	T8	6.00 to 3.00	343	6.0	43.103	40.00

- We develop and manufacture a broad range of alloys.
- Wires available with different sizes as per customer requirement.
- Wire Rods can be supplied in Coils of maximum weight 2.0MT, Drawn wire 6.0mm up to 4.0mm in coils of maximum weight 1.0MT, Drawn wire below 4.0mm up to 3.0mm in coils of maximum weight 0.50MT,
- The table above shows some typical values but we can also produce according various international standards and tailor made customer specifications.



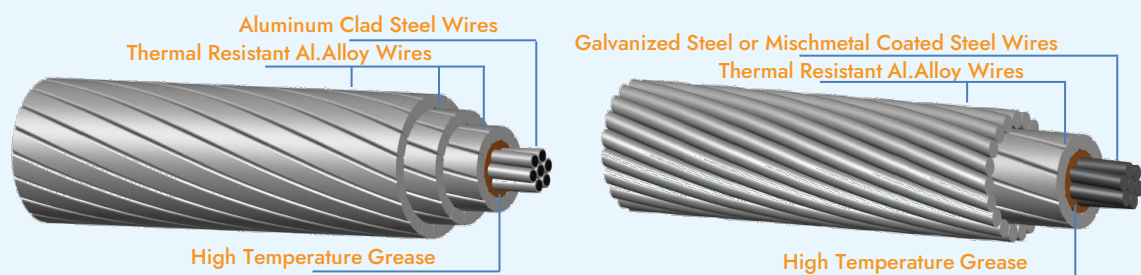
POWERLINE

GAP TYPE THERMAL-RESISTANT ALUMINUM ALLOY CONDUCTOR, STEEL REINFORCED (GTACSR & GZTACSR)

Aluminum-Zirconium wires (Type-AT1 or AT3), concentrically stranded over a steel core having a small gap between the Steel core & thermal-resistant aluminum alloy layer. This combination offers best Mechanical as well as Electrical Characteristics. Extra High Strength Galvanized Steel (EST); or aluminum-clad Extra High Strength Steel (AW). Additional corrosion protection is achieved as High Temperature Grease is applied in Between GAP of Conductor.

CONSTRUCTION:

Aluminum-Zirconium wires (Type-AT3 or AT-1), concentrically stranded over a steel core maintaining gap between the Steel core and first Aluminum Layer.



VALUES BASED ON FOLLOWING SPECIFICATIONS:

- Thermal-resistant aluminum alloy wires (Type-AT3 or AT1) for overhead line conductor as per IEC 62004
- Concentric lay stranded overhead electrical conductors IEC 61089, IEC 62420
- Zinc-coated steel wires for stranded conductors IEC 888, ASTM B957 & more
- Zinc-5% Aluminum-Mischmetal Alloy-Coated Steel Core Wire EN 50540, ASTM B802, ASTM B803 or ASTM B958.
- Aluminum Clad Steel Wires, IEC 61232, ASTM B415, EN 50540 & More

FEATURES:

- These can operate up to 210°C with specified strength loss,
- Can carry 100~150% more current as that of ACSR of the same size.
- For upgrading lines, no modifications or reinforcement is required to the existing towers
- Limiting the sag increase with the increase of the temperature by the thermal expansion coefficient above knee-point related to the steel core

GAP TYPE THERMAL-RESISTANT ALUMINUM ALLOY CONDUCTOR, STEEL REINFORCED (GTACSR & GZTACSR)



CONDUCTOR SIZE	STRANDING				CROSS-SECTIONAL AREA			DIAMETER OF COMPLETE CONDUCTOR	WEIGHT			RATED STRENGTH		DC RESISTANCE @ 20°C	CURRENT CAPACITY		
	NO. OF WIRES		WIRE DIAMETER		TAL	STEEL	TOTAL		TAL	STEEL	TOTAL	EXTRA HIGH STRENGTH	ULTRA HIGH STRENGTH		@ 85°C	@ 150°C	@ 210°C
	TAL	STEEL	TAL	STEEL													
(MM ²)	(NO.)	(NO.)	(MM)	(MM)	(MM ²)	(MM ²)	(MM ²)	(MM)	(KG/KM)	(KG/KM)	(KG/KM)	(KN)	(KN)	(Ω/KM)	Ampere	Ampere	Ampere
175	8/12	7	3.35 (TW)	2.10	176.20	24.25	200.45	17.50	486.98	189.44	691.42	66.14	66.87	0.1668	409	698	859
190	12/16	7	2.92 (TW)	2.30	187.30	29.08	216.38	18.20	517.66	227.24	761.90	74.44	75.46	0.1569	425	728	896
195	20/12	7	2.40(R) 2.88(TW)	2.20	168.80	26.61	195.41	18.06	466.53	207.91	690.44	69.51	70.31	0.1741	403	689	849
218	18/12	7	2.78(R) 2.94(TW)	2.25	190.50	27.83	218.33	19.10	526.51	217.47	759.98	74.47	75.31	0.1542	433	744	917
240	8/12	7	4.02 (TW)	2.40	253.40	31.67	285.07	20.60	700.35	247.43	964.78	88.34	89.45	0.1159	507	877	1083
248	12/8	7	3.71(TW)	2.40	216.12	31.67	247.79	19.40	597.32	247.43	862.75	83.00	84.11	0.1360	463	796	981
287	18/12	7	3.15(R) 3.43(TW)	2.55	251.00	35.75	286.75	21.77	693.72	279.33	993.04	94.85	96.10	0.1171	510	886	1096
287	20/12	7	2.90(R) 3.55(TW)	2.55	251.00	35.75	286.75	21.77	693.72	279.33	993.04	95.33	96.58	0.1171	510	886	1096
310	16/12	7	3.90(R) 3.69(TW)	2.80	319.40	43.10	362.50	24.40	882.76	336.78	1241.54	116.10	117.60	0.0920	589	1033	1281
400	18/12	7	3.90(R) 4.45(TW)	2.80	401.40	43.10	444.50	26.90	1109.40	336.78	1468.18	129.16	130.67	0.0732	673	1190	1480
410	14/12	7	4.90(R) 3.99(TW)	3.00	414.00	49.48	463.48	27.60	1144.22	386.61	1554.83	138.95	140.68	0.0710	687	1218	1515
439	15/12	7	4.50(R) 4.04(TW)	2.90	392.50	46.24	438.74	26.84	1084.80	361.27	1469.07	132.44	134.06	0.0749	665	1176	1462
462	14/12	7	4.90(R) 3.99(TW)	2.95	414.30	47.84	462.14	27.60	1145.05	373.83	1542.88	136.47	138.14	0.0709	687	1219	1516
540	24/14/1 0	7	3.55(R) 3.98(TW)	3.10	536.20	52.83	589.03	31.30	1483.12	412.81	1920.93	164.15	166.00	0.0548	799	1436	1793
620	16/12/1 2	7	4.80(TW) 4.75(TW) 3.47(TW)	3.20	615.70	56.30	672.00	31.50	1703.01	439.88	2168.89	177.96	179.93	0.0478	856	1539	1922

NOTE:

Current capacity based on referenced conductor temperature, 0.56 m/s wind, 0 m Elevation, 0.45 Emmisivity, 0.80 absorptivity, 45°C Ambient temperature, 1045 W/m² Solar radiation

Customized conductor sizes based on customer's requirement can also be designed.

GAP TYPE THERMAL-RESISTANT ALUMINUM ALLOY CONDUCTOR, STEEL REINFORCED (GTACSR & GZTACSR)



CONDUCTOR SIZE	STRANDING				CROSS-SECTIONAL AREA			DIAMETER OF COMPLETE CONDUCTOR	WEIGHT			RATED STRENGTH		DC RESISTANCE @ 20°C	CURRENT CAPACITY		
	NO. OF WIRES		WIRE DIAMETER		TAL	STEEL	TOTAL		TAL	STEEL	TOTAL	EXTRA HIGH STRENGTH	ULTRA HIGH STRENGTH		@ 85°C	@ 150°C	@ 210°C
	TAL	STEEL	TAL	STEEL													
(MM ²)	(NO.)	(NO.)	(MM)	(MM)	(MM ²)	(MM ²)	(MM ²)	(MM)	(KG/KM)	(KG/KM)	(KG/KM)	(KN)	(KN)	(Ω/KM)	Ampere	Ampere	Ampere
175	8/12	7	3.35 (TW)	2.10	176.20	24.25	200.45	17.50	486.98	160.46	647.44	57.65	62.26	0.1593	418	714	879
190	12/16	7	2.92 (TW)	2.30	187.30	29.08	216.38	18.20	517.66	192.48	710.14	65.28	69.93	0.1490	436	747	919
195	20/12	7	2.40(R) 2.88(TW)	2.20	168.80	26.61	195.41	18.06	466.53	176.11	642.64	60.20	65.25	0.1652	414	708	871
218	18/12	7	2.78(R) 2.94(TW)	2.25	190.50	27.83	218.33	19.10	526.51	184.21	710.72	64.73	70.02	0.1470	444	762	940
240	8/12	7	4.02 (TW)	2.40	253.40	31.67	285.07	20.60	700.35	209.59	909.94	78.36	83.43	0.1112	518	895	1105
248	12/8	7	3.71(TW)	2.40	216.12	31.67	247.79	19.40	597.32	209.59	806.91	73.03	78.09	0.1295	474	816	1006
287	18/12	7	3.15(R) 3.43(TW)	2.55	251.00	35.75	286.75	21.77	693.72	236.60	930.32	83.59	89.31	0.1117	523	908	1122
287	20/12	7	2.90(R) 3.55(TW)	2.55	251.00	35.75	286.75	21.77	693.72	26.60	720.32	84.07	89.79	0.1117	523	908	1122
310	16/12	7	3.90(R) 3.69(TW)	2.80	319.40	43.10	362.50	24.40	882.76	285.27	1168.03	102.52	109.41	0.0880	602	1056	1310
400	18/12	7	3.90(R) 4.45(TW)	2.80	401.40	43.10	444.50	26.90	1109.40	285.27	1394.67	115.59	122.48	0.0706	685	1212	1507
410	14/12	7	4.90(R) 3.99(TW)	3.00	414.00	49.48	463.48	27.60	1144.22	327.48	1471.70	123.36	131.28	0.0682	700	1242	1545
439	15/12	7	4.50(R) 4.04(TW)	2.90	392.50	46.24	438.74	26.84	1084.80	306.00	1390.80	117.87	125.27	0.0720	678	1200	1491
462	14/12	7	4.90(R) 3.99(TW)	2.95	414.30	47.84	462.14	27.60	1145.05	316.65	1461.70	121.40	129.05	0.0682	700	1242	1545
540	24/14/1 0	7	3.55(R) 3.98(TW)	3.10	536.20	52.83	589.03	31.30	1483.12	349.67	1832.79	149.36	156.23	0.0536	808	1452	1812
620	16/12/1 2	7	4.80(TW) 4.75(TW) 3.47(TW)	3.20	615.70	56.30	672.00	31.50	1703.01	372.60	2075.61	162.19	169.51	0.0467	865	1556	1944

NOTE:

Current capacity based on referenced conductor temperature, 0.56 m/s wind, 0 m Elevation, 0.45 Emmisivity, 0.80 absorptivity, 45°C Ambient temperature, 1045 W/m² Solar radiation.

Customized conductor sizes based on customer's requirement can also be designed.

ALUMINUM CLAD INVAR [AS INVAR]



Aluminum Clad Invar is Fe-36%Ni alloy. "Invar" is an abbreviation of invariable. That means invar alloy length is invariable against temperature change. Thermal expansion coefficient of AS Invar is $3.7 \times 10^{-6}/^{\circ}\text{C}$ (below 230°C), which is one third of steel's and one sixth of aluminum's. AS invar adopts aluminum cladding for coating. AS invar withstands high temperature condition and offers better anti-corrosion characteristic.

ALUMINUM CLAD INVAR - AS PER JCS 1404 STD.

DIAMETER	DIAMETER TOLERANCE	MIN TENSILE STRENGTH	MIN. ELONGATION AT FRACTURE ON 250MM GAUGE LENGTH	MIN. NO. OF TWISTS ON 100XD	MIN. RADIAL THICKNESS OF ALUMINUM CLADDING	COEFFICIENT OF LINEAR EXPANSION		MASS	MIN. CONDUCTIVITY	DC RESISTANCE @ 20°C
						15~230 $^{\circ}\text{C}$	230~290 $^{\circ}\text{C}$			
(mm)	(mm)	(N/mm ²)	%	(turns)	(mm)	$\times 10^{-6} \text{ }^{\circ}\text{C}^{-1}$	$\times 10^{-6} \text{ }^{\circ}\text{C}^{-1}$	(Kg/Km)	(%IACS)	(Ω /Km)
3.00	± 0.06	1030	1.50	20.00	4.6% of nominal radial thickness	≤ 3.70	≤ 10.80	50.19	13.8	17.42
3.40	± 0.07	981						64.46		13.56
3.80	± 0.07	981						80.52		10.86
4.30	± 0.08	932						103.11		8.48
5.00	± 0.10	932						139.41		6.27

ALUMINUM CLAD INVAR - HIGH STRENGTH

DIAMETER	DIAMETER TOLERANCE	MIN TENSILE STRENGTH	MIN. ELONGATION AT FRACTURE ON 250MM GAUGE LENGTH	MON. NO. OF TWISTS ON 100XD	MIN. RADIAL THICKNESS OF ALUMINUM CLADDING	COEFFICIENT OF LINEAR EXPANSION		MASS	MIN. CONDUCTIVITY	DC RESISTANCE @ 20°C
						15~230 $^{\circ}\text{C}$	230~290 $^{\circ}\text{C}$			
(mm)	(mm)	(N/mm ²)	%	(turns)	(mm)	$\times 10^{-6} \text{ }^{\circ}\text{C}^{-1}$	$\times 10^{-6} \text{ }^{\circ}\text{C}^{-1}$	(Kg/Km)	(%IACS)	(Ω /Km)
2.00	± 0.04	1150	1.50	20.00	4.6% of nominal radial thickness	≤ 3.70	≤ 10.80	22.31	13.8	39.20
2.30	± 0.04	1150						29.50		29.64
2.60	± 0.05	1150						37.70		23.20
2.80	± 0.05	1130						43.72		20.00
3.00	± 0.06	1130						50.19		17.42
3.40	± 0.06	1100						64.46		13.56
3.80	± 0.06	1100						80.52		10.86
4.00	± 0.06	1080						89.22		9.80
4.30	± 0.06	1080						103.11		8.48
4.50	± 0.06	1080						112.92		7.74
5.00	± 0.07	1030						139.41		6.27



POWERLINE

GALVANIZED STEEL

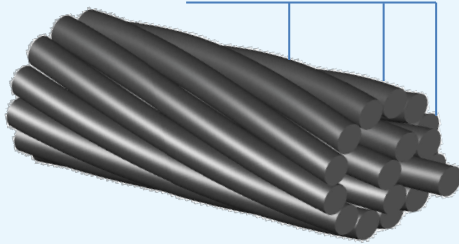
WIRE EARTH WIRE / STAY WIRE / GUY WIRE / SPACER CABLE (GSW)

GSW Earth Wire, Stay Wire, Guy Wires, Spaces Cables, etc. are used as overhead ground wire or static wire on transmission lines, as pole or structure guy wires, and as messenger cable for field-erected aerial cable.

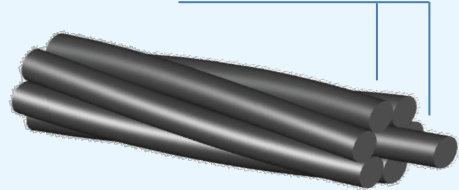
CONSTRUCTION:

Galvanized steel Wires, concentrically stranded over a central wire of Galvanized steel wire.

Galvanized steel steel wire



Galvanized steel steel wire



GALVANIZED STEEL WIRE EARTH WIRE / STAY WIRE / GUY WIRE / SPACER CABLE (GSW) -BS 183

SECTIONAL AREA	STRANDING		DIAMETER OF EARTH WIRE	WEIGHT	RATED STRENGTH						
	NO. OF WIRES	INDIVIDUAL WIRE DIAMETER			GRADE 350	GRADE 480	GRADE 700	GRADE 850	GRADE 1000	GRADE 1150	GRADE 1300
(MM ²)	(NO.)	(MM)	(MM)	(KG/KM)	(KN)	(KN)	(KN)	(KN)	(KN)	(KN)	(KN)
7.63	3	1.80	3.90	60.00	2.65	3.66	-	-	-	-	-
16.55	3	2.65	5.70	130.00	5.80	7.95	-	-	-	-	-
24.89	3	3.25	7.00	195.00	8.70	11.95	-	-	-	-	-
37.70	3	4.00	8.60	295.00	13.20	18.10	-	-	-	-	-
10.18	4	1.80	4.40	80.00	3.55	4.90	-	-	-	-	-
22.06	4	2.65	6.40	172.00	7.70	10.60	-	-	-	-	-

GALVANIZED STEEL WIRE EARTHWIRE / STAYWIRE / GUYWIRE / SPACER CABLE (GSW) -BS 183



SECTIONAL AREA	STRANDING		DIAMETER OF EARTHWIRE	WEIGHT	RATED STRENGTH						
	NO. OF WIRES	INDIVIDUAL WIRE DIAMETER			GRADE 350	GRADE 480	GRADE 700	GRADE 850	GRADE 1000	GRADE 1150	GRADE 1300
(MM ²)	(NO.)	(MM)	(MM)	(KG/KM)	(KN)	(KN)	(KN)	(KN)	(KN)	(KN)	(KN)
33.18	4	3.25	7.90	260.00	11.60	15.90	-	-	-	-	-
50.27	4	4.00	9.70	390.00	17.60	24.10	35.20	-	-	-	-
8.84	5	1.50	4.10	69.00	3.10	4.24	6.18	-	-	-	-
12.72	5	1.80	4.90	95.00	4.45	6.10	8.90	-	-	-	-
27.58	5	2.65	7.20	220.00	9.65	13.25	19.30	-	-	-	-
41.48	5	3.25	8.80	320.00	14.50	19.90	29.00	-	-	-	-
62.83	5	4.00	10.80	490.00	22.00	30.15	43.95	-	-	-	-
1.72	7	0.56	1.70	14.00	0.60	0.83	1.20	-	1.70	1.98	2.24
2.77	7	0.71	2.10	28.00	0.97	1.33	1.94	-	2.75	3.19	3.60
3.97	7	0.85	2.60	31.00	1.39	1.90	2.80	-	3.95	4.57	5.15
4.45	7	0.90	2.70	35.00	1.55	2.14	3.10	-	4.45	5.12	5.80
5.50	7	1.00	3.00	43.00	1.92	2.64	3.85	-	5.50	6.32	7.15
8.59	7	1.25	3.80	67.00	3.01	4.10	6.00	-	8.55	9.88	11.15
10.78	7	1.40	4.20	84.00	3.75	5.17	7.54	9.16	10.75	12.35	14.00
11.24	7	1.43	4.30	86.00	3.85	5.28	7.70	9.35	11.00	12.65	14.30
14.07	7	1.60	4.80	110.00	4.90	6.75	9.85	11.95	14.10	16.20	18.30
17.81	7	1.80	5.40	140.00	6.23	8.55	12.45	-	17.80	20.50	23.20
21.99	7	2.00	6.00	170.00	7.70	10.55	15.40	-	22.00	25.30	38.60
30.62	7	2.36	7.10	240.00	10.70	14.70	21.40	-	30.60	35.20	39.80
38.61	7	2.65	8.00	300.00	13.50	18.50	27.00	-	38.60	44.40	50.20
49.48	7	3.00	9.00	392.00	17.30	23.75	34.65	-	49.50	56.90	64.30
54.55	7	3.15	9.50	430.00	19.10	26.20	38.20	-	54.55	62.75	70.90
58.07	7	3.25	9.80	460.00	20.30	27.85	40.65	-	58.05	66.80	75.50
73.24	7	3.65	11.00	570.00	25.60	35.15	51.25	-	73.25	84.20	95.20
87.96	7	4.00	12.00	690.00	30.90	42.20	61.60	-	88.00	101.00	114.00
99.30	7	4.25	12.80	780.00	34.75	47.65	69.50	-	99.30	114.00	129.00
124.04	7	4.75	14.00	970.00	43.40	59.45	86.80	-	124.00	142.70	161.30
14.92	19	1.00	5.00	120.00	5.22	7.16	10.45	-	14.92	17.16	19.40
23.32	19	1.25	6.30	180.00	8.16	11.19	16.32	-	23.32	26.81	30.31
29.25	19	1.40	7.00	230.00	10.24	14.04	14.04	-	29.25	33.64	38.02
38.20	19	1.60	8.00	300.00	13.37	18.34	26.75	-	38.20	43.93	49.66
59.69	19	2.00	10.00	470.00	20.90	28.65	41.78	50.7	59.69	68.64	77.60
93.27	19	2.50	12.50	730.00	32.65	44.80	65.29	79.3	93.27	107.30	121.30
134.30	19	3.00	15.00	1050.00	47.00	64.50	94.00	114.1	134.30	154.50	174.60
188.06	19	3.55	17.80	1470.00	65.80	90.27	131.60	159.9	188.00	216.30	244.50
238.76	19	4.00	20.00	1870.00	83.55	114.60	167.10	203.0	238.70	274.60	310.40
336.69	19	4.75	23.80	2630.00	117.85	161.60	235.70	286.0	336.70	387.20	437.70

GALVANIZED STEEL WIRE EARTHWIRE / STAYWIRE / GUYWIRE / SPACER CABLE (GSW) - GOST 3063



SECTIONAL AREA	STRANDING		DIAMETER OF EARTHWIRE	WEIGHT	RATED STRENGTH					
	CENTER WIRE	INSIDE LAYER			1370	1570	1670	1770	1880	1960
(MM ²)	(NO.)	(MM)	(MM)	(KG/KM)	(KN)	(KN)	(KN)	(KN)	(KN)	(KN)
29.48	1.50	1.4	7.10	253.00	36.35	41.55	44.100	45.850	48.000	50.500
33.82	1.60	1.5	7.60	290.50	41.65	47.65	50.550	52.750	55.050	60.400
38.46	1.70	1.6	8.10	330.00	44.40	54.20	57.600	59.950	62.600	65.900
43.4	1.80	1.7	8.60	372.50	53.55	61.20	65.000	67.700	70.650	74.400
48.64	1.90	1.8	9.10	417.50	59.95	68.60	72.850	75.900	79.200	83.300
60.35	2.20	2	10.00	519.00	74.45	85.10	94.100	93.500	98.000	102.400
72.95	2.40	2.2	11.00	627.40	89.95	102.00	109.000	112.500	118.500	123.500
86.74	2.60	2.4	12.00	746.00	106.00	122.00	129.000	134.000	140.500	147.000
101.72	2.80	2.6	13.00	873.00	124.50	143.00	151.500	158.000	165.000	173.500
117.9	3.00	2.8	14.00	1050.00	145.50	166.00	176.000	183.500	190.000	200.500
135.28	3.20	3	15.00	1160.00	166.50	190.00	202.000	210.500	220.000	231.500
153.84	3.40	3.2	16.00	1320.00	189.50	216.50	226.000	236.500	-	-
173.60	3.60	3.4	17.00	1490.00	214.00	244.50	255.500	267.500	-	-
216.7	4.00	3.8	19.00	1855.00	267.00	305.00	318.500	334.000	-	-

GALVANIZED STEEL WIRE EARTHWIRE / STAYWIRE / GUYWIRE / SPACER CABLE (GSW) -ASTM A 475

SECTIONAL AREA	STRANDING		DIAMETER OF EARTHWIRE	WEIGHT	RATED STRENGTH				
	NO. OF WIRES	INDIVIDUAL WIRE DIAMETER			COMMON GRADE	SIEMENS MARTIN GRADE	HIGH STRENGTH GRADE	ESTRA HIGH STRENGTH GRADE	UTILITY GRADE
(MM ²)	(NO.)	(MM)	(MM)	(KG/KM)	(KN)	(KN)	(KN)	(KN)	(KN)
5.95	7	1.04	3.18	48.00	2.402	4.048	5.916	8.140	-
9.58	7	1.32	3.97	76.00	3.870	6.539	6.539	13.078	-
13.55	7	1.57	4.76	109.00	5.115	8.452	12.677	17.748	-
14.97	7	1.65	4.76	119.00	-	-	-	-	10.676
16.42	3	2.64	5.56	131.00	6.228	10.409	15.569	21.796	-
18.41	7	1.83	5.56	146.00	6.850	11.387	17.126	24.020	-

GALVANIZED STEEL WIRE EARTHWIRE / STAYWIRE / GUYWIRE / SPACER CABLE (GSW) -ASTM A 475



SECTIONAL AREA	STRANDING		DIAMETER OF EARTHWIRE	WEIGHT	RATED STRENGTH				
	NO. OF WIRES	INDIVIDUAL WIRE DIAMETER			COMMON GRADE	SIEMENS MARTIN GRADE	HIGH STRENGTH GRADE	ESTRA HIGH STRENGTH GRADE	UTILITY GRADE
(MM ²)	(NO.)	(MM)	(MM)	(KG/KM)	(KN)	(KN)	(KN)	(KN)	(KN)
21.92	3	3.05	6.35	174.00	8.274	13.523	21.040	29.981	14.01
21.92	3	3.05	6.35	174.00	-	-	-	-	20.02
22.66	7	2.03	6.35	180.00	8.452	14.012	21.129	29.581	-
25.66	3	3.30	7.14	204.00	9.252	15.035	23.398	33.362	-
30.62	7	2.36	7.14	244.00	11.432	18.905	28.469	39.812	20.46
31.91	3	3.68	7.94	255.00	11.076	18.193	28.246	40.479	-
38.32	7	2.64	7.94	305.00	14.234	23.798	35.586	49.820	-
42.18	7	2.77	7.94	335.00	-	-	-	-	26.69
41.37	3	4.19	9.52	328.00	14.813	24.732	37.187	52.489	37.81
51.14	7	3.05	9.52	407.00	18.905	30.915	48.040	68.503	51.16
74.45	7	3.68	11.11	595.00	25.355	41.591	64.499	92.523	80.07
96.52	7	4.19	12.70	770.00	32.917	53.823	83.627	119.657	111.21
96.27	19	2.54	12.70	751.00	33.895	56.492	84.961	118.768	-
125.62	7	4.78	14.29	1000.00	42.703	69.837	108.981	155.688	-
122.92	19	2.87	14.29	949.00	42.881	71.616	107.202	149.905	-
152.11	7	5.26	15.88	1211.00	51.599	84.961	131.667	188.605	-
150.90	19	3.18	15.88	1186.00	48.930	80.513	124.995	178.819	-
216.62	19	3.81	19.05	1721.00	71.172	116.543	181.487	259.331	-
302.18	19	4.50	22.22	2356.00	97.416	159.691	248.211	354.523	-
385.10	19	5.08	25.40	3089.00	127.66	209.07	325.61	464.8	-
382.92	37	3.63	25.40	3065.00	125.89	205.51	319.83	456.8	-
486.12	37	4.09	28.58	4010.00	160.14	262.00	407.46	581.8	-
601.61	37	4.55	31.75	4840.00	198.39	324.72	505.32	721.5	-

GALVANIZED STEEL WIRE EARTHWIRE / STAYWIRE / GUYWIRE / SPACER CABLE (GSW) - ASTM A 363



SECTIONAL AREA	STRANDING		DIAMETER OF EARTHWIRE	WEIGHT	RATED STRENGTH				
	NO. OF WIRES	INDIVIDUAL WIRE DIAMETER			COMMON GRADE	SIEMENS MARTIN GRADE	HIGH STRENGTH GRADE	ESTRA HIGH STRENGTH GRADE	UTILITY GRADE
(MM ²)	(NO.)	(MM)	(MM)	(KG/KM)	(KN)	(KN)	(KN)	(KN)	(KN)
31.91	3	3.68	7.94	255.00	-	-	-	-	28.90
38.32	7	2.64	7.94	305.00	-	-	35.60	49.8	-
51.14	7	3.05	9.52	407.00	-	-	48.00	68.4	51.20
74.45	7	3.68	11.11	595.00	-	-	64.50	92.5	-
96.52	7	4.19	12.70	770.00	-	-	83.60	119.6	-

GALVANIZED STEEL WIRE EARTHWIRE / STAYWIRE / GUYWIRE / SPACER CABLE (GSW) - DIN 48201-Part 3

NOMINAL AREA	SECTIONAL AREA	STRANDING		DIAMETER OF EARTHWIRE	WEIGHT	RATED STRENGTH			
		NO. OF WIRES	INDIVIDUAL WIRE DIAMETER			ST I	ST II	ST III	ST IV
(MM ²)	(MM ²)	(NO.)	(MM)	(MM)	(KG/KM)	(KN)	(KN)	(KN)	(KN)
25	24.25	7	2.10	6.30	192.00	8.98	15.90	30.18	36.17
35	34.36	7	2.50	7.50	272.00	12.73	22.52	42.76	51.25
50	49.48	7	3.00	9.00	391.00	18.33	32.43	61.58	73.80
50	48.35	19	1.80	9.00	384.00	17.91	31.69	60.17	72.11
70	65.81	19	2.10	10.50	522.00	24.38	43.14	81.90	98.16
95	93.27	19	2.50	12.50	741.00	34.56	61.14	116.07	139.11
120	116.99	19	2.80	14.00	929.00	43.34	76.69	145.59	174.49

GALVANIZED STEEL WIRE EARTHWIRE / STAYWIRE / GUYWIRE / SPACER CABLE (GSW) -IS 12776



SECTIONAL AREA	STRANDING		DIAMETER OF EARTHWIRE	WEIGHT	RATED STRENGTH		
	NO. OF WIRES	INDIVIDUAL WIRE DIAMETER			GRADE 981	GRADE 1100	GRADE 1310
(MM ²)	(NO.)	(MM)	(MM)	(KG/KM)	(KN)	(KN)	(KN)
49.48	7	3.00	9.00	386.00	43.70	49.00	58.30
54.55	7	3.15	9.45	426.00	48.20	54.00	64.30
58.07	7	3.25	9.75	454.00	51.30	57.50	68.50
60.96	7	3.33	9.99	476.00	53.80	60.40	71.90
73.65	7	3.66	10.98	575.00	65.00	72.90	86.80
87.96	7	4.00	12.00	687.00	77.70	87.10	104.00

GALVANIZED STEEL WIRE EARTHWIRE / STAYWIRE / GUYWIRE / SPACER CABLE (GSW) -IS 2141



SECTIONAL AREA	STRANDING		DIAMETER OF EARTHWIRE	WEIGHT	RATED STRENGTH				
	NO. OF WIRES	INDIVIDUAL WIRE DIAMETER			GRADE 1770	GRADE 1570	GRADE 1100	GRADE 700	GRADE 450
(MM ²)	(NO.)	(MM)	(MM)	(KG/KM)	(KN)	(KN)	(KN)	(KN)	(KN)
23.38	3	3.15	6.79	-	40.10	35.60	24.90	15.90	10.20
31.17	4	3.15	7.60	-	52.40	46.50	32.60	20.70	13.30
2.01	4	0.80	2.40	-	5.50	4.90	3.40	2.20	1.40
4.91	4	1.25	3.75	-	13.50	12.00	8.40	5.40	3.40
3.14	4	1.00	4.80	-	22.20	19.70	13.80	8.80	5.60
12.57	4	2.00	6.00	-	34.70	30.80	21.60	13.70	8.80
27.59	7	2.24	6.72	-	43.50	38.60	27.00	17.20	11.10
34.36	7	2.50	7.50	-	54.20	48.10	33.70	21.40	13.80
54.55	7	3.15	9.45	-	86.00	76.30	53.50	34.00	21.90
87.96	7	4.00	12.00	-	139.00	123.00	86.20	54.90	35.30
3.52	7	0.80	4.00	-	14.90	13.20	9.20	5.90	3.80
8.59	7	1.25	6.25	-	36.30	32.20	22.60	14.40	9.20
14.07	7	1.60	8.00	-	59.50	52.80	37.00	23.50	15.10
59.69	19	2.00	10.00	-	93.00	82.50	57.80	36.80	23.60
74.88	19	2.24	11.20	-	117.00	103.00	72.50	46.10	29.70
93.27	19	2.50	12.50	-	145.00	129.00	90.30	57.50	36.90
238.76	19	4.00	20.00	-	372.00	330.00	231.00	147.00	94.60
9.55	19	0.80	5.60	-	28.80	25.50	17.90	11.40	7.30
23.32	19	1.25	8.75	-	70.30	62.30	43.70	27.80	17.90
38.20	19	1.60	11.20	-	115.00	102.00	71.50	45.50	29.30
116.24	37	2.00	14.00	-	180.00	160.00	112.00	71.10	45.70
145.81	37	2.24	15.68	-	226.00	200.00	140.00	89.20	57.40
181.62	37	2.50	17.50	-	281.00	249.00	175.00	111.00	71.40
288.35	37	3.15	22.05	-	446.00	396.00	277.00	176.00	113.00
464.96	37	4.00	28.00	-	719.00	638.00	447.00	284.00	183.00



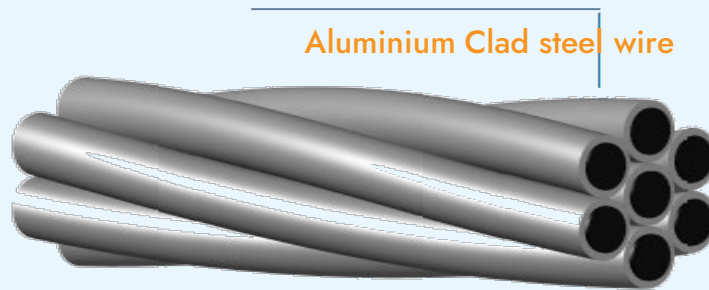
POWERLINE

ALUMINIUM CLAD STEEL WIRE (ACS)

Aluminium-clad steel wire, commonly abbreviated as AW or AS or AC, is an electrical conductor composed of an inner steel core and outer Aluminium cladding. Aluminum clad steel wire is a bimetallic in which aluminum covers on the steel core continuously and evenly.

CONSTRUCTION:

Aluminum clad steel Wires, concentrically stranded over a central wire of Aluminum clad steel wire.



ALUMINUM CLAD STEEL CONDUCTOR (ACS) - EN 50182

CODE NAME	SECTIONAL NAME	STRANDING		OVERALL DIAMETER OF CONDUCTOR	WEIGHT	D C RESISTANCE AT 20°C	RATED STRENGTH
		NO. OF WIRES	INDIVIDUAL WIRE DIAMETER				
	(MM ²)	(NO.)	(MM)	(MM)	(KG/KM)	(Ω/Km)	(KN)
24-A20SA	24.2	7	2.10	6.30	161.5	3.5364	32.49
34-A20SA	34.4	7	2.50	7.50	229.0	2.4953	46.04
49-A20SA	49.5	7	3.00	9.00	329.7	1.7328	66.30
66-A20SA	65.8	19	2.10	10.50	441.0	1.3102	88.18
93-A20SA	93.3	19	2.50	12.50	624.9	0.9245	124.98
117-A20SA	117.0	19	2.80	14.00	783.9	0.7370	156.77
147-A20SA	147.1	37	2.25	15.80	989.2	0.5881	197.13
182-A20SA	181.6	37	2.50	17.50	1 221.2	0.4764	243.38
243-A20SA	242.5	61	2.25	20.30	1 636.1	0.3579	325.00
299-A20SA	299.4	61	2.50	22.50	2 019.8	0.2899	401.24

ALUMINUM CLAD STEEL CONDUCTOR (ACS) – ASTM B 416



NOMINAL AREA	SECTIONAL NAME	STRANDING		OVERALL DIAMETER OF CONDUCTOR	WEIGHT	D C RESISTANCE AT 20°C	RATED STRENGTH
		NO. OF WIRES	INDIVIDUAL WIRE DIAMETER				
(CMILS)	(MM ²)	(NO.)	AWG	(MM)	(KG/KM)	(Ω/Km)	(KN)
37 No. 5 AWG	620.6	37	4.62	32.26	4169.82	0.1393	635.21
37 No. 6 AWG	492.2	37	4.11	28.70	3306.69	0.1757	534.68
37 No. 7 AWG	390.3	37	3.67	25.65	2622.14	0.2216	447.94
37 No. 8 AWG	309.5	37	3.26	22.83	2080.45	0.2794	374.54
37 No. 9 AWG	245.5	37	2.91	20.35	1648.88	0.3524	297.01
37 No. 10 AWG	194.6	37	2.59	18.11	1308.09	0.4442	235.53
19 No. 5 AWG	318.7	19	4.62	23.11	2128.07	0.2698	326.28
19 No. 6 AWG	252.7	19	4.11	20.57	1687.57	0.3402	274.46
19 No. 7 AWG	200.5	19	3.67	18.31	1338.60	0.4292	230.11
19 No. 8 AWG	159.0	19	3.26	16.31	1061.80	0.5410	192.34
19 No. 9 AWG	126.1	19	2.91	14.53	842.00	0.6821	152.53
19 No. 10 AWG	99.9	19	2.59	12.93	667.74	0.8603	120.95
7 No. 5 AWG	117.4	7	4.62	13.87	781.14	0.7428	120.24
7 No. 6 AWG	93.1	7	4.11	12.34	619.52	0.9197	101.11
7 No. 7 AWG	73.9	7	3.67	11.00	491.09	1.1598	84.78
7 No. 8 AWG	58.6	7	3.26	9.78	389.60	1.4627	70.86
7 No. 9 AWG	46.4	7	2.91	8.71	308.94	1.8443	56.18
7 No. 10 AWG	36.8	7	2.59	7.77	245.10	2.3256	44.57
7 No. 11 AWG	29.2	7	2.30	6.91	194.35	2.9326	35.34
7 No. 12 AWG	23.2	7	2.05	6.15	154.17	3.6977	28.03
3 No. 5 AWG	50.3	3	4.62	9.96	334.09	1.6986	54.40
3 No. 6 AWG	39.9	3	4.11	8.86	265.04	2.1418	45.73
3 No. 7 AWG	31.6	3	3.67	7.90	210.13	2.7009	38.35
3 No. 8 AWG	25.1	3	3.26	7.04	166.67	3.4057	32.05
3 No. 9 AWG	19.9	3	2.91	6.27	132.16	4.2948	25.42
3 No. 10 AWG	15.8	3	2.59	5.59	104.81	5.4169	20.16



POWERLINE

MEDIUM VOLTAGE COVERED CONDUCTOR (MVCC)

Construction of Covered Conductor: "Covered conductors consist of a conductor insulated by a covering made of insulating material(s) as protection against accidental contacts with other covered conductors and with grounded parts such as tree branches, etc. In comparison with insulated conductors, this covering has reduced thickness, but is sufficient to withstand the phase-to-earth voltage temporarily"

CONSTRUCTION:

- Aluminum Alloy 6201 Wires, concentrically stranded over a central wire of Aluminum 6201.
- Aluminum 1350–H19 Wires, concentrically stranded over a central wire/core of Galvanized steel.
- 35 mm² to 240 mm² (aluminium alloy), 50 mm² to 150 mm² (total cross-section for steel reinforced aluminium)
- Conductor design: the conductors may be compacted or non-compacted. "Information on bare conductors in frequent use may be found in the national lists, contained in Annex F of EN 50182. "



A – Semiconducting Layer

B – XLPE Insulation

C – UV Protected & Track Resistant Covering

FEATURES:

- Conductor : Longitudinally Water tight ACSR /AAAC/AL7/AL59 Or High Temperature conductor.
- Conductor Screen : Water swellable semi-conducting tape (if required) and extruded semi-conducting compound.
- Inner Insulation: XLPE
- Outer Insulation: UV protected and anti-tracking black colored XLPE / HDPE
- The nominal thickness of the covering shall be not less than 1.20 mm for 11 KV, 2.30 mm for 33 KV & 3.60 mm for 66 KV

MEDIUM VOLTAGE COVERED CONDUCTOR (MVCC) FOR 36KV: - SS EN 50397-1



CODE NAME	SECTIONAL AREA	STRANDIN G		INNER SEMICONDUCTIVE LAYER, THICKNESS, NOM	INNER XLPE COVERING, THICKNESS, NOM	OUTER UV-RESIST. XLPE-COVERING, THICKNESS, NOM	OVERALL DIAMETER	MASS PER UNIT LENGTH (APPROX)	RATED TENSILE STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
		MINIMUM NUMBER OF WIRES	(NO.)								@ 75°C	@ 85°C
35-AL2	(MM ²) 35.0	(NO.) 7	(MM) 0.40	(MM) 2.43	(MM) 1.20	(MM) 14.96 ± 0.20	(KG/KM) 244.3	KN 10.30	(Ω/KM) 0.9860	(AMPERE) 114	(AMPERE) 136	
50-AL2A	50.0	7	0.40	2.43	1.20	16.06 ± 0.20	292.2	14.20	0.7200	138	165	
50-AL2B	50.0	7	0.40	2.43	1.20	16.06 ± 0.20	304.2	14.70	0.7200	138	165	
70-AL2	70.0	7	0.40	2.43	1.20	17.76 ± 0.25	376.2	20.60	0.4930	173	208	
95-AL2A	95.0	7	0.40	2.43	1.20	19.36 ± 0.30	467.1	27.90	0.3630	207	250	
120-AL2	120.0	19	0.40	2.43	1.20	20.80 ± 0.30	554.0	35.20	0.2880	237	289	
150-AL2	150.0	19	0.40	2.43	1.20	22.26 ± 0.30	650.0	43.40	0.2360	267	326	
150-AL7	150.0	19	0.40	2.43	1.20	22.26 - 0.2/+ 0.4	665.0	30.40	0.1980	291	356	
185-AL2	185.0	34	0.40	2.43	1.20	23.86 ± 0.30	771.2	54.30	0.1880	304	374	
240-AL2	240.0	34	0.40	2.43	1.20	26.16 ± 0.35	958.0	70.40	0.1450	354	438	

NOTE:

Current capacity based on referenced conductor temperature, 0.56 m/s wind, 0 m Elevation, 0.45 Emmisivity, 0.80 absorptivity, 45°C Ambient temperature, 1045 W/m² Solar radiation

Customized conductor sizes based on customer's requirement can also be designed.

MEDIUM VOLTAGE COVERED CONDUCTOR (MVCC) FOR 66KV



CODE NAME`	SECTIONAL AREA	STRANDI NG	INNER SEMICONDUCTIVE LAYER, THICKNESS, NOM	INNER XLPE COVERING, THICKNESS, NOM	OUTER UV-RESIST. XLPE-COVERING, THICKNESS, NOM	OVERALL DIAMETER	MASS PER UNIT LENGTH (APPROX)	RATED TENSILE STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
		MINIMUM NUMBER OF WIRES								@ 75°C	@ 85°C
35-AL2	(MM²) 35.0	(NO.) 7	(MM) 0.40	(MM) 3.60	(MM) 1.20	(MM) 17.3 ± 0.20	(KG/KM) 302.4	KN 10.30	(Ω/KM) 0.9860	(AMPERE) 114	(AMPERE) 136
50-AL2A	50.0	7	0.40	3.60	1.20	18.4 ± 0.20	354.1	14.20	0.7200	138	165
50-AL2B	50.0	7	0.40	3.60	1.20	18.4 ± 0.20	366.1	14.70	0.7200	138	165
70-AL2	70.0	7	0.40	3.60	1.20	20.1 ± 0.25	443.9	20.60	0.4930	173	208
95-AL2A	95.0	7	0.40	3.60	1.20	21.7 ± 0.30	540.3	27.90	0.3630	207	250
120-AL2	120.0	19	0.40	3.60	1.20	23.2 ± 0.30	649.8	35.20	0.2880	237	289
150-AL2	150.0	19	0.40	3.60	1.20	24.6 ± 0.30	754.7	43.40	0.2360	267	326
150-AL7	150.0	19	0.40	3.60	1.20	24.6 - 0.2/+ 0.4	769.7	30.40	0.1980	291	356
185-AL2	185.0	34	0.40	3.60	1.20	26.2 ± 0.30	861.5	54.30	0.1880	304	374
240-AL2	240.0	34	0.40	3.60	1.20	28.5 ± 0.35	1056.4	70.40	0.1450	354	438

NOTE:

Current capacity based on referenced conductor temperature, 0.56 m/s wind, 0 m Elevation, 0.45 Emmissivity, 0.80 absorptivity, 45°C Ambient temperature, 1045 W/m² Solar radiation

Customized conductor sizes based on customer's requirement can also be designed.

MEDIUM VOLTAGE COVERED CONDUCTOR (MVCC) FOR 11KV



CODE NAME	SECTIONAL AREA	STRANDING	INNER SEMICONDUCTIVE LAYER, THICKNESS, NOM	INNER XLPE COVERING, THICKNESS, NOM	OUTER UV-RESIST. XLPE-COVERING, THICKNESS, NOM	OVERALL DIAMETER	MASS PER UNIT LENGTH (APPROX)	RATED TENSILE STRENGTH	DC RESISTANCE @ 20°C	CURRENT CAPACITY	
		MINIMUM NUMBER OF WIRES								@ 75°C	@ 85°C
35-AL2	(MM ²) 35.0	(NO.) 7	(MM) 0.30	(MM) 1.20	(MM) 1.10	(MM) 12.1 ± 0.20	(KG/KM) 183.1	KN 10.30	(Ω/KM) 0.9860	(AMPERE) 114	(AMPERE) 136
50-AL2A	50.0	7	0.30	1.20	1.10	13.2 ± 0.20	226.3	14.20	0.7200	138	165
50-AL2B	50.0	7	0.30	1.20	1.10	13.2 ± 0.20	238.3	14.70	0.7200	138	165
70-AL2	70.0	7	0.30	1.20	1.10	14.90 ± 0.25	303.0	20.60	0.4930	173	208
95-AL2A	95.0	7	0.30	1.20	1.10	16.50 ± 0.30	387.0	27.90	0.3630	207	250
120-AL2	120.0	19	0.30	1.20	1.10	18.00 ± 0.30	482.4	35.20	0.2880	237	289
150-AL2	150.0	19	0.30	1.20	1.10	19.40 ± 0.30	557.4	43.40	0.2360	267	326
150-AL7	150.0	19	0.30	1.20	1.10	19.40 - 0.2/+ 0.4	572.4	30.40	0.1980	291	356
185-AL2	185.0	34	0.30	1.20	1.10	21.00 ± 0.30	674.6	54.30	0.1880	304	374
240-AL2	240.0	34	0.30	1.20	1.10	23.3 ± 0.35	701.1	70.40	0.1450	354	438

NOTE:

Current capacity based on referenced conductor temperature, 0.56 m/s wind, 0 m Elevation, 0.45 Emmissivity, 0.80 absorptivity, 45°C Ambient temperature, 1045 W/m² Solar radiation

Customized conductor sizes based on customer's requirement can also be designed.



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