



BARE OVERHEAD CONDUCTOR



**POWER
KABEL**

CONECTAMOS SOLUCIONES
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PRODUCTS SCOPE

- Overhead Aluminum Bare Conductor (AAC, AAAC, ACSR, ACAR, AACSR, ACSR/AW).
- Galvanized Steel Wire/Strand(GSW), Aluminum Clad Steel Wire/Strand(ACS).
- Aerial Bundled Cable 1kV-35kV(ABC overhead Cable, duplex, triplex, quadruplex service drop wire).
- PVC Insulated (Flexible) Wire and PVC Insulated and Sheathed (Armoured) Power Cable.
- Low,Medium, High Voltage (1kV-220kV) XLPE Insulated (Armoured) Power Cable.
- Rubber Cable, Welding Cable, Concentric Cable, Control Cable/Instrumental Cable.
- OPGW Cable, Fiber Optic Cable, Network Cable.





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All Aluminum Stranded Conductor



Application

Used for overhead transmission lines.

Construction

Aluminum 1350 wires are concentrically stranded and wrapped helically around a central wire.

Specification

AAC

ASTM B231

Code Name	Total Area		Stranding and Wire Diameter mm	Overall Diameter mm	Linear Mass kg/km	Nominal Breaking Load daN	Max. D.C. Resistance at 20°C Ω/km
	AWG or MCM	mm ²					
Peachbell	6	13.29	7/1.554	4.67	37	249	2.1692
Rose	4	21.16	7/1.961	5.89	58	396	1.3624
Lris	2	33.61	7/2.474	7.42	93	597	0.8577
Pansy	1	42.39	7/2.776	8.33	117	732	0.6801
Poppy	1/0	53.48	7/3.119	9.36	147	873	0.5390
Aster	2/0	67.42	7/3.503	10.51	186	1100	0.4276
Phlox	3/0	85.03	7/3.932	11.80	234	1347	0.3390
Oxlip	4/0	107.23	7/4.417	13.26	296	1698	0.2688
Valerian	250	126.71	19/2.913	14.57	349	2062	0.2275
Sneezewort	250	126.71	7/4.80	14.4	349	2007	0.2275
Laurel	266.8	135.16	19/3.01	15.05	373	2200	0.2133
Daisy	266.8	135.16	7/4.96	14.9	373	2141	0.2133
Peony	300	152.0	19/3.193	15.97	419	2403	0.1896
Tulip	336.4	170.45	19/3.381	16.91	470	2695	0.1691
Daffodil	350	177.35	19/3.447	17.24	489	2804	0.1625
Canna	397.5	201.42	19/3.673	18.36	555	3184	0.1431
Goldentuft	450	228	19/3.909	19.55	629	3499	0.1264
Syringa	477	241.68	37/2.882	20.19	666	3849	0.1193
Cosmos	477	241.68	19/4.023	20.12	666	3708	0.1193
Hyacinth	500	253.35	37/2.951	20.65	698	4035	0.1138
Zinnia	500	253.35	19/4.12	20.6	698	3888	0.1138
Dahlia	556.5	282	19/4.346	21.73	777	4327	0.1022
Mistletoe	556.5	282	37/3.114	21.79	777	4362	0.1022
Meadowsweet	600	304	37/3.233	22.63	838	4703	0.0948
Orchid	636	322.25	37/3.33	23.31	888	4985	0.0894
Heuchera	650	329.35	37/3.366	23.56	908	5095	0.0875
Flag	700	354.71	61/2.72	24.48	978	5146	0.0813
Verbena	700	354.71	37/3.493	24.45	978	5487	0.0813
Nasturtium	715.5	362.58	61/2.75	24.76	1000	5874	0.0795
Violet	715.5	362.85	37/3.533	24.74	1000	5609	0.0795
Cattail	750	380	61/2.817	25.35	1048	5985	0.0759
Petunia	750	380	37/3.617	25.32	1048	5875	0.0759
Lilac	795	402.84	61/2.90	26.11	1111	6345	0.0715
Arbutus	795	402.84	37/3.724	26.06	1111	6232	0.0715
Snapdragon	900	456.06	61/3.086	27.78	1257	6978	0.0632
Cockscomb	900	456.06	37/3.962	27.73	1257	6848	0.0632
Golden rod	954	483.42	61/3.177	28.6	1333	7896	0.0596
Magnolia	954	483.42	37/4.079	28.55	1333	7258	0.0596
Camellia	1000	506.71	61/3.251	29.36	1397	7753	0.0569
Hawkweed	1000	506.71	37/4.176	29.23	1397	7608	0.0569
Larkspur	1033.5	523.68	61/3.307	29.76	1444	8012	0.0550

AAC

Code Name	Nominal Aluminum Area mm ²	Stranding and Wire Diameter mm	Sectional Area mm ²	Overall Diameter mm	Linear Mass kg/km	Max.D.C. Resistance at 20°C Ω/km	Calculated Breaking Load daN	Final Modulus of Elasticity hbar	Coefficient Of Linear Expansion /°C
Midge	22	7/2.06	23.33	6.18	64	1.227	399	5900	23x10 ⁻⁶
Aphis	25	3/3.35	26.40	7.2	73	1.081	411	5900	23x10 ⁻⁶
Gnat	25	7/2.21	26.8	6.6	73	1.066	459	5900	23x10 ⁻⁶
Weevil	30	3/3.66	31.6	7.9	86	0.9082	486	5900	23x10 ⁻⁶
Mosquito	35	7/2.59	37.0	7.8	101	0.7762	603	5900	23x10 ⁻⁶
Ladybird	40	7/2.79	42.8	8.4	117	0.6689	687	5900	23x10 ⁻⁶
Ant	50	7/3.10	52.83	9.30	145	0.5419	828	5900	23x10 ⁻⁶
Fly	60	7/3.40	63.55	10.20	174	0.4505	990	5900	23x10 ⁻⁶
Bluebottle	70	7/3.66	73.7	11.0	202	0.3881	1134	5900	23x10 ⁻⁶
Earwing	75	7/3.78	78.5	11.4	215	0.3644	1194	5900	23x10 ⁻⁶
Grasshopper	80	7/3.91	84.1	11.7	230	0.3406	1278	5900	23x10 ⁻⁶
Clegg	90	7/4.17	95.6	12.5	262	0.2994	1453	5900	23x10 ⁻⁶
Wasp	100	7/4.39	106.0	13.17	290	0.2702	1600	5900	23x10 ⁻⁶
Beetle	100	19/2.67	106.0	13.4	293	0.2704	1742	5600	23x10 ⁻⁶
Bee	125	7/4.90	132.0	14.7	361	0.2169	1944	5900	23x10 ⁻⁶
Cricket	150	7/5.36	157.9	16.1	432	0.1818	2385	5900	23x10 ⁻⁶
Hornet	150	19/3.25	157.6	16.25	434	0.1825	2570	5600	23x10 ⁻⁶
Caterpillar	175	19/3.53	186	17.7	512	0.1547	2863	5600	23x10 ⁻⁶
Chafer	200	19/3.78	213.2	18.9	587	0.1349	3240	5600	23x10 ⁻⁶
Spider	225	19/3.99	236.9	20.0	652	0.1211	3601	5600	23x10 ⁻⁶
Cockroach	250	19/4.22	265.7	21.10	731	0.1083	4040	5600	23x10 ⁻⁶
Butterfly	300	19/4.65	322.7	23.25	888	0.08916	4875	5600	23x10 ⁻⁶
Moth	350	19/5.00	373.2	25.0	1027	0.07711	5637	5600	23x10 ⁻⁶
Drone	350	37/3.58	373.3	25.1	1029	0.07741	5745	5600	23x10 ⁻⁶
Locust	400	19/5.36	428.5	26.8	1179	0.06710	6473	5600	23x10 ⁻⁶
Centipede	400	37/3.78	415.2	26.46	1145	0.06944	6310	5600	23x10 ⁻⁶
Maybug	450	37/4.09	486.9	28.6	1342	0.05931	7401	5600	23x10 ⁻⁶
Scorpion	500	37/4.27	529.5	29.9	1460	0.05441	7998	5600	23x10 ⁻⁶
Cicada	600	37/4.65	628.6	32.6	1733	0.04588	9495	5600	23x10 ⁻⁶
Tarantula	750	37/5.23	794.6	36.6	2191	0.03627	12010	5600	23x10 ⁻⁶



AAC

CSA C49

Code Name	KCMIL or AWG	Aluminium Area mm ²	Size			Total Mass kg/km	Rated Tensile Strength kN	Max. D.C. Resistance at 20°C Ω/km
			No. of Wires	Wire Dia. mm	Conductor Dia. mm			
Peachbell	6	13.30	7	1.56	4.68	36.4	2.6	2.154
Rose	4	21.51	7	1.96	5.88	58.0	4.1	1.354
Lily	3	26.66	7	2.20	6.60	73.1	5.1	1.074
Iris	2	33.63	7	2.47	7.41	92.1	6.2	0.8516
Pansy	1	42.41	7	2.78	8.34	116.2	7.4	0.6752
Poppy	1/0	53.51	7	3.12	9.36	146.6	9.1	0.5351
Aster	2/0	67.44	7	3.50	10.50	184.8	11.4	0.4246
Phlox	3/0	85.03	7	3.93	11.78	233.0	14.0	0.3368
Oxlip	4/0	107.22	7	4.42	13.26	294	17.7	0.2671
Valerian	250	126.68	19	2.91	14.55	349	22.1	0.2271
Daisy	266.8	135.19	7	4.96	14.88	370	22.3	0.2118
Laurel	266.8	135.19	19	3.01	15.05	372	23.0	0.2128
Peony	300	152.01	19	3.19	15.95	419	25.8	0.1893
Tulip	336.4	170.46	19	3.38	16.90	469	29.0	0.1688
Daffodil	350	177.35	19	3.45	17.25	488	30.2	0.1622
Canna	397.5	201.42	19	3.67	18.35	555	34.2	0.1429
—	400	202.68	19	3.69	18.45	558	34.5	0.1420
Goldentuft	450	228.02	19	3.91	19.55	628	37.6	0.1262
Cosmos	477	241.70	19	4.02	20.10	666	39.8	0.1190
Zinnia	500	253.36	19	4.12	20.60	698	41.8	0.1136
—	550	278.69	37	3.10	21.70	769	47.5	0.1035
Dahlia	556.5	281.98	19	4.35	21.75	776	46.6	0.1020
Meadowsweet	600	304.03	37	3.23	22.61	839	51.5	0.09486
Orchid	636	322.27	37	3.33	23.31	890	54.8	0.08949
Heuchera	650	329.36	37	3.37	23.59	909	56.1	0.08757
Verbena	700	354.70	37	3.49	24.43	979	60.2	0.08131
Violet	715.5	362.55	37	3.53	24.71	1001	61.6	0.07955
Petunia	750	380.03	37	3.62	25.34	1049	64.7	0.07589
Arbutus	795	402.83	37	3.72	26.04	1112	68.4	0.07160
—	800	405.37	37	3.73	26.11	1119	68.7	0.07115
Anemone	874.5	443.12	37	3.90	27.30	1223	72.9	0.06509
Cockscomb	900	456.04	37	3.96	27.72	1259	75.2	0.06324
—	927.2	469.82	37	4.02	28.14	1297	77.5	0.06139
Magnolia	954	483.40	37	4.08	28.56	1334	79.8	0.05966
Hawkweed	1000	506.71	37	4.18	29.26	1399	83.8	0.05692
Bluebell	1033.5	523.68	37	4.25	29.75	1445	86.6	0.05507
—	1100	557.38	61	3.41	30.69	1541	94.7	0.05182
Marigold	1113	563.97	61	3.43	30.87	1559	95.8	0.05121
Hawthorn	1192.5	604.25	61	3.55	31.95	1670	103	0.04780
—	1200	608.05	61	3.56	32.04	1681	103	0.04750
Narcissus	1272	644.54	61	3.67	33.03	1782	110	0.04481
—	1300	658.72	61	3.71	33.39	1821	112	0.04385
Columbine	1351.5	684.82	61	3.78	34.02	1893	113	0.04218
—	1400	709.39	61	3.85	34.65	1961	117	0.04072
G [^] rnation	1431	725.10	61	3.89	35.01	2004	120	0.03983
—	1500	760.07	61	3.98	35.82	2101	125	0.03800
Gladiolus	1510.5	762.72	61	3.99	35.91	2110	123	0.03790
Coreopsis	1590	805.67	61	4.10	36.90	2227	133	0.03585
—	1600	810.74	61	4.11	36.99	2241	134	0.03563
—	1700	861.41	61	4.24	38.16	2381	142	0.03353
—	1800	912.08	91	3.57	39.27	2524	155	0.03170
Cowslip	2000	1013.42	91	3.77	41.47	2804	168	0.02853
Sagebrush	2250	1140.10	91	3.99	43.89	3155	188	0.02536
—	2435.6	1234.14	91	4.16	45.76	3415	204	0.02343
Lupine	2500	1266.78	91	4.21	46.31	3505	209	0.02283
Bitterroot	2750	1393.45	91	4.42	48.62	3856	230	0.02075
—	3000	1520.13	91	4.61	50.71	4207	251	0.01902
—	3007.7	1524.03	91	4.62	50.82	4217	252	0.01897
—	3500	1773.49	91	4.98	54.78	4908	292	0.01630
—	3640	1844.42	91	5.08	55.88	5104	304	0.01568

AAC

Code Number	Area	Number of Wires	Diameter		Linear Mass	Rated Tensile Strength	Max.D.C. Resistance at 20°C
			Wire	Cond.			
	mm ²		mm	mm	kg/km	kN	Ω/km
10	10	7	1.35	4.05	27.4	1.95	2.8633
16	16	7	1.71	5.12	43.8	3.04	1.7896
25	25	7	2.13	6.40	68.4	4.50	1.1453
40	40	7	2.70	8.09	109.4	6.80	0.7158
63	63	7	3.39	10.2	172.3	10.39	0.4545
100	100	19	2.59	12.9	274.8	17.00	0.2877
125	125	19	2.89	14.5	343.6	21.25	0.2302
160	160	19	3.27	16.4	439.8	26.40	0.1798
200	200	19	3.66	18.3	549.7	32.00	0.1439
250	250	19	4.09	20.5	687.1	40.00	0.1151
315	315	37	3.29	23.0	867.9	51.97	0.0916
400	400	37	3.71	26.0	1102.0	64.00	0.0721
450	450	37	3.94	27.5	1239.8	72.00	0.0641
500	500	37	4.15	29.0	1377.6	80.00	0.0577
560	560	37	4.39	30.7	1542.9	89.60	0.0515
630	630	61	3.63	32.6	1738.3	100.08	0.0458
710	710	61	3.85	34.6	1959.1	113.60	0.0407
800	800	61	4.09	36.8	2207.4	128.00	0.0361
900	900	61	4.33	39.0	2483.3	144.00	0.0321
1000	1000	61	4.57	41.1	2759.2	160.00	0.0289
1120	1120	91	3.96	43.5	3093.5	179.20	0.0258
1250	1250	91	4.18	46.0	3452.6	200.00	0.0231
1400	1400	91	4.43	48.7	3866.9	224.00	0.0207
1500	1500	91	4.58	50.4	4143.1	240.00	0.0193

AAC

DIN 48201

Code Number	Calculated Area	Stranding and Wire Diameter	Overall Diameter	Linear Mass	Calculated Breaking Load	Max.D.C. Resistance at 20°C
mm ²	mm ²	mm	mm	kg/km	kN	Ω/km
16	15.89	7/1.70	5.1	44	290	1.8018
25	24.25	7/2.10	6.3	67	425	1.1808
35	34.36	7/2.50	7.5	94	585	0.8332
50	49.48	7/3.00	9.0	135	810	0.5786
50	48.36	19/1.80	9.0	133	860	0.5950
70	65.82	19/2.10	10.5	181	1150	0.4371
95	93.27	19/2.50	12.5	256	1595	0.3084
120	117.00	19/2.80	14.0	322	1910	0.2459
150	147.10	37/2.25	15.2	406	2570	0.1960
185	181.60	37/2.50	17.5	501	3105	0.1587
240	242.54	61/2.25	20.2	670	4015	0.1191
300	299.43	61/2.50	22.5	827	4850	0.09650
400	400.14	61/2.89	26.0	1105	6190	0.07221
500	499.83	61/3.23	29.1	1381	7600	0.05781
625	626.20	91/2.96	32.6	1733	9690	0.04625
800	802.10	91/3.35	36.8	2219	12055	0.03611
1000	999.71	91/3.74	41.1	2766	14845	0.02897

All Aluminium Alloy Conductor



Application

Used for overhead transmission lines.

Construction

Standard 6201 high strength aluminum-Magnesium-Silicon Alloy conductors, conforming to ASTM Specification B-399, are concentric-lay-stranded.

Specification

AAAC

ASTM B399

Code Name	Area		Size & Stranding of ACSR With Equal Diameter		No. and Diameter of Wires mm	Overall Diameter mm	Weight kg/km	Nominal Breaking Load kN	Standard Length m ±5%
	Nominal MCM	Actual mm ²	AWG or MCM	Al/Steel					
Akron	30.58	15.48	6	6/1	7/1.68	5.04	42.7	4.92	3000
Alton	48.69	24.71	4	6/1	7/2.12	6.35	68.0	7.84	3000
Ames	77.47	39.22	2	6/1	7/2.67	8.02	108	12.45	2000
Azusa	123.3	62.38	1/0	6/1	7/3.37	10.11	172	18.97	2000
Anaheim	155.4	78.65	2/0	6/1	7/3.78	11.35	217	23.93	3000
Amherst	195.7	99.22	3/0	6/1	7/4.25	12.75	273	30.18	2500
Alliance	246.9	125.1	4/0	6/1	7/4.77	14.31	345	38.05	2000
Butte	312.8	158.6	266.8	26/7	19/3.26	16.30	437	48.76	3000
Canton	394.5	199.9	336.4	26/7	19/3.66	18.30	551	58.91	2500
Cairo	465.4	235.8	397.5	26/7	19/3.98	19.88	650	69.48	2000
Darien	559.5	283.5	477	26/7	19/4.36	21.79	781	83.52	2000
Elgin	652.4	330.6	556.5	26/7	19/4.71	23.54	911	97.42	1500
Flint	740.8	375.3	636	26/7	37/3.59	25.16	1035	108.21	3000
Greely	927.2	469.8	795	26/7	37/4.02	28.14	1295	135.47	2500

AAAC

ASTM B399

Area		Stranding and Wire Diameter mm	Approx Overall Diameter mm	Weight kg/km	Nominal Breaking Load kN	Max. D.C. Resistance at 20°C Ω/km	Standard Length m ± 5%
Nominal AWG or MCM	Actual mm ²						
6	13.30	7/1.554	4.67	37	4.22	2.5199	3500
4	21.15	7/1.961	5.89	58	6.71	1.5824	3000
2	33.63	7/2.474	7.42	93	10.68	0.9942	2500
1/0	53.48	7/3.119	9.36	148	16.97	0.6256	2000
2/0	67.42	7/3.503	10.51	186	20.52	0.4959	3500
3/0	85.03	7/3.932	11.80	234	25.86	0.3936	3000
4/0	107.23	7/4.417	13.26	296	32.63	0.3119	2000
250	126.66	19/2.913	14.57	349	38.93	0.2642	2000
300	152.10	19/3.193	15.97	419	46.77	0.2199	3000
350	177.35	19/3.447	17.24	489	52.25	0.1887	3000
400	202.71	19/3.686	18.43	559	59.74	0.1650	2500
450	228.00	19/3.909	19.55	629	67.19	0.1467	2000
500	253.35	19/4.120	20.60	698	74.64	0.1321	2000
550	278.60	37/3.096	21.67	768	83.80	0.1202	2000
600	303.80	37/3.233	22.63	838	91.38	0.1102	2000
650	329.25	37/3.366	23.56	908	97.94	0.1016	2000
700	354.55	37/3.493	24.45	978	102.20	0.0944	3500
750	380.20	37/3.617	25.32	1049	109.60	0.0880	3000
800	405.15	37/3.734	26.14	1117	116.80	0.0826	3000
900	456.16	37/3.962	27.73	1258	131.50	0.0733	3000
1000	506.71	37/4.176	29.23	1399	146.10	0.0660	2500

All Aluminium Alloy Conductor

AAAC

BS EN 50183

Code Name	Calculated Area	No. of Wires	Diameter		Weight	Rated Strength	Max. D.C. Resistance at 20°C	Carrying Capacity
			Wire	Cond				
	mm ²		mm	mm	kg/km	kN	Ω/km	A
Box	18.8	7	1.85	5.55	51.4	5.55	1.7480	93
Acacia	23.8	7	2.08	6.24	64.9	7.02	1.3828	110
Almond	30.1	7	2.34	7.02	82.2	8.88	1.0926	128
Cedar	35.5	7	2.54	7.62	96.8	10.46	0.9273	132
Deodar	42.2	7	2.77	8.31	115.2	12.44	0.7797	148
Fir	47.8	7	2.95	8.85	130.6	14.11	0.6875	161
Hazel	59.9	7	3.30	9.90	163.4	17.66	0.5494	184
Pine	71.6	7	3.61	10.8	195.6	21.14	0.4591	204
Holly	84.1	7	3.91	11.7	229.5	24.79	0.3913	222
Willow	89.7	7	4.04	12.1	245.0	26.47	0.3665	233
Oak	118.9	7	4.65	14.0	324.5	35.07	0.2767	272
Mulberry	150.9	19	3.18	15.9	414.3	44.52	0.2192	319
Ash	180.7	19	3.48	17.4	496.1	53.31	0.1830	354
Elm	211.0	19	3.76	18.8	579.2	62.24	0.1568	385
Poplar	239.4	37	2.87	20.1	659.4	70.61	0.1387	414
Sycamore	303.2	37	3.23	22.6	835.2	89.40	0.1095	487
Upas	362.1	37	3.53	24.7	997.5	106.82	0.0917	527
Yew	479.0	37	4.06	28.4	1319.6	141.31	0.0693	629
Totara	498.1	37	4.14	29.0	1372.1	146.93	0.0666	640
Rubus	586.9	61	3.50	31.5	1622.0	173.13	0.0567	716
Sorbus	659.4	61	3.71	33.4	1822.5	194.53	0.0505	760
Araucaria	821.1	61	4.14	37.3	2269.4	242.24	0.0406	842
Redwood	996.2	61	4.56	41.0	2753.2	293.88	0.0334	920

All Aluminium Alloy Conductor

BS 3242

AAAC

Code Name	Nominal Area	Stranding	Sectional Area	Diameter of Conductor	Linear Mass	Rated Strength	Max.D.C. Resistance at 20°C
	mm ²	No./mm	mm ²	mm	kg/km	kgf	Ω/km
Box	15	7/1.85	18.82	5.55	51	537	1.7495
Acacia	20	7/2.08	23.79	6.24	65	680	1.3840
Almond	25	7/2.34	30.10	7.02	82	861	1.0934
Cedar	30	7/2.54	35.47	7.62	97	1014	0.9281
—	35	7/2.77	42.18	8.31	115	1205	0.7804
Fir	40	7/2.95	47.87	8.85	131	1367	0.6880
Hazel	50	7/3.30	59.87	9.9	164	1711	0.5498
Pine	60	7/3.61	71.65	10.83	196	2048	0.4594
—	70	7/3.91	84.05	11.73	230	2402	0.3917
Willow	75	7/4.04	89.73	12.12	245	2565	0.3669
—	80	7/4.19	96.52	12.57	264	2758	0.3441
—	90	7/4.44	108.00	13.32	298	3112	0.3023
Oak	100	7/4.65	118.90	13.95	325	3398	0.2769
—	100	19/2.82	118.70	14.1	326	3393	0.2787
Mulberry	125	19/3.18	150.90	15.9	415	4312	0.2192
Ash	150	19/3.48	180.70	17.4	497	5164	0.1831
Elm	175	19/3.76	211.00	18.8	580	6030	0.1568
Poplar	200	37/2.87	239.40	20.09	659	8841	0.1385
—	225	37/3.05	270.30	21.35	744	7724	0.1227
Sycamore	250	37/3.22	303.20	22.54	835	8664	0.1093
Upas	300	37/3.53	362.10	24.71	997	10350	0.09156
Walnut	350	37/3.81	421.80	26.67	1162	12053	0.07860
Yew	400	37/4.06	479.00	28.42	1319	13685	0.06921
Totara	425	37/4.14	498.10	28.98	1372	14233	0.06656
Rubus	500	61/3.50	586.90	31.5	1620	16771	0.05662
Araucaria	700	61/4.14	821.10	37.26	2266	23450	0.04047

All Aluminium Alloy Conductor

AAAC(Characteristics of A2 Conductors)

IEC 61089

Code Number	Calculated Area	Number of Wires	Diameter of Wire	Diameter of Cond.	Linear Mass	Rated Strength	Max.D.C. Resistance at 20°C
	mm ²	mm ²	mm	mm	kg/km	daN	Ω/km
16	18.4	7	1.83	5.49	50.4	5.43	1.7896
25	28.8	7	2.29	6.87	78.7	8.49	1.1453
40	46.0	7	2.89	8.67	125.9	13.58	0.7158
63	72.5	7	3.63	10.8	198.3	21.39	0.4545
100	115	19	2.78	13.9	316.3	33.95	0.2877
125	144	19	3.10	15.5	395.4	42.44	0.2302
160	184	19	3.51	17.55	506.1	54.32	0.1798
200	230	19	3.93	19.65	623.7	67.91	0.1439
250	288	19	4.39	21.95	790.8	84.68	0.1151
315	363	37	3.53	24.71	998.9	106.95	0.0916
400	460	37	3.98	27.86	1268.4	135.81	0.0721
450	518	37	4.22	29.54	1426.9	152.79	0.0641
500	575	37	4.45	31.15	1585.5	169.76	0.0577
560	645	61	3.67	33.03	1778.4	190.14	0.0516
630	725	61	3.89	35.01	2000.7	213.90	0.0458
710	817	61	4.13	37.17	2254.8	241.07	0.0407
800	921	61	4.38	39.42	2540.6	271.62	0.0361
900	1036	91	3.81	41.91	2861.1	305.58	0.0632
1000	1151	91	4.01	44.11	3179.0	339.53	0.0289
1120	1289	91	4.25	46.75	3560.5	380.27	0.0258
1250	1439	91	4.49	49.39	3973.7	424.41	0.0231

All Aluminium Alloy Conductor

AAAC(Characteristics of A3 Conductors)

IEC 61089

Code Number	Calculated Area	Number of Wires	Diameter of Wire	Overall Diameter of Conductor	Linear Mass	Rated Tensile Strength	Max.D.C. Resistance at 20°C
mm ²	mm ²		mm	mm	kg/km	daN	Ω/km
16	18.6	7	1.84	5.52	50.8	6.04	1.7896
25	29.0	7	2.30	6.90	79.5	9.44	1.1453
40	46.5	7	2.91	8.73	127.1	15.1	0.7158
63	73.2	7	3.65	10.95	200.2	23.06	0.4545
100	116	19	2.79	13.95	319.3	37.76	0.2877
125	145	19	3.12	15.6	399.2	47.20	0.2302
160	186	19	3.53	17.65	511.0	58.56	0.1798
200	232	19	3.95	19.75	638.7	73.20	0.1439
250	290	19	4.41	22.05	798.4	91.50	0.1151
315	366	37	3.55	24.85	1008.4	115.29	0.0916
400	465	37	4.00	28.0	1280.5	146.40	0.0721
450	523	37	4.24	29.68	1440.5	164.70	0.0641
500	581	37	4.47	31.29	1600.6	183.00	0.0577
560	651	61	3.69	33.21	1795.3	204.95	0.0516
630	732	61	3.91	35.19	2019.8	230.58	0.0458
710	825	61	4.15	37.35	2276.2	259.86	0.0407
800	930	61	4.40	39.6	2564.8	282.80	0.0361
900	1046	91	3.83	42.13	2888.3	329.40	0.0321
1000	1162	91	4.03	44.33	3209.3	366.00	0.0289
1120	1301	91	4.27	46.97	3594.4	409.92	0.0258

All Aluminium Alloy Conductor

AAAC

DIN 48201

Code Number	Calculated Area	Number of Wires	Diameter of Wire	Overall Diameter of Conductor	Linear Mass	Rated Tensile Strength	Max.D.C. Resistance at 20°C
mm ²	mm ²		mm	mm	kg/km	daN	Ω/km
16	15.89	7	1.70	5.1	43	444	2.0910
25	24.25	7	2.10	6.3	66	677	1.3703
35	34.36	7	2.50	7.5	94	960	0.9669
50	49.48	7	3.00	9.0	135	1382	0.6714
50	48.35	19	1.80	9.0	133	1350	0.6905
70	65.81	19	2.10	10.5	181	1838	0.5073
95	93.27	19	2.50	12.5	256	2605	0.3579
120	116.99	19	2.80	14.0	322	3268	0.2854
150	147.11	37	2.25	15.8	406	4109	0.2274
185	181.62	37	2.50	17.5	500	5073	0.1842
240	242.54	61	2.25	20.3	670	6774	0.1383
300	299.43	61	2.50	22.5	827	8363	0.1120
400	400.14	61	2.89	26.0	1104	11176	0.0838
500	499.63	61	3.23	29.1	1379	13960	0.06709
625	626.20	91	2.96	32.6	1732	17490	0.0540
800	802.09	91	3.35	36.9	2218	22402	0.0418
1000	999.71	91	3.74	41.1	2767	27922	0.0335

Aluminium Conductor Steel Reinforced



Application

Used for overhead transmission lines.

Construction

Aluminum 1350 wires and the steel cores are concentrically stranded and wrapped helically around a central wire.

Specification

ACSR

ASTM B232

Code Name	Calculated Area				Stranding and Wire Diameter		Approx. Overall Diameter	Weight			Nominal Breaking Load	Max. D.C. Resistance at 20°C	Standard Length
	Nominal	Alum.	Steel	Total	Alum.	Steel		Alum.	Steel	Total			
	AWG or MCM	mm ²	mm ²	mm ²	mm	mm		kg/km	kg/km	kg/km			
Turkey	6	13.29	2.19	15.48	6/1.68	1/1.68	5.04	37	17	54	5.24	2.1586	3000
Swan	4	21.16	3.55	24.71	6/2.12	1/2.12	6.36	58	27	85	8.32	1.3557	3000
Swanate	4	21.16	5.35	26.51	7/1.96	1/2.61	6.53	58	42	100	10.53	1.3557	3000
Sparrow	2	33.61	5.61	39.22	6/2.67	1/2.67	8.01	92	44	136	12.70	0.8535	3000
Sparate	2	33.61	8.52	42.13	7/2.47	1/3.30	8.24	92	67	159	16.11	0.8535	2500
Robin	1	42.39	7.10	49.49	6/3.00	1/3.00	9.00	116	55	171	15.85	0.6767	2500
Raven	1/0	53.48	8.90	62.38	6/3.37	1/3.37	10.11	147	69	216	19.32	0.5364	2000
Quail	2/0	67.42	11.23	78.65	6/3.78	1/3.78	11.34	185	88	273	23.62	0.4255	3000
Pigeon	3/0	85.03	14.19	99.22	6/4.25	1/4.25	12.75	233	110	343	29.41	0.3373	2500
Penguin	4/0	107.23	17.87	125.10	6/4.77	1/4.77	14.31	294	139	433	37.06	0.2675	2000
Waxwing	266.8	135.16	7.48	142.64	18/3.09	1/3.09	15.45	373	58	431	30.27	0.2133	3500
Partridge	266.8	135.16	22.00	157.16	26/2.57	7/2.00	16.28	374	172	546	50.29	0.2143	2500
Ostrich	300	152.00	24.71	176.71	26/2.73	7/2.12	17.28	421	193	614	56.52	0.1906	3000
Merlin	336.4	170.45	9.48	179.93	18/3.47	1/3.47	17.5	470	74	544	38.23	0.1691	2000
Linnet	336.4	170.45	27.81	198.26	26/2.89	7/2.25	18.31	472	217	689	62.71	0.1699	2500
Oriole	336.4	170.45	39.81	210.26	30/2.69	7/2.69	18.83	743	311	784	77.27	0.1704	3000
Chickadee	397.5	201.42	11.16	212.58	18/3.77	1/3.77	18.85	555	87	642	43.99	0.1431	2500
Brant	397.5	201.42	26.13	227.55	24/3.27	7/2.18	19.61	558	204	762	64.69	0.1438	2000
Ibis	397.5	201.42	32.77	234.19	26/3.14	7/2.44	19.88	558	256	814	72.11	0.1438	2500
Lark	397.5	201.42	46.97	248.39	30/2.92	7/2.92	20.44	560	367	927	88.69	0.1442	2500
Pelican	477	241.68	13.42	255.10	18/4.14	1/4.14	20.70	666	105	771	52.16	0.1193	2000
Flicker	477	241.68	31.29	272.97	24/3.58	7/2.39	21.49	670	245	915	76.66	0.1199	3000
Hawk	477	241.68	39.42	281.10	26/3.44	7/2.67	21.79	670	308	978	86.65	0.1199	2000

ACSR

ASTM B232

Code Name	Calculated Area				Stranding and Wire Diameter		Approx. Overall Diameter	Weight			Nominal Breaking Load	Max. D.C. Resistance at 20°C	Standard Length
	Nominal AWG or MCM	Alum. mm ²	Steel mm ²	Total mm ²	Alum. mm	Steel mm		Alum. kg/km	Steel kg/km	Total kg/km			
Hen	477	241.68	56.39	298.07	30/3.20	7/3.20	22.40	671	441	1112	105.34	0.1201	2000
Osprey	556.5	282.00	15.68	297.68	18/4.47	1/4.47	22.35	777	122	899	60.88	0.1022	2000
Parakeet	556.5	282.00	36.58	318.58	24/3.87	7/2.58	23.22	781	286	1067	88.22	0.1027	3000
Dove	556.5	282.00	45.94	327.94	26/3.72	7/2.89	23.55	781	359	1140	101.03	0.1027	3000
Eagle	556.5	282.00	65.81	347.81	30/3.46	7/3.46	24.21	783	515	1298	122.92	0.1030	3500
Peacock	605	306.58	39.74	346.32	24/4.03	7/2.69	24.20	849	311	1160	95.88	0.0945	3000
Squab	605	306.58	49.94	356.52	26/3.87	7/3.01	24.51	850	390	1240	108.14	0.0945	3000
WoodDuck	605	306.58	71.55	378.13	30/3.61	7/3.61	25.25	851	560	1411	128.84	0.0947	3000
Teal	605	306.58	69.87	376.45	30/3.61	19/2.16	25.24	851	548	1399	133.59	0.0947	2000
Kingbird	636	322.26	17.90	340.16	18/4.78	1/4.78	23.88	889	139	1028	69.55	0.08960	2000
Rook	636	322.26	41.81	364.07	24/4.14	7/2.76	24.84	893	326	1219	103.00	0.08989	2500
Grosbeak	636	322.26	52.45	374.71	26/3.97	7/3.09	25.15	893	409	1302	111.80	0.08989	3000
Scoter	636	322.26	75.22	397.48	30/3.70	7/3.70	25.88	895	589	1484	135.44	0.09011	3000
Egret	636	322.26	73.55	395.81	30/3.70	19/2.22	25.90	894	576	1470	140.30	0.09011	3000
Swift	636	322.26	8.96	331.22	36/3.38	1/3.38	23.62	888	70	958	143.00	0.08984	2000
Flamingo	666.6	337.74	43.81	381.55	24/4.23	7/2.82	25.40	936	342	1278	105.66	0.08577	2500
Gannet	666.6	337.74	55.03	392.77	26/4.07	7/3.16	25.76	936	429	1365	117.33	0.08577	2500
Stilt	715.5	362.58	46.97	409.55	24/4.39	7/2.92	26.31	1005	367	1372	113.35	0.07989	2000
Starling	715.5	362.58	59.03	421.61	26/4.21	7/3.28	26.68	1005	461	1466	125.91	0.07989	2500
Redwing	715.5	362.58	82.58	445.16	30/3.92	19/2.35	27.43	1006	647	1653	153.94	0.08009	2000
Tern	795	402.84	27.87	430.71	45/3.38	7/2.25	27.03	1116	217	1333	97.37	0.07191	2500
Condor	795	402.84	52.19	455.03	54/3.08	7/3.08	27.72	1116	408	1524	124.45	0.07191	3000
Cuckoo	795	402.84	52.19	455.03	24/4.62	7/3.08	27.74	1116	408	1524	123.94	0.07191	2000
Drake	795	402.84	65.61	468.35	26/4.44	7/3.45	28.11	1116	512	1628	139.92	0.7191	2000
Coot	795	402.84	11.16	414	36/3.77	1/3.77	26.41	1110	88	1198	74.34	0.07156	3000
Mallard	795	402.84	91.87	494.71	30/4.14	19/2.48	28.96	1119	719	1838	171.18	0.07208	2500
Ruddy	900	456.06	31.54	487.60	45/3.59	7/2.40	28.73	1263	247	1510	108.96	0.06351	2000
Canary	900	456.06	59.10	515.16	54/3.28	7/3.28	29.52	1263	461	1724	140.95	0.06351	2000
Rail	954	483.42	33.42	516.84	45/3.70	7/2.47	29.61	1339	262	1601	115.63	0.05992	2000
Catbird	954	483.42	13.42	496.84	36/4.14	1/4.14	28.95	1333	105	1438	87.66	0.05962	2500
Cardinal	954	483.42	62.65	546.07	54/3.38	7/3.38	30.42	1399	490	1829	149.36	0.05992	2500
Ortlan	1003.5	523.68	36.19	559.87	45/3.85	7/2.57	30.81	1451	283	1734	123.10	0.05531	2000
Tanger	1003.5	523.68	14.51	538.19	36/4.30	1/4.30	30.12	1443	113	1556	94.93	0.05504	2000
Curlew	1033.5	523.68	67.87	591.55	54/3.52	7/3.52	31.68	1451	530	1981	161.80	0.05531	2000
Bluejay	1113	563.93	39.03	602.96	45/4.00	7/2.66	31.98	1563	385	1868	132.63	0.05136	2500
Finch	1113	563.93	71.55	635.48	54/3.65	19/2.19	32.85	1570	560	2130	174.41	0.05161	2000
Bunting	1 192.5	604.26	41.55	645.81	45/4.14	7/2.76	33.12	1674	327	2001	141.79	0.04793	2500
Grackle	1 192.5	604.26	76.58	680.84	54/3.77	19/2.27	33.97	1682	600	2282	186.38	0.04817	2000
Bittern	1272	644.51	44.52	689.03	45/4.27	7/2.85	34.17	1785	349	2134	151.48	0.04494	2500
Pheasant	1272	644.51	81.68	726.19	54/3.90	19/2.34	35.10	1795	638	2433	194.00	0.04516	2000
Skylark	1272	644.51	17.87	662.38	36/4.78	1/4.78	33.42	1777	140	1917	115.85	0.04472	2000
Dipper	1351.5	684.84	47.10	731.94	45/4.40	7/2.92	35.16	1898	368	2266	160.70	0.04230	2000
Martin	1351.5	684.84	86.71	771.55	54/4.02	19/2.41	36.17	1906	679	2585	206.05	0.04250	2000
Bobolink	1431	725.10	50.32	775.42	45/4.53	7/3.02	36.24	2009	393	2402	170.71	0.03994	2000
Plover	1431	725.10	91.87	816.97	54/4.14	19/2.48	37.24	2019	719	2738	218.24	0.04013	2500
Nuthatch	1510.5	765.35	52.90	818.25	45/4.65	7/3.10	37.20	2120	414	2534	177.89	0.03784	2000
Parrot	1510.5	765.35	96.84	862.19	54/4.25	19/2.55	38.25	2131	759	2890	230.20	0.03802	2000
Lapwing	1590	805.68	55.48	861.16	45/4.77	7/3.18	38.16	2232	435	2667	187.02	0.03595	2000
Falcon	1590	805.68	102.13	907.81	54/4.36	19/2.62	39.26	2243	799	3042	242.55	0.03613	2000
High Strength Stranding													
Grouse	80	40.52	14.13	54.65	8/2.54	1/4.24	9.32	112	110	222	23.60	0.7115	2500
Petrel	101.8	51.61	30.06	81.67	12/2.34	7/2.34	11.71	143	235	378	41.75	0.5613	2000
Minorca	110.8	56.13	32.77	88.90	12/2.44	7/2.44	12.22	156	256	412	51.25	0.5161	2000
Leghorn	134.6	68.19	39.81	108.00	12/2.69	7/2.69	13.46	189	311	500	61.70	0.4248	2000
Guinea	159	80.58	46.97	127.55	12/2.92	7/2.92	14.63	223	367	590	72.55	0.3595	2000
Dotterel	176.9	89.48	52.19	141.67	12/3.08	7/3.08	15.42	248	409	657	78.50	0.3237	2000
Dorking	190.8	96.71	56.39	153.10	12/3.20	7/3.20	16.03	268	441	709	84.80	0.2995	3000
Brahma	203.2	102.97	91.87	194.84	16/2.86	19/2.48	18.14	285	722	1007	128.80	0.2813	2500
Cochin	211.3	107.10	62.45	169.55	12/3.37	7/3.37	16.84	297	488	785	93.90	0.2705	3000

Aluminium Conductor Steel Reinforced

ACSR

BS 215 Part 2

Code Name	Area			Stranding		Approx. Overall Diameter	Weight			Nominal Breaking Load	Max. D.C. Resistance at 20°C	
	Nominal Alum.	Alum.	Steel	Total	Alum.		Steel	Alum.	Steel			Total
	mm ²	mm ²	mm ²	mm ²	mm	mm	mm	kg/km	kg/km	kg/km	kN	Ω/km
Mole	10	10.62	1.77	12.39	6/1.50	1/1.50	4.50	29	14	43	4.14	2.076
Squirrel	20	20.94	3.49	24.43	6/2.11	1/2.11	6.33	58	27	85	7.88	1.368
Gopher	25	26.25	4.37	30.62	6/2.36	1/2.36	7.08	72	34	106	9.61	1.093
Weasel	30	31.61	5.27	36.88	6/2.59	1/2.59	7.77	87	41	128	11.45	0.9077
Fox	35	36.66	6.11	42.77	6/2.79	1/2.79	8.37	101	48	149	13.20	0.7822
Ferret	40	42.41	7.07	49.48	6/3.00	1/3.00	9.00	117	55	172	15.20	0.6766
Rabbit	50	52.88	8.28	61.70	6/3.35	1/3.35	10.05	145	69	214	18.35	0.5426
Mink	60	63.18	10.53	73.71	6/3.66	1/3.66	10.98	173	82	255	21.80	0.4545
Skunk	60	63.27	36.93	100.30	12/2.59	7/2.59	12.95	175	290	465	53.00	0.4567
Beaver	70	74.82	12.47	87.29	6/3.99	1/3.99	11.97	205	97	302	25.70	0.3825
Horse	70	73.37	42.80	116.17	12/2.79	7/2.79	13.95	203	335	538	61.20	0.3936
Raccoon	75	79.20	13.20	92.40	6/4.10	1/4.10	12.30	217	103	320	27.20	0.3622
Otter	80	83.88	13.98	97.86	6/4.22	1/4.22	12.66	230	109	339	28.80	0.3419
Cat	90	95.40	15.90	111.30	6/4.50	1/4.50	13.50	262	124	386	32.70	0.3007
Hare	100	105.00	17.50	122.50	6/4.72	1/4.72	14.16	288	137	425	36.00	0.2733
Dog	100	105.00	13.50	118.50	6/4.72	7/1.57	14.15	288	106	394	32.70	0.2733
Hyena	100	105.80	20.44	126.20	7/4.39	7/1.93	14.57	290	160	450	40.90	0.2712
Leopard	125	131.30	16.80	148.10	6/5.28	7/1.75	15.81	360	132	492	40.70	0.2184
Coyote	125	132.10	20.10	152.20	26/2.54	7/1.91	15.89	365	157	522	46.40	0.2187
Cougar	125	130.30	7.25	137.50	18/3.05	1/3.05	15.25	362	57	419	29.80	0.2189
Tiger	125	131.10	30.60	161.70	30/2.36	7/2.36	16.52	362	240	602	58.00	0.2202
Wolf	150	158.00	36.90	194.90	30/2.59	7/2.59	18.13	437	289	726	69.20	0.1828
Dingo	150	158.70	8.80	167.50	18/3.35	1/3.35	16.75	437	69	506	35.70	0.1815
Lynx	175	183.40	42.80	226.20	30/2.79	7/2.79	19.53	507	335	842	79.80	0.1576
Caracal	175	184.20	10.30	194.50	18/3.61	1/3.61	18.05	507	80	587	41.10	0.1563
Panther	200	212.00	49.50	261.50	30/3.00	7/3.00	21.00	586	388	974	92.25	0.1363
Lion	255	238.50	55.60	294.20	30/3.18	7/3.18	22.26	659	436	1095	109.60	0.1212
Bear	250	264.00	61.60	325.60	30/3.35	7/3.35	23.45	730	483	1213	111.10	0.1093
Goat	300	324.30	75.70	400.00	30/3.71	7/3.71	25.97	896	593	1489	135.70	0.0891
Sheep	350	374.10	87.30	461.40	30/3.99	7/3.99	27.93	1034	684	1718	155.90	0.07704
Antelope	350	373.10	48.40	421.50	54/2.97	7/2.97	26.73	1032	379	1411	118.20	0.07727
Bison	350	381.80	49.50	431.30	54/3.00	7/3.00	27.00	1056	388	1444	120.90	0.07573
Jaguar	200	210.60	11.70	222.30	18/3.86	1/3.86	19.3	580	91	671	46.55	0.13670
Deer	400	429.30	100.20	529.50	30/4.27	7/4.27	29.89	1186	785	1971	178.50	0.06726
Zebra	400	428.90	55.60	484.50	54/3.18	7/3.18	28.62	1186	435	1621	131.90	0.06740
Elk	450	477.00	111.30	588.30	30/4.50	7/4.50	31.50	1318	872	2190	198.20	0.06056
Camel	450	475.20	61.60	536.80	54/3.35	7/3.35	30.15	1314	483	1797	145.70	0.06073
Moose	500	528.70	68.50	597.20	54/3.53	7/3.53	31.77	1462	537	1999	161.10	0.05470

ACSR

CSA C49

Code Name	KCMIL or AWG	Area		Steel Ratio	Stranding				Core Dia.	Overall Dia.	Linear Mass	Rated Tensile Strength	Max. D.C. Resistance at 20°C
		Alum.	Total		Alum. Wire		Steel Wire						
					No.	Dia.	No.	Dia.					
		mm ²	mm ²	%		mm		mm	mm	kg/km	kN	Ω/km	
Wren	8	9.37	9.76	17	6	1.33	1	1.33	1.33	3.99	33.8	3.29	3.430
Warbler	7	10.55	12.32	17	6	1.50	1	1.50	1.50	4.50	42.8	4.14	2.720
Turkey	6	13.30	15.51	17	6	1.68	1	1.68	1.68	5.04	53.8	5.19	2.158
Thrush	5	16.77	19.57	17	6	1.89	1	1.89	1.89	5.67	67.9	6.56	1.711
Swan	4	21.15	24.68	17	6	2.12	1	2.12	2.12	6.36	85.6	8.15	1.357
Swallow	3	26.66	31.11	17	6	2.38	1	2.38	2.38	7.14	107.9	10.0	1.076
Sparrow	2	33.63	39.22	17	6	2.67	1	2.67	2.67	8.01	136.0	12.4	0.8534
Robin	1	42.41	49.48	17	6	3.00	1	3.00	3.00	9.00	171.6	15.3	0.6766
Raven	1/0	53.51	62.43	17	6	3.37	1	3.37	3.37	10.11	216.5	18.9	0.5363
Quail	2/0	67.44	78.67	17	6	3.78	1	3.78	3.78	11.34	273	23.5	0.4255
Pigeon	3/0	85.03	99.21	17	6	4.25	1	4.25	4.25	12.75	344	29.6	0.3375
Penguin	4/0	107.2	125.1	17	6	4.77	1	4.77	4.77	14.31	434	37.3	0.2676
Partridge	266.8	135.2	157.2	16	26	2.57	7	2.00	6.00	16.28	546	50.0	0.2136
Owl	266.8	135.2	152.8	13	6	5.36	7	1.79	5.37	16.09	509	42.3	0.2123
Waxwing	266.8	135.2	142.7	6	18	3.09	1	3.09	3.09	15.45	431	31.2	0.2130
Piper	300	152.0	187.5	23	30	2.54	7	2.54	7.62	17.78	698	67.8	0.1898
Ostrich	300	152.0	176.7	16	26	2.73	7	2.12	6.36	17.28	614	56.3	0.1900
Phoebe	300	152.0	160.5	6	18	3.28	1	3.28	3.28	16.40	485	35.2	0.1895
Oriole	336.4	170.5	210.2	23	30	2.69	7	2.69	8.07	18.83	783	76.0	0.1693
Linnet	336.4	170.5	198.3	16	26	2.89	7	2.25	6.75	8.31	689	62.4	0.1694
Merlin	336.4	170.5	179.9	6	18	3.47	1	3.47	3.47	17.35	522	39.3	0.1690
Lark	397.5	201.4	248.3	23	30	2.92	7	2.92	8.76	20.44	924	88.6	0.1433
Ibis	397.5	201.4	234.1	16	26	3.14	7	2.44	7.32	19.88	813	71.5	0.1434
Chickadee	397.5	201.4	212.6	6	18	3.77	1	3.77	3.77	18.85	642	45.4	0.1430
Hen	477	241.7	298.0	23	30	3.20	7	3.20	9.60	22.40	1109	103	0.1194
Hawk	477	241.7	281.2	16	26	3.44	7	2.68	8.04	21.80	977	86.1	0.1195
Toucan	477	241.7	265.5	10	22	3.74	7	2.08	6.24	21.20	854	68.9	0.1193
Pelican	477	241.7	255.1	6	18	4.13	1	4.13	4.13	20.65	771	54.5	0.1192
Heron	500	253.4	312.5	23	30	3.28	7	3.28	9.84	22.96	1163	108	0.1139
Eagle	556.5	282.0	347.8	23	30	3.46	7	3.46	10.38	24.22	1295	120	0.1023
Dove	556.5	282.0	327.9	16	26	3.72	7	2.89	8.67	23.55	1139	100	0.1024
Sapsucker	556.5	282.0	309.6	10	22	4.04	7	2.24	6.72	22.88	995	78.8	0.1023
Duck	605	306.6	346.3	13	54	2.69	7	2.69	8.07	24.21	1160	101	0.09435
—	605	306.6	336.7	10	22	4.21	7	2.34	7.02	23.86	1082	84.8	0.09408
Egret	636	322.3	395.8	23	30	3.70	19	2.22	11.10	25.90	1469	141	0.08955
Grosbeak	636	322.3	374.8	16	26	3.97	7	3.09	9.27	25.15	1302	111	0.08960
Goose	636	322.3	364.1	13	54	2.76	7	2.76	8.28	24.84	1220	104	0.08975
Goldfinch	636	322.3	353.9	10	22	4.32	7	2.40	7.20	24.48	1138	89.3	0.08949
Gull	666.6	337.8	381.5	13	54	2.82	7	2.82	8.46	25.38	1278	109	0.08563
—	666.6	337.8	355.2	5	42	3.20	7	1.78	5.34	24.54	1070	77.8	0.08552
Redwing	715.5	362.6	445.0	23	30	3.92	19	2.35	11.75	27.43	1650	154	0.07960
Starling	715.5	362.6	421.3	16	26	4.21	7	3.27	9.81	26.65	1463	124	0.07964
Crow	715.5	362.6	409.4	13	54	2.92	7	2.92	8.76	26.28	1370	117	0.07978
—	715.5	362.6	381.2	5	42	3.32	7	1.84	5.52	25.44	1148	83.6	0.07968
Mallard	795	402.8	494.6	23	30	4.13	19	2.48	12.40	28.92	1835	171	0.07164
Drake	795	402.8	468.3	16	26	4.44	7	3.45	10.35	28.11	1626	138	0.07168
Condor	795	402.8	455.0	13	54	3.08	7	3.08	9.24	27.72	1524	126	0.07180
Macaw	795	402.8	423.5	5	42	3.49	7	1.94	5.82	26.76	1276	92.5	0.07171
Crane	874.5	443.1	500.5	13	54	3.23	7	3.23	9.69	29.07	1676	138	0.06527
--	874.5	443.1	466.0	5	42	3.67	7	2.04	6.12	28.14	1404	102	0.06519
Canary	900	456.0	515.2	13	54	3.28	7	3.28	9.84	29.52	1726	143	0.06342
--	900	456.0	479.6	5	42	3.72	7	2.07	6.21	28.53	1554	105	0.06334
Cardinal	954	483.4	546.2	13	54	3.38	7	3.38	10.14	30.42	1830	151	0.05983
Phoenix	954	483.4	508.3	5	42	3.83	7	2.13	6.39	29.37	1532	109	0.05976
Curlew	1033.5	523.7	591.4	13	54	3.51	7	3.51	10.53	31.59	1980	163	0.05523
Snowbird	1033.5	523.7	550.5	5	42	3.98	7	2.21	6.63	30.51	1658	118	0.05516
Finch	1113	564.0	635.5	13	54	3.65	19	2.19	10.95	32.85	2124	180	0.05129
Beaumont	1113	564.0	692.8	5	42	4.13	7	2.29	6.87	31.65	1785	126	0.05122
Grackle	1192.5	604.3	680.5	13	54	3.77	19	2.26	11.30	33.92	2272	188	0.04784
--	1192.5	604.3	635.4	5	42	4.28	7	2.38	7.14	32.82	1915	135	0.04781
Pheasant	1272	644.5	726.2	13	54	3.90	19	2.34	11.70	35.10	2427	200	0.04487
Scissortail	1272	644.5	677.8	5	42	4.42	7	2.46	7.38	33.90	2043	144	0.04482
Martin	1351.5	684.8	771.5	13	54	4.02	19	2.41	12.05	36.17	2577	212	0.04223
--	1351.5	684.8	720.0	5	42	4.56	7	2.53	7.59	34.95	2169	153	0.04218
Plover	1431	725.1	816.9	13	54	4.13	19	2.48	12.40	37.18	2729	224	0.03989
--	1431	725.1	762.6	5	42	4.69	7	2.61	7.83	35.97	2298	162	0.03984
Parrot	1510.5	765.4	862.4	13	54	4.25	19	2.55	12.75	38.25	2882	237	0.03779
--	1510.5	765.4	804.9	5	42	4.82	7	2.68	8.04	36.96	2425	171	0.03774
Falcon	1590	805.7	908.1	13	54	4.36	19	2.62	13.10	39.26	3036	250	0.03590
--	1590	805.7	876.5	9	48	4.62	7	3.59	10.77	38.49	2783	211	0.03586
—	1590	805.7	840.3	4	72	3.77	7	2.51	7.53	37.69	2501	172	0.03590

Aluminium Conductor Steel Reinforced

ACSR

DIN 48204

Code Number	Calculated Area			Stranding and Wire Diameter		Overall Diameter	Linear Mass			Nominal Breaking Load	Max.D.C. Resistance at 20°C	
	Al./st.	Al.	Steel	Total	Alum.		Steel	Alum.	Steel			Total
	mm ²	mm ²	mm ²	mm ²	mm	mm	mm	kg/km	kg/km	kg/km	kN	Ω/km
16/2.5	15.3	2.5	17.8	6/1.80	1/1.80	5.4	42	20	62	595	1.8780	
25/4	23.8	4.0	27.8	6/2.25	1/2.25	6.8	65	32	97	920	1.2002	
35/6	34.3	5.7	40.0	6/2.70	1/2.70	8.1	94	46	140	1265	0.8352	
44/32	44.0	31.7	75.7	14/2.00	7/2.40	11.2	122	250	372	4500	0.6573	
50/8	48.3	8.0	56.3	6/3.20	1/3.20	9.6	132	64	196	1710	0.5946	
50/30	51.2	29.8	81.0	12/2.33	7/2.33	11.7	141	237	378	4380	0.5643	
70/12	69.9	11.4	81.3	26/1.85	7/1.44	11.7	193	91	284	2680	0.4130	
95/15	94.4	15*3	109.7	26/2.15	7/1.67	13.6	260	123	383	3575	0.3058	
95/55	96.5	56.3	152.8	12/3.20	7/3.20	16.0	266	446	712	7935	0.2992	
105/75	105.7	75.5	181.5	14/3.10	9/2.25	17.5	292	599	891	10845	0.2735	
120/20	121.06	19.8	141.4	26/2.44	7/1.90	15.5	336	158	494	4565	0.2374	
120/70	122.0	71.3	193.3	12/3.6	7/3.60	18.0	337	564	901	10000	0.2364	
125/30	127.9	29.8	157.7	30/2.33	7/2.33	16.3	353	238	591	5760	0.2259	
150/25	148.9	24.2	173.1	26/2.70	7/2.10	17.1	411	194	605	5525	0.1939	
170/40	171.8	40.1	211.9	30/2.70	7/2.70	18.9	475	319	794	7675	0.1682	
185/30	183.8	29.8	213.6	26/3.00	7/2.33	19.0	507	239	746	6620	0.1571	
210/35	209.1	34.1	243.2	26/3.20	7/2.49	20.3	577	273	850	7490	0.1380	
210/50	212.1	49.5	261.6	30/3.00	7/3.00	21.0	587	394	981	9390	0.1362	
230/30	230.9	29.8	260.7	24/3.50	7/2.33	21.0	638	239	877	7310	0.1249	
240/40	243.0	39.5	282.5	26/3.45	7/2.68	21.9	671	316	987	8640	0.1188	
265/35	263.7	34.1	297.8	24/3.74	7/2.49	22.4	728	274	1002	8305	0.1094	
300/50	304.3	49.5	353.7	26/3.86	7/3.00	24.5	840	396	1236	10700	0.09487	
305/40	304.6	39.5	344.1	54/2.68	7/2.68	24.1	843	317	1160	9940	0.09490	
340/30	339.3	29.8	369.1	48/3.00	7/2.33	25.0	938	242	1180	9290	0.08509	
380/50	382.0	49.5	431.5	54/3.00	7/3.00	27.0	1056	397	1453	12310	0.08509	
385/35	386.0	34.1	420.1	48/3.20	7/2.49	26.7	1067	277	1344	10480	0.07573	
435/55	434.03	59.3	490.6	54/3.20	7/3.20	28.8	1203	450	1653	13645	0.07478	
450/40	448.7	39.5	488.2	48/3.45	7/2.68	28.7	1241	320	1561	12075	0.06656	
490/65	490.3	63.6	553.9	54/3.40	7/3.40	30.6	1356	510	1866	15310	0.06434	
495/35	494.1	34.1	528.2	45/3.74	7/2.49	29.9	1363	283	1646	12180	0.05846	
510/45	510.2	45.3	555.5	48/3.68	7/2.87	30.7	1413	365	1778	13665	0.05655	
550/70	550.0	71.3	621.3	54/3.60	7/3.60	32.4	1520	572	2092	17060	0.05259	
560/50	561.7	49.5	611.2	48/3.86	7/3.00	32.2	1553	401	1954	14895	0.05140	
570/40	565.5	39.5	610.3	45/4.02	7/2.68	32.2	1563	325	1888	13900	0.05108	
650/45	698.8	45.3	653.49	45/4.30	7/2.87	34.4	1791	372	2163	15552	0.0442	
680/85	678.8	86.0	764.8	54/4.00	19/2.40	36.0	1868	702	2570	21040	0.04260	
1045/45	1045.58	45.3	1090.9	72/4.30	7/2.87	43.0	2879	370	3249	21787	0.0277	

All Aluminium Conductor Steel Conductor

ACSR(Characteristics of A1/S1 A Conductor)

IEC 61089

Code Number	Area			Number of		WiresWire Dia.		Diameter		Linear Mass	Rated Strength	Max. D. C. Resistance at 20°C
	Alum.	Steel	Total	Al.	St.	Alum.	Steel	Core	Cond.			
mm ²	mm ²	mm ²	mm ²			mm	mm	mm	mm	kg/km	kN	Ω/km
16	16	2.67	18.7	6	1	1.84	1.84	1.84	5.53	64.6	6.08	1.7934
25	25	4.17	29.2	6		2.30	2.30	2.30	6.91	100.9	9.13	1.1478
40	40	6.67	46.7	6	1	2.91	2.91	2.91	8.74	161.5	14.40	0.7174
63	63	10.5	73.5	6	1	3.66	3.66	3.66	11.0	254.4	21.63	0.4555
100	100	16.7	117	6	1	4.61	4.61	4.61	13.8	403.8	34.33	0.2869
125	125	6.94	132	18	1	2.97	2.97	2.97	14.9	397.9	29.17	0.2304
125	125	20.4	145	26	7	2.47	1.92	5.77	15.7	503.9	45.69	0.2310
160	160	8.89	169	18	1	3.36	3.36	3.36	16.8	509.3	36.18	0.1800
160	160	26.1	186	26	7	2.80	2.18	6.53	17.7	644.9	57.69	0.1805
200	200	11.1	211	18	1	3.76	3.76	3.76	18.8	636.7	44.22	0.1440
200	200	32.6	233	26	7	3.13	2.43	7.30	19.8	806.2	70.13	0.1444
250	250	24.6	275	22	7	3.80	2.11	6.34	21.6	880.6	68.72	0.1154
250	250	40.7	291	26	7	3.50	2.72	8.16	22.2	1007.7	87.67	0.1155
315	315	21.8	337	45	7	2.99	1.99	5.97	23.9	1039.3	79.03	0.0917
315	315	51.3	366	26	7	3.93	3.05	9.16	24.9	1269.7	106.83	0.0917
400	400	27.7	428	45	7	3.36	2.24	6.73	26.9	1320.1	98.36	0.0722
400	400	51.9	452	54	7	3.07	3.07	9.21	27.6	1510.3	123.04	0.0723
450	450	31.1	481	45	7	3.57	2.38	7.14	28.5	1485.2	107.47	0.0642
450	450	58.3	508	54	7	3.26	3.26	9.77	29.3	1699.1	138.42	0.0643
500	500	34.6	535	45	7	3.76	2.51	7.52	30.1	1650.2	199.41	0.0578
500	500	64.8	565	54	7	3.43	3.43	10.3	30.9	1887.9	153.80	0.0578
560	560	38.7	599	45	7	3.98	2.65	7.96	31.8	1848.2	133.74	0.0516
560	560	70.9	631	54	19	3.63	2.18	10.9	32.7	2103.4	172.59	0.0516
630	630	43.6	674	45	7	4.22	2.81	8.44	33.8	2079.2	150.45	0.0459
630	630	79.8	710	54	19	3.85	2.31	11.6	34.7	2366.3	191.77	0.0459
710	710	49.1	759	45	7	4.48	2.99	8.96	35.9	2343.2	169.56	0.0407
710	710	89.9	800	54	19	4.09	2.45	12.3	36.8	2666.8	216.12	0.0407
800	800	34.6	835	72	7	3.76	2.51	7.52	37.6	2480.2	167.41	0.0361
800	800	66.7	867	84	7	3.48	3.48	10.4	38.3	2732.7	205.33	0.0362
800	800	101	901	54	19	4.44	2.61	13.0	39.1	3004.9	243.52	0.0362
900	900	38.9	939	72	7	3.99	2.66	7.98	39.9	2790.2	188.33	0.0321
900	900	75.0	975	84	7	3.69	3.69	11.1	40.6	3074.2	226.50	0.0322
1000	1000	43.2	1043	72	7	4.21	2.80	8.41	42.1	3100.3	209.26	0.0289
1120	1120	47.3	1167	72	19	4.45	1.78	8.90	44.5	3464.9	234.53	0.0258
1120	1120	91.2	1211	84	19	4.12	2.47	12.4	45.3	3811.5	283.17	0.0258
1250	1250	102	1352	84	19	4.35	2.61	13.1	47.9	4253.9	316.04	0.0232
1250	1250	52.8	1303	72	19	4.70	1.88	9.40	47.0	3867.1	261.75	0.0231

Aluminium Conductor Steel Reinforced

ACSR(Characteristics of A1/S2A Conductor)

IEC 61089

Code Number	Area			Number of Wires		Wires Dia.		Diameter		Linear Mass	Rated Strength	Max.D.C. Resistance at 20°C
	Alum.	Steel	Total	Al.	St.	Alum.	Steel	Core	Cond.			
mm ²	mm ²	mm ²	mm ²			mm	mm	mm	mm	kg/km	kN	Ω/km
16	16	2.67	18.7	6	1	1.84	1.84	1.84	5.53	64.6	6.08	1.7934
25	25	4.17	29.2	6	1	2.30	2.30	2.30	6.91	100.9	9.71	1.1478
40	40	6.67	46.7	6	1	2.91	2.91	2.91	8.74	161.5	15.33	0.7174
63	63	10.5	73.5	6	1	3.66	3.66	3.66	11.0	254.4	22.37	0.4555
100	100	16.7	117	6	1	4.61	4.61	4.61	13.8	403.8	35.50	0.2869
125	125	6.94	132	18	1	2.97	2.97	2.97	14.9	397.9	30.14	0.2304
125	125	20.4	145	26	7	2.47	1.92	5.77	15.7	503.9	48.54	0.2310
160	160	8.89	169	18	1	3.36	3.36	3.36	16.8	509.3	37.42	0.1800
160	160	26.1	186	26	7	2.80	2.18	6.53	17.7	644.9	61.34	0.1805
200	200	11.1	211	18	1	3.76	3.76	3.76	18.8	636.7	45.00	0.1440
200	200	32.6	233	26	7	3.13	2.43	7.30	19.8	806.2	74.69	0.1444
250	250	24.6	275	22	7	3.80	2.11	6.34	21.6	880.6	72.16	0.1154
250	250	40.7	291	26	7	3.50	2.71	8.16	22.2	1007.7	93.37	0.1155
315	315	21.8	337	45	7	2.99	1.99	5.79	23.9	1039.3	82.08	0.0917
315	315	51.3	366	26	7	3.93	3.05	9.16	24.9	1269.7	114.02	0.0917
400	400	27.7	428	45	7	3.36	2.24	6.73	26.9	1320.1	102.23	0.0722
400	400	51.9	452	54	7	3.07	3.07	9.21	27.6	1510.3	130.30	0.0723
450	450	31.1	481	45	7	3.57	2.38	7.14	28.5	1485.2	111.82	0.0642
450	450	58.3	508	54	7	3.26	3.26	9.77	29.3	1699.1	146.58	0.0643
500	500	34.6	535	45	7	3.76	2.51	7.52	30.1	1650.2	124.25	0.0578
500	500	64.8	565	54	7	3.43	3.43	10.3	30.9	1887.9	162.87	0.0578
560	560	38.7	599	45	7	3.98	2.65	7.96	31.8	1848.2	139.16	0.0516
560	560	70.9	631	54	19	3.63	2.18	10.9	32.7	2103.4	182.52	0.0516
630	630	43.6	674	45	7	4.22	2.81	8.44	33.8	2079.2	156.55	0.0459
630	630	79.8	710	54	19	3.85	2.31	11.6	34.7	2366.3	202.94	0.0459
710	710	49.1	759	45	7	4.48	2.99	8.96	35.9	2343.2	176.43	0.0407
710	710	89.9	800	54	19	4.09	2.45	12.3	36.8	2666.8	228.71	0.0407
800	800	34.6	835	72	7	3.76	2.51	7.52	37.6	2480.2	172.25	0.0361
800	800	66.7	867	84	7	3.48	3.48	10.4	38.3	2732.7	214.67	0.0362
800	800	101	901	54	19	4.34	2.61	13.0	39.1	3004.9	257.71	0.0362
900	900	38.9	939	72	7	3.99	2.66	7.98	39.9	2790.2	193.78	0.0321
900	900	75.0	975	84	7	3.69	3.69	11.1	40.6	3074.2	231.75	0.0322
1000	1000	43.2	1043	72	7	4.21	2.80	8.41	42.1	3100.3	215.31	0.0289
1120	1120	47.3	1167	72	19	4.45	1.78	8.90	44.5	3464.9	241.15	0.0258
1120	1120	91.2	1211	84	19	4.12	2.47	12.4	45.3	3811.5	295.94	0.0258
1250	1250	52.8	1303	72	19	4.70	1.88	94.0	47.0	3867.1	269.14	0.0231
1250	1250	102	1352	84	19	4.35	2.61	13.1	47.9	4253.9	330.29	0.0232

Aluminium Conductor Steel Reinforced

ACSR(Characteristics of A1/S3A Conductor)

IEC 61089

Code Number	Area			Number of Wires		Wire Dia.		Diameter		Linear Mass	Rated Strength	Max.D.C. Resistance at 20°C
	Alum.	Steel	Total	Al.	St.	Alum.	Steel	Core	Cond.			
mm ²	mm ²	mm ²	mm ²			mm	mm	mm	mm	kg/km	kN	Ω/km
16	16	2.67	18.7	6	1	1.84	1.84	1.84	5.53	64.6	6.83	1.7934
25	25	4.17	29.2	6	1	2.30	2.30	2.30	6.91	100.9	10.25	1.1478
40	40	6.67	46.7	6	1	2.91	2.91	2.91	8.74	161.5	16.20	0.7174
63	63	10.5	73.5	6	1	3.66	3.66	3.66	11.0	254.4	24.15	0.4555
100	100	16.7	117	6	1	4.61	4.61	4.61	13.8	403.8	38.33	0.2869
125	125	6.94	132	18	1	2.97	2.97	2.97	14.9	397.9	31.04	0.2304
125	125	20.4	145	26	7	2.47	1.92	5.77	15.7	503.9	51.39	0.2310
160	160	8.89	169	18	1	3.36	3.36	3.36	16.8	509.3	38.67	0.1800
160	160	26.1	186	26	7	2.80	2.18	6.53	17.7	644.9	64.99	0.1805
200	200	11.1	211	18	1	3.76	3.76	3.76	18.8	636.7	46.89	0.1440
200	200	32.6	233	26	7	3.13	2.43	7.30	19.8	806.2	78.93	0.1444
250	250	24.6	275	22	7	3.80	2.11	6.34	21.6	880.6	75.60	0.1154
250	250	40.7	291	26	7	3.50	2.71	8.16	22.2	1007.7	98.66	0.1155
315	315	21.8	337	45	7	2.99	1.99	5.79	23.9	1039.3	85.13	0.0917
315	315	51.3	366	26	7	3.93	3.05	9.16	24.9	1269.7	121.20	0.0917
400	400	27.7	428	45	7	3.36	2.24	6.73	26.9	1320.1	106.10	0.0722
400	400	51.9	452	54	7	3.07	3.07	9.21	27.6	1510.3	137.56	0.0723
450	450	31.1	481	45	7	3.57	2.38	7.14	28.5	1485.2	115.87	0.0642
450	450	58.3	508	54	7	3.26	3.26	9.77	29.3	1699.1	154.75	0.0643
500	500	34.6	535	45	7	3.76	2.51	7.52	30.1	1650.2	128.74	0.0578
500	500	64.8	565	54	7	3.43	3.43	10.3	30.9	1887.9	171.94	0.0578
560	560	38.7	599	45	7	3.98	2.65	7.96	31.8	1848.2	144.19	0.0516
560	560	70.9	631	54	19	3.63	2.18	10.9	32.7	2103.4	192.45	0.0516
630	630	43.6	674	45	7	4.22	2.81	8.44	33.8	2079.2	162.21	0.0459
630	630	79.8	710	54	19	3.85	2.31	11.6	34.7	2366.3	213.31	0.0459
710	710	49.1	759	45	7	4.48	2.99	8.96	35.9	2343.2	182.81	0.0407
710	710	89.9	800	54	19	4.09	2.45	12.3	36.8	2666.8	240.41	0.0407
800	800	34.6	835	72	7	3.76	2.51	7.52	37.6	2480.2	176.74	0.0361
800	800	66.7	867	84	7	3.48	3.48	10.4	38.3	2732.7	224.00	0.0362
800	800	101	901	54	19	4.34	2.61	13.0	39.1	3004.9	270.88	0.0362
900	900	38.9	939	72	7	3.99	2.66	7.98	39.9	2790.2	198.83	0.0321
900	900	75.0	975	84	7	3.69	3.69	11.1	40.6	3074.2	244.50	0.0322
1000	1000	43.2	1043	72	7	4.21	2.80	8.41	42.1	3100.3	220.93	0.0289
1120	1120	47.3	1167	72	19	4.45	1.78	8.90	44.5	3464.9	247.77	0.0258
1120	1120	91.2	1211	84	19	4.12	2.47	12.4	45.3	3811.5	307.79	0.0258
1250	1250	52.8	1303	72	19	4.70	1.88	94.0	47.0	3867.1	276.53	0.0231
1250	1250	102	1352	84	19	4.35	2.61	13.1	47.9	4253.9	343.52	0.0232

Aluminium Alloy Conductor Steel Reinforced



Application

Used for overhead transmission lines.

Construction

Aluminum alloy 6201 wires and the steel cores are concentrically stranded and wrapped helically around a central wire.

Specification

AACSR(Characteristics of A2/S1A Conductor)

IEC 61089

Code Number	Areas			Number of Wires		Wire Dia.		Diameter		Linear Mass kg/km	Rated Strength kN	Max.D.C. Resistance at 20°C Ω/km
	Alloy mm ²	St. mm ²	Total mm ²	Alloy	St.	Alloy mm	St. mm	Core mm	Cond. mm			
16	18.4	3.07	21.5	6	1	1.98	1.98	1.98	5.93	74.4	9.02	1.7934
25	28.8	4.80	33.6	6	1	2.47	2.47	2.47	7.41	116.2	13.96	1.1478
40	46.0	7.67	53.7	6	1	3.13	3.13	3.13	9.38	185.9	22.02	0.7174
63	72.5	12.1	84.6	6	1	3.92	3.92	3.92	11.8	292.8	34.68	0.4555
100	115	6.39	121	18	1	2.85	2.85	2.85	14.3	366.4	41.24	0.2880
125	144	7.99	152	18	1	3.19	3.19	3.19	16.0	458.0	51.23	0.2304
125	144	23.4	167	26	7	2.65	2.06	6.19	16.8	579.9	69.86	0.2310
160	184	10.2	194	18	1	3.61	3.61	3.61	18.0	586.2	65.58	0.1800
160	184	30.0	214	26	7	3.00	2.34	7.01	19.0	742.3	88.52	0.1805
200	230	12.8	243	18	1	4.04	4.04	4.04	20.2	732.8	81.97	0.1440
200	230	37.5	268	26	7	3.36	2.61	7.83	21.3	927.9	110.64	0.1444
250	288	28.3	316	22	7	4.08	2.27	6.80	23.1	1013.5	117.09	0.1154
250	288	46.9	335	26	7	3.75	2.92	8.76	23.8	1159.6	138.31	0.1155
315	363	25.1	388	45	7	3.20	2.14	6.41	25.8	1196.5	136.28	0.0917
315	363	59.0	422	26	7	4.21	3.28	9.83	26.7	1461.4	171.90	0.0917
400	460	31.8	492	45	7	3.61	2.41	7.22	28.9	1519.4	172.10	0.0722
400	460	59.7	520	54	7	3.29	3.29	9.88	29.7	1738.3	201.46	0.0723
450	518	35.8	554	45	7	3.83	2.55	7.66	30.6	1709.3	193.61	0.0642
450	518	67.1	585	54	7	3.49	3.49	10.5	31.5	1955.6	226.64	0.0643
500	575	39.8	615	45	7	4.04	2.69	8.07	32.3	1899.3	215.12	0.0578
500	575	74.6	650	54	7	3.68	3.68	11.1	33.2	2172.9	251.82	0.0578
560	645	44.6	689	45	7	4.27	2.85	8.54	34.2	2127.2	240.93	0.0516
560	645	81.6	726	54	19	3.90	2.34	11.7	35.1	2420.9	283.21	0.0516
630	725	31.3	756	72	7	3.58	2.39	7.16	35.8	2248.0	249.62	0.0459
630	725	91.8	817	54	19	4.13	2.48	12.4	37.2	2723.5	318.61	0.0459
710	817	35.3	852	72	7	3.80	2.53	7.60	38.0	2533.4	281.32	0.0407
710	817	104	921	54	19	4.39	2.63	13.2	39.5	3069.4	359.06	0.0407
800	921	39.8	961	72	7	4.04	2.69	8.07	40.4	2854.6	316.98	0.0361
800	921	76.7	997	84	7	3.74	3.74	11.2	41.1	3145.1	356.03	0.0362
900	1036	44.8	1081	72	7	4.28	2.85	8.56	42.8	3211.4	356.60	0.0321
900	1036	86.3	1122	84	7	3.96	3.96	11.9	43.6	3538.3	400.53	0.0322
1000	1151	93.7	1245	84	19	4.18	2.61	12.5	45.9	3916.8	446.37	0.0289
1120	1289	105	1394	84	19	4.42	2.65	13.3	48.6	4386.8	499.93	0.0258

Aluminium Conductor Aluminium Alloy Reinforced



Application

Used for overhead transmission lines.

Construction

Aluminum 1350 wires and the aluminum alloy 6201 cores are concentrically stranded and wrapped helically around a central wire.

Specification

ACAR(Characteristics of A1/A2 Conductor)

IEC 61089

Code Number	Diameter		Number of Wires		Area			Linear Mass	Rated Strength	Max.D.C. Resistance at 20°C
	Wire	Cond.	Al.	Alloy	Al.	Alloy	Total			
mm ²	mm	mm			mm ²	mm ²	mm ²	kg/km	kN	Ω/km
16	1.76	5.28	4	3	9.73	7.30	17.0	46.6	3.85	1.7896
25	2.20	6.60	4	3	15.2	11.4	26.6	72.8	5.93	1.1453
40	2.78	8.35	4	3	24.3	18.3	42.6	116.5	9.25	0.7158
63	3.49	10.5	4	3	38.3	28.7	67.1	183.5	14.38	0.4545
100	4.40	13.2	4	3	60.8	45.6	106	291.2	22.52	0.2863
125	2.97	14.9	12	7	83.3	48.6	132	362.7	27.79	0.2302
160	3.36	16.8	12	7	107	62.2	169	464.2	35.04	0.1798
200	3.76	18.8	12	7	133	77.8	211	580.3	43.13	0.1439
250	4.21	21.0	12	7	167	97.2	264	725.3	53.92	0.1151
250	3.04	21.3	18	19	131	138	269	742.2	60.39	0.1154
315	3.34	23.4	30	7	263	61.3	324	892.6	60.52	0.0916
315	3.42	23.9	18	19	165	174	339	935.1	76.09	0.0916
400	3.76	26.3	30	7	334	77.8	411	1133.5	75.19	0.0721
400	3.85	27.0	18	19	210	221	431	1187.5	95.58	0.0721
450	3.99	27.9	30	7	375	87.6	463	1275.2	84.59	0.0641
450	4.08	28.6	18	19	236	249	485	1335.9	107.52	0.0641
500	4.21	29.4	30	7	417	97.3	514	1416.9	93.98	0.0577
500	4.31	30.1	18	19	262	277	539	1484.3	119.47	0.0577
560	4.45	31.2	30	7	467	109	576	1586.9	105.26	0.0515
560	3.45	31.0	54	7	504	65.4	570	1571.9	101.54	0.0516
630	3.71	33.4	42	19	454	205	660	1820.0	130.25	0.0458
630	3.79	34.1	24	37	271	417	688	1897.5	160.19	0.0458
710	3.94	35.5	42	19	512	232	743	2051.2	146.78	0.0407
710	4.02	36.2	24	37	305	470	775	2138.4	180.53	0.0407
800	4.18	37.6	42	19	577	261	838	2311.2	165.39	0.0361
800	4.27	38.4	24	37	344	530	873	2409.5	203.41	0.0361
900	4.43	39.9	42	19	649	294	942	2600.1	186.06	0.0321
900	3.66	40.2	54	37	567	388	955	2638.4	199.54	0.0321
1000	3.80	41.8	72	19	816	215	1032	2849.1	190.94	0.0289
1000	3.85	42.4	54	37	630	432	1061	2931.6	221.71	0.0289
1120	4.02	44.2	72	19	914	241	1155	3191.0	213.85	0.0258
1120	4.08	44.9	54	37	705	483	1189	3283.4	248.32	0.0258
1250	4.25	46.7	72	19	1020	269	1289	3561.4	238.68	0.0231
1250	4.31	47.4	54	37	787	539	1327	3664.5	277.14	0.0231
1400	4.50	49.4	72	19	1143	302	1444	3988.8	267.32	0.0207

Aluminium Conductor Aluminium Clad Steel Reinforced



Application

Used for overhead transmission lines.

Construction

Aluminum 1350 wires and the aluminum Clad Steel Reinforced cores are concentrically stranded and wrapped helically around a central wire.

Specification

ACSR/AW

ASTM B549-88

Code	Area				Stranding and Wire Dia.		Approx Overall Dia.	Weight			Maximum Breaking Load	Max.D.C. Resistance at 20°C
	Name	Alum.	AW.	Total	Alum.	AW.		Alum.	AW.	Total		
	AWG or MGM	mm ²	mm ²	mm ²	mm	mm	mm	kg/km	kg/km	kg/km	kN	Ω/km
Swanate	4	21.16	5.35	26.51	7/1.96	1/2.61	6.53	58.0	35	93	10.16	1.2490
Sparrow	2	33.61	5.61	39.22	6/2.67	1/2.67	8.01	92.0	37	129	12.31	0.8079
Sparate	2	33.61	8.52	42.13	7/2.47	1/3.30	8.24	92.0	56	148	15.60	0.7861
Robin	1	42.39	7.10	49.49	6/3.00	1/3.00	9.00	116	47	163	15.34	0.6404
Raven	1/0	53.48	8.90	62.38	6/3.37	1/3.37	10.11	147	59	206	18.78	0.5078
Quail	2/0	67.42	11.23	78.65	6/3.78	1/3.78	11.34	185	74	259	22.85	0.4028
Pigeon	3/0	85.03	14.19	99.22	6/4.25	1/4.25	12.75	233	94	327	26.03	0.3193
Penguin	4/0	107.23	17.87	125.10	6/4.77	1/4.77	14.31	294	118	412	34.15	0.2532
Waxwing	266.8	135.16	7.48	142.64	18/3.09	1/3.09	15.45	373	49	422	30.03	0.2094
Merlin	336.4	170.45	9.48	179.93	18/3.47	1/3.47	17.35	470	62	532	37.66	0.1660
Linnet	336.4	170.45	21.81	198.26	26/2.89	7/2.25	18.31	472	184	656	59.95	0.1610
Qriole	336.4	170.45	39.81	210.26	30/2.69	7/2.69	18.83	473	264	737	74.66	0.1578
Chickadee	397.5	201.42	11.16	212.58	18/3.77	1/3.77	18.85	555	74	629	43.62	0.1405
Ibis	397.5	201.42	32.77	234.19	26/3.14	7/2.44	19.88	558	217	775	69.80	0.1363
Lark	397.5	201.42	46.97	248.39	30/2.92	7/2.92	20.44	560	311	871	87.19	0.1335
Pelican	477	241.68	13.42	255.10	18/4.14	1/4.14	20.70	666	88	754	50.86	0.1171
Flicker	477	241.68	31.29	272.97	24/3.58	7/2.39	21.49	670	207	877	74.35	0.1148
Hawk	477	241.68	39.42	281.10	26/3.44	7/2.67	21.80	670	261	931	83.87	0.1136
Hen	477	241.68	56.39	298.07	30/3.20	7/3.20	22.40	671	373	1044	103.53	0.1113
Osprey	556.5	282.00	15.68	297.68	18/4.47	1/4.47	22.35	777	103	880	58.73	0.1003
Parakeet	556.5	282.00	36.58	318.58	24/3.87	7/2.58	23.22	781	242	1023	85.64	0.0984
Dove	556.5	282.00	45.94	327.94	26/3.72	7/2.89	23.55	781	304	1085	97.60	0.0973
Eagle	556.5	282.00	65.81	347.81	30/3.46	7/3.46	24.21	783	436	1219	118.96	0.0954
Peacock	605	306.58	39.74	346.32	24/4.03	7/2.69	24.20	840	263	1112	93.08	0.0905
Squab	605	306.58	49.94	356.52	26/3.87	7/3.01	24.51	850	330	1180	104.89	0.0995
Wood Duck	605	306.58	71.55	378.13	30/3.61	7/3.61	25.25	851	474	1325	126.53	0.0877
Kingbird	636	322.26	17.90	340.16	18/4.78	1/4.78	23.88	889	118	1007	66.64	0.0878
Rook	636	322.26	41.81	364.07	24/4.14	7/2.76	24.84	893	277	1170	97.88	0.0861
Grosbeak	636	322.26	52.45	374.71	26/3.97	7/3.09	25.15	893	347	1240	110.21	0.0852
Scoter	636	322.26	75.222	397.48	30/3.70	7/3.70	25.88	895	498	1393	130.29	0.0834
Swift	636	322.26	8.96	331.22	36/3.38	1/3.38	23.62	888	59	947	68.36	0.0886
Flamingo	666.6	337.74	43.81	381.55	24/4.23	7/2.82	25.40	936	290	1226	102.57	0.0821
Gannet	666.6	337.74	55.03	392.77	26/4.07	7/3.16	25.76	936	364	1300	115.57	0.0813
Stilt	715.5	362.58	46.97	409.55	24/4.39	7/2.92	26.31	1005	311	1316	110.04	0.0765
Starling	715.5	362.58	59.03	421.61	26/4.21	7/3.28	26.68	1005	391	1396	122.35	0.0757
Redwing	715.5	362.58	82.58	445.16	30/3.92	19/2.35	27.43	1006	547	1553	148.31	0.0743
Tern	795	402.84	27.87	430.71	45/3.38	7/2.25	27.03	1116	184	1300	95.44	0.0702
Condor	795	402.84	52.19	456.03	54/3.08	7/3.08	27.72	1116	345	1461	122.77	0.0689
Cuckoo	795	402.84	52.19	456.03	24/4.62	7/3.08	27.74	1116	345	1461	122.77	0.0689
Drake	795	402.84	65.61	468.45	26/4.44	7/3.45	28.11	1116	434	1550	135.96	0.0681
Coot	795	402.84	11.16	414.00	36/3.77	1/3.77	26.41	1110	74	1184	74.09	0.0709
Mallard	795	402.84	91.87	494.71	30/4.14	19/2.48	28.96	1119	609	1728	164.9	0.0669



Aluminium Clad Steel strand



Application

Used for overhead transmission lines; as the strength member for ACSR cables

Construction

Stranded aluminum clad steel wires are concentrically stranded and wrapped helically around a central wire.

Specification

ACS

ASTM B416

Code Number	Area mm ²	No. of Wires	Diameter		Weight kg/km	Rated Strength kN	Max. D.C. Resistance at 20°C Ω/km
			Wire mm	Cond. mm			
3 x 5AWG	50.32	3	4.62	9.96	334.1	54.42	1.6990
3 x 6AWG	39.00	3	4.11	8.87	265.0	45.74	2.1420
3x7AWG	31.65	3	3.67	7.90	210.1	38.36	2.7010
3 x 8AWG	25.10	3	3.26	7.03	166.7	32.06	3.4060
3 x 9AWG	19.90	3	2.91	6.26	132.2	25.43	4.2940
3x10AWG	15.78	3	2.59	5.58	104.8	20.16	5.4150
7 x 5AWG	117.40	7	4.62	13.90	781.1	120.27	0.7426
7 x 6AWG	93.10	7	4.11	12.40	619.5	101.14	0.9198
7x7AWG	73.87	7	3.67	11.00	491.1	84.81	1.1600
7x8AWG	58.56	7	3.26	9.78	389.6	70.88	1.4630
7 x 9AWG	46.44	7	2.91	8.71	308.9	56.20	1.8440
7x10AWG	36.83	7	2.59	7.76	245.1	44.58	2.3250
7x11AWG	29.21	7	2.30	6.91	194.4	35.35	2.9320
7x12AWG	23.16	7	2.05	6.16	154.2	28.03	3.6970
19x5AWG	318.70	19	4.62	23.10	2129.0	326.39	0.2698
19x6AWG	252.70	19	4.11	20.60	1688.0	274.55	0.3402
19x7AWG	200.40	19	3.67	18.30	1339.0	230.18	0.4290
19x8AWG	158.90	19	3.26	16.30	1062.0	192.41	0.5409
19x9AWG	126.10	19	2.91	14.50	842.0	152.58	0.6821
19x10AWG	99.96	19	2.59	12.90	667.7	121.00	0.8601
37 x 5AWG	620.60	37	4.62	32.30	4170.0	635.43	0.1394
37 x 6AWG	492.20	37	4.11	28.80	3307.0	534.85	0.1757
37 x 7AWG	390.30	37	3.67	25.70	2623.0	448.09	0.2216
37 x 8AWG	309.50	37	3.26	22.90	2080.0	374.67	0.2794
37 x 9AWG	245.50	37	2.91	20.30	1649.0	279.11	0.3523
37x10AWG	194.70	37	2.59	17.90	1308.0	235.61	0.4443

ACS

DIN 48201

Code Number	Area	No. of Wires	Diameter		Weight	Rated Strength	Max. D.C. Resistance at 20°C
			Wire	Cond.			
	mm ²		mm	mm	kg/km	kN	Ω/km
25	24.25	7	2.10	6.30	162.0	31.56	3.5460
35	34.36	7	2.50	7.50	229.0	44.72	2.4990
50	49.48	7	3.00	9.00	330.0	64.40	1.7360
70	65.81	19	2.10	10.5	441.0	85.65	1.3130
95	93.27	19	2.50	12.5	626.0	121.39	0.9250
120	116.99	19	2.80	14.0	785.0	152.26	0.7370
150	147.11	37	2.25	15.7	990.0	191.46	0.5870
185	181.62	37	2.50	17.5	1221.0	236.38	0.4760
240	242.54	61	2.25	20.2	1635.0	299.05	0.3570
300	299.43	61	2.50	22.5	2017.0	369.20	0.2890

Galvanized Steel strand

Construction

The Galvanized Steel wires are concentrically stranded and wrapped helically around a central wire.

GSW

The product galvanized steel wire (GSW) is used for the cord of ACSR (Aluminum Conductor Steel Reinforced) conductor. Being the leading enterprise of this industry, the GSW manufactured by us has excellent mechanical property, best quality of coating and nice condition of surface.

Diameter	Tensile Strength	Weight of Zinc
mm	mPa	g/m ²
1.24-2.25	1340-1620	185-215
2.25-3.00	1310-1590	230
3.00-3.50	1290-1550	245
3.50-4.25	1290-1520	260
4.25-4.75	1290-1520	275
4.75-5.50	1290-1520	290

Specification

Intensity Level	Wire Diameter	Min. Tensile Strength	Min. Stress With 1% Extension	Min. Extension Percentage When L=250	Min. Number of 360. twists	Diameter of Testing Mandril
	mm	mPa	mPa	%		multiple
General	>1.24-2.25	1340	1170	3.0	16	1
	>2.25-2.75	1310	1140	3.0	16	1
	>2.75-3.00	1210	1140	3.5	16	1
	>3.00-3.50	1290	1100	3.5	14	1
	>3.50-4.25	1290	1100	4.0	12	1
	>4.25-4.75	1290	1100	4.0	12	1
	>4.75-5.50	1290	1100	4.0	12	1
High	>1.24-2.25	1450	1310	2.5	16	3
	>2.25-2.75	1410	1280	2.5	16	3
	>2.75-3.00	1410	1280	3.0	16	4
	>3.00-3.50	1410	1240	3.0	14	4
	>3.50-4.25	1380	1170	3.0	12	4
	>4.25-4.75	1380	1170	3.0	12	4
	>4.75-5.50	1380	1170	3.0	12	4
Very High	>1.24-2.25	1620	1450	2.0	14	4
	>2.25-2.75	1590	1410	2.0	14	4
	>2.75-3.00	1590	1410	2.5	12	5
	>3.00-3.50	1550	1380	2.5	12	5
	>3.50-4.25	1520	1340	2.5	10	5
	>4.25-4.75	1520	1340	2.5	10	5
	>4.75-5.50	1520	1270	2.5	10	5

Galvanized Steel strand

GSW

ASTM A475

Number of Wires/Dia.	Approx. Strand Dia.		Siemem Martin Grade	High Strength Grade	Extra-high Strength Grade	Approx. Weight
	Inch	mm	kN	kN	kN	kg/km
3/2.64	7/32	5.56	10.409	15.569	21.796	131
3/3.05	1/4	6.35	13.523	21.040	29.981	174
3/3.05	1/4	6.35	-	-	-	174
3/3.30	9/32	7.14	15.035	23.398	33.362	204
3/3.68	5/16	7.94	18.193	28.246	40.479	256
3/4.19	3/8	9.52	24.732	37.187	52.489	328
7/1.04	1/8	3.18	4.048	5.916	8.140	49
7/1.32	5/32	3.97	6.539	9.519	13.078	76
7/1.57	3/16	4.76	8.452	12.677	17.748	108
7/1.65	3/16	4.76	-	-	-	118
7/1.83	7/32	5.56	11.387	17.126	24.020	145
7/2.03	1/4	6.35	14.012	21.129	29.581	181
7/2.36	9/32	7.14	18.905	28.469	39.812	243
7/2.64	5/16	7.94	23.798	35.586	49.820	305
7/2.77	5/16	7.94	-	-	-	335
7/3.05	3/8	9.52	30.915	48.040	68.503	407
7/3.68	7/16	11.11	41.591	64.499	92.523	594
7/4.19	1/2	12.70	53.823	83.627	119.657	768
7/4.78	9/16	14.29	69.837	108.981	155.688	991
7/5.26	5/8	15.88	84.961	131.667	188.605	1211
19/2.54	1/2	12.70	56.492	84.961	118.768	751
19/2.87	9/16	12.49	71.616	107.202	149.905	948
19/3.18	5/8	15.88	80.513	124.995	178.819	1184
19/3.81	3/4	19.05	116.543	181.487	259.331	1719
19/4.50	7/8	22.22	159.691	248.211	354.523	2352
19/5.08	1	25.40	209.066	325.610	464.839	2384
37/3.63	1	25.40	205.508	319.827	456.832	3061
37/4.09	11/8	28.58	262.000	407.457	581.827	4006
37/4.55	11/4	31.75	324.720	505.318	721.502	4833



Galvanized Steel strand

GWS

BS 183:1972

Number of Wires/Dia.	Approx. Strand Dia. mm	Minimum Break Load of Strand							Approx.
		Grade 350	Grade 480	Grade 700	Grade 850	Grade 1000	Grade 1150	Grade 1300	Weight kg/km
3/1.80	3.9	2.65	3.66	-	-	-	-	-	60
3/2.65	5.7	5.80	7.95	-	-	-	-	-	130
3/3.25	7.0	8.70	11.95	-	-	-	-	-	195
3/4.00	8.6	13.2	18.10	-	-	-	-	-	295
4/1.80	4.4	3.55	4.90	-	-	-	-	-	80
4/2.65	6.4	7.70	10.60	-	-	-	-	-	172
4/3.25	7.9	11.60	15.90	-	-	-	-	-	260
4/4.00	9.7	17.60	24.10	35.20	-	-	-	-	390
5/1.50	4.1	3.10	4.24	6.18	-	-	-	-	69
5/1.80	4.9	4.45	6.10	8.90	-	-	-	-	95
5/2.65	7.2	9.65	13.25	19.30	-	-	-	-	220
5/3.25	8.8	14.50	19.90	29.00	-	-	-	-	320
5/4.00	10.8	22.00	30.15	43.95	-	-	-	-	490
7/0.56	1.7	0.60	0.83	1.20	-	1.70	1.98	2.24	14
7/0.71	2.1	0.97	1.33	1.94	-	2.75	3.19	3.60	28
7/0.85	2.6	1.39	1.90	2.80	-	3.95	4.57	5.15	31
7/0.90	2.7	1.55	2.14	3.1	-	4.45	5.12	5.80	35
7/1.00	3.0	1.92	2.64	3.85	-	5.50	6.32	7.15	43
7/1.25	3.8	3.01	4.10	6.00	-	8.55	9.88	11.15	67
7/1.40	4.2	3.75	5.17	7.54	9.16	10.75	12.35	14.00	84
7RS*	4.3	3.85	5.28	7.70	9.35	11.00	12.65	14.30	86
7/1.60	4.8	4.90	6.75	9.85	11.95	14.10	16.20	18.30	110
7/1.80	5.4	6.23	8.55	12.45	-	17.80	20.50	23.20	140
7/2.00	6.0	7.70	10.55	15.40	-	22.00	25.30	28.60	170
7/2.36	7.1	10.70	14.70	21.40	-	30.60	35.20	39.80	240
7/2.65	8.0	13.50	18.50	27.00	-	38.60	44.40	50.20	300
7/3.00	9.0	17.30	23.75	34.65	-	49.50	56.90	64.30	392
7/3.15	9.5	19.10	26.20	38.20	-	54.55	62.75	70.90	430
7/3.25	9.8	20.30	27.85	40.65	-	58.05	66.80	75.50	460
7/3.65	11.0	25.60	35.15	51.25	-	73.25	84.20	95.20	570
7/4.00	12.0	30.90	42.20	61.60	-	88.00	101.0	114.00	690
7/4.25	12.8	34.75	47.65	69.50	-	99.30	114.0	129.00	780
7/4.75	14.0	43.40	59.45	86.80	-	124.0	142.7	161.3	970
19/1.00	5.0	5.22	7.16	10.45	-	14.92	17.16	19.40	120
19/1.25	6.3	8.16	11.19	16.32	-	23.32	26.81	30.31	180
19/1.40	7.0	10.24	14.04	20.47	-	29.25	33.64	38.02	230
19/1.60	8.0	13.37	18.35	26.75	-	38.20	43.93	49.66	300
19/2.00	10.0	20.90	28.65	41.78	50.74	59.69	68.64	77.60	470
19/2.50	12.5	32.65	44.80	65.29	79.28	93.27	107.3	121.3	730
19/3.00	15.0	47.00	64.50	94.00	114.1	134.3	154.5	174.6	1050
19/3.55	17.8	65.80	90.27	131.6	159.9	188.0	216.3	244.5	1470
19/4.00	20.0	83.55	114.6	167.1	203.0	238.7	274.6	310.4	1870
19/4.75	23.8	117.85	161.6	235.7	286.0	336.7	387.2	437.7	2630

* The construction of this strand consists of six wires of 1.40 mm diameter on a centre wire of 1.50 mm diameter, the diameter of the centre wire shall not be less than 0.08 mm nor more than 0.12 mm greater than the diameter of the outer wire.

Copper Clad Steel

CCS

Characteristics and Compare with Copper Wire

	Characteristics		CCS Wire			T2 Copper
			21%IACS	30%IACS	40%IACS	
Structural Parameters	Copper in Volume(%)		11.6	26.0	32.5	100
	Copper in Mass (%)		11.7	28.4	35.3	100
	Density(g/cm ³)		7.99	8.15	8.24	8.89
Physical Property	Max.DC. Resistively (Q . mm7m)		0.08210	0.05862	0.04397	0.01724
	Conductivity(%IACS)		21	30	40	100
Dynamics Property	Tensile Strength (Mpa)	A	≥380	345~380	310~345	220~270
		H	≥825	825~1040	745~955	350~470
		TH	-	980~1235	1075	-
	Elongation	A	≥15	≥15	≥15	30~45
		H	≥1.0	≥1.0	≥1.0	0.5~2.0
		TH				-
Chemical Property		Exposed Steel Place Easily Corrosive			Good	

Copper Clad Aluminium

CCA

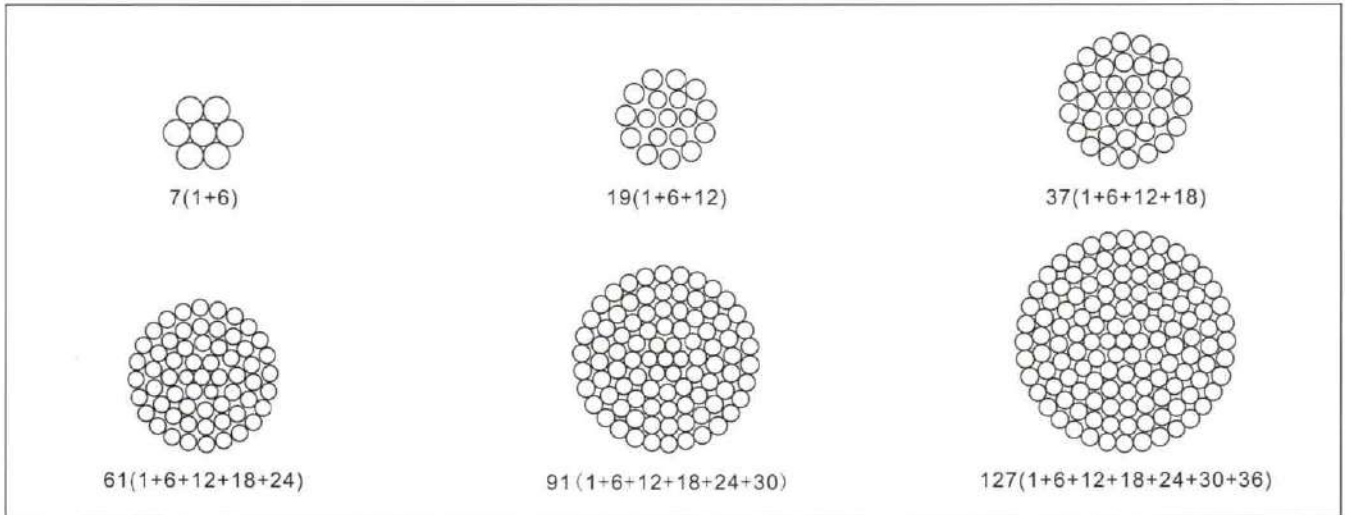
Diameter and Physical Characteristics

Nominal Diameter	Cross Section	Min. Copper Thickness(mm)		Mass(kg/km)		Max.DC. Resistance(Q/km)	
		10%	15%	10%	15%	10%	15%
mm	mm ²	h=0.0175d	h=0.025d	M=3.32S	M=3.63S	R=(0.02743/S) x 1000	R=(0.02676/S) x 1000
9.00	63.62	0.158	0.225	211.2	230.9	0.431	0.421
8.00	50.27	0.140	0.200	166.9	182.5	0.546	0.532
7.10	39.59	0.124	0.178	131.4	143.7	0.693	0.676
6.30	31.17	0.110	0.158	103.5	113.1	0.880	0.859
5.60	24.63	0.098	0.140	81.77	89.41	1.114	1.086
5.00	19.64	0.088	0.125	62.20	65.20	1.397	1.363
4.50	15.90	0.079	0.113	52.79	57.72	1.725	1.683
4.00	12.57	0.070	0.100	41.73	45.63	2.182	2.129
3.55	9.898	0.062	0.089	32.86	35.93	2.771	2.704
3.15	7.793	0.055	0.079	25.87	28.29	3.520	3.434
2.80	6.158	0.049	0.070	20.44	22.35	4.454	4.346
2.50	4.909	0.044	0.063	16.30	17.82	5.588	5.451
2.24	3.941	0.039	0.056	13.08	14.31	6.960	6.790
2.00	3.142	0.035	0.050	10.43	11.41	8.730	8.517

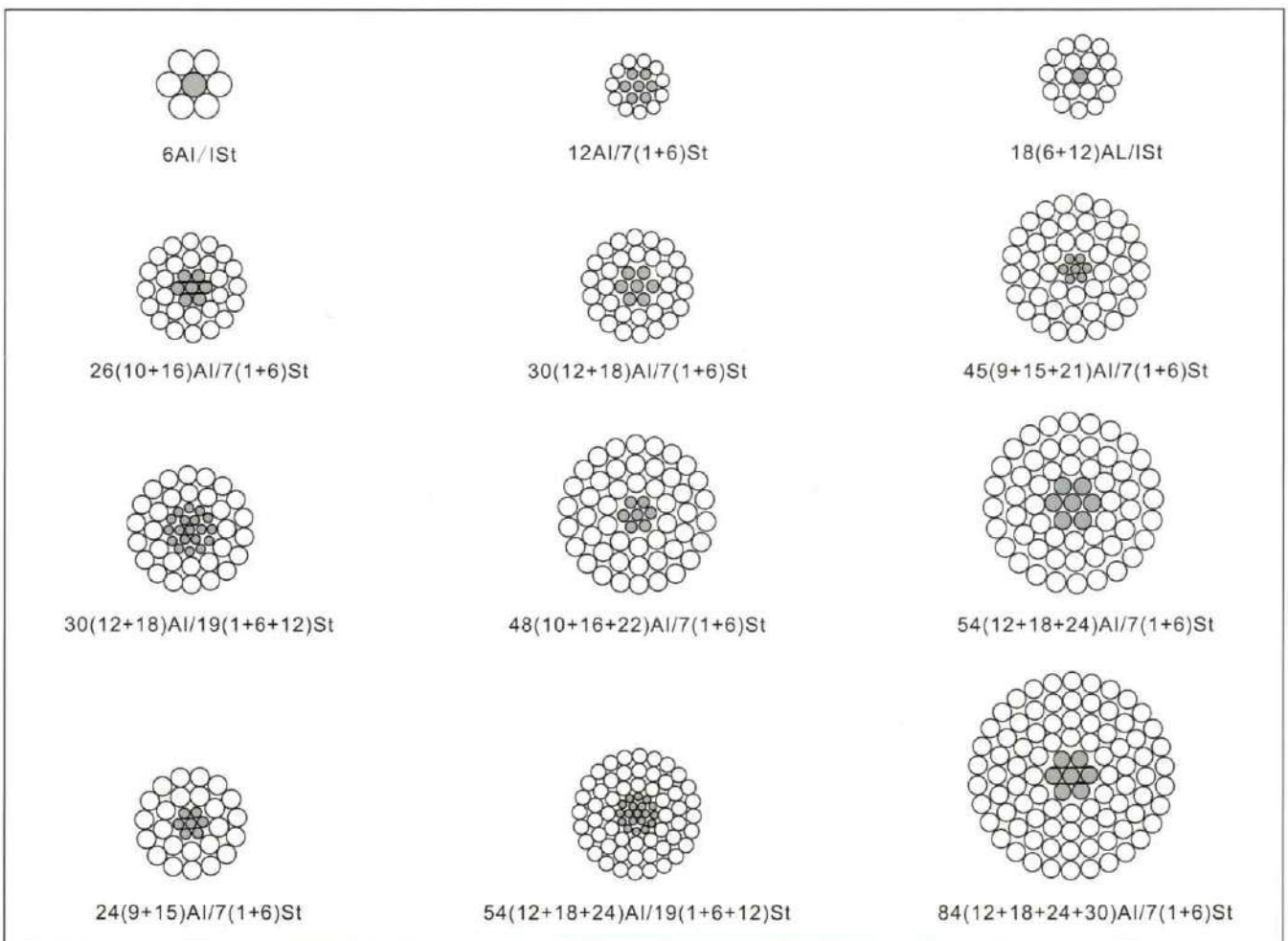


Technical Drawings of Overhead Conductors

1. AAC, AAAC



2. ACSR, AACSR




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