

APPLICATION:

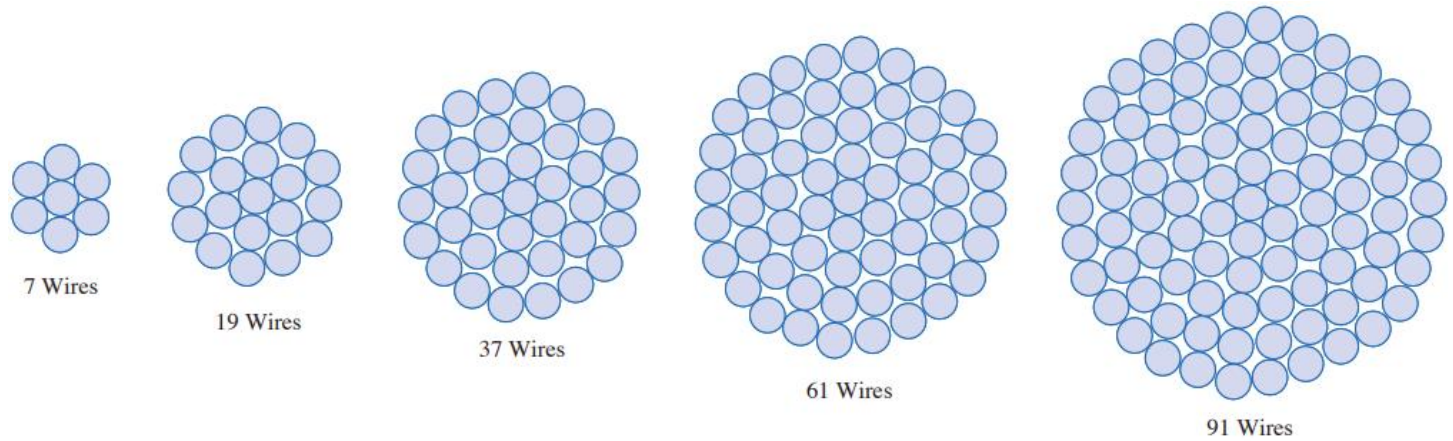
AAC – The full name: All Aluminum Conductor. It is for stranded 1350 aluminum conductors and is primarily used for overhead transmission and distribution services, where strength of standard ACSR cables is not required. These conductors are used in low, medium and high voltage overhead lines.

Class AA for bare conductors used in overhead lines.

Class A for conductors to be covered with weather- resistant materials and for bare conductors where greater flexibility is required.

CONDUCTORS

Concentric lay stranded conductor consisting of Aluminum Alloy 1350-H19 wires. AAC is available in both single layer and multi-layer constructions.



STANDARDS:

- 1.American Standard&Canadian national standards——ASTM B-230 ASTM B-231 CSA C49
- 2.British Standards——BS EN 50182/BS 215
- 3.German Standards——DIN 48201-5
- 4.International Electrotechnical Commission International Standards&China national standards——IEC 61089 GB/T 1179
- 5.Australian/New Zealand Standards——AS/NZS 1531-91
- 6.Russian National Standard——GOST 839-80

Parameter

ASTM B-230 ASTM B-231 CSA C49

Code	Nominal Area		Stranding	Overall Diameter	Weight	Rated Strength	Electrical Resistance	Current Rating*
	AWG&MCM	mm ²						
Peachbell	6	13.3	7/1.56	4.68	36.6	2.53	2.1477	75
Rose	4	21.1	7/1.96	5.88	58.2	3.91	1.3606	99
Iris	2	33.6	7/2.47	7.41	92.6	5.99	0.8567	132
Pansy	1	42.4	7/2.78	8.34	116.6	7.3	0.6763	153
Poppy	1/0	53.5	7/3.12	9.36	147.2	8.84	0.5369	176
Aster	2/0	67.4	7/3.50	10.5	185.7	11.1	0.4267	203
Phlox	3/0	85	7/3.93	11.79	233.9	13.5	0.3384	234
Oxlip	4/0	107.2	7/4.42	13.26	295.2	17	0.2675	270
Valerian	250	126.7	19/2.91	14.55	348.6	20.7	0.2274	299
Sneezewort	250	126.7	7/4.80	14.4	348.8	20.1	0.2269	299
Laurel	266.8	135.2	19/3.01	15.05	372.2	22.1	0.2125	312
Daisy	266.8	135.2	7/4.96	14.88	372.3	21.4	0.2125	311

Peony	300	152	19/3.19	15.95	418.3	24.3	0.1892	335
Tulip	336.4	170.5	19/3.38	16.9	469.5	27.3	0.1686	359
Daffodil	350	177.3	19/3.45	17.25	487.9	28.4	0.1618	369
Canna	397.5	201.4	19/3.67	18.35	554.9	31.6	0.143	397
Goldentuft	450	228	19/3.91	19.55	627.6	35	0.126	429
Syringa	477	241.7	37/2.88	20.16	664.8	38.6	0.1192	444
Cosmos	477	241.7	19/4.02	20.1	664.8	37	0.1192	444
Hyacinth	500	253.3	37/2.95	20.65	696.8	40.5	0.1136	458
Zinnia	500	253.3	19/4.12	20.6	697.1	38.9	0.1134	458
Dahlia	556.5	282	19/4.35	21.75	775.8	43.3	0.1018	489
Mistletoe	556.5	282	37/3.12	21.84	775.7	44.3	0.1016	490
Meadowsweet	600	304	37/3.23	22.61	836.3	47.5	0.0948	511
Orchid	636	322.3	37/3.33	23.31	886.9	50.4	0.0892	530
Heuchera	650	329.4	37/3.37	23.59	907.4	51.7	0.0871	538
Flag	700	354.7	61/2.72	24.48	975.8	57.1	0.0811	561
Varbena	700	354.7	37/3.49	24.43	975.7	55.4	0.0812	561
Nasturtium	715.5	362.6	61/2.75	24.75	998.5	58.4	0.0793	569
Violet	715.5	362.6	37/3.53	24.71	998.5	56.7	0.0794	568
Cattail	750	380	61/2.82	25.38	1046	60.3	0.0754	587
Petunia	750	380	37/3.62	25.34	1046	58.6	0.0755	586
Lilac	795	402.8	61/2.90	26.1	1110	63.8	0.0713	607
Arbutus	795	402.8	37/3.72	26.04	1109	61.8	0.0715	605
Snapdragon	900	456	61/3.09	27.81	1256	70.8	0.0628	654
Cockscomb	900	456	37/3.96	27.72	1256	68.4	0.0631	652
Goldenrod	954	483.4	61/3.18	28.62	1331	75	0.0593	677
Magnolia	954	483.4	37/4.08	28.56	1331	72.6	0.0594	676
Camellia	1000	506.7	61/3.25	29.25	1394	78.3	0.0568	695
Hawkweed	1000	506.7	37/4.18	29.26	1395	76.2	0.0566	696
Larkspur	1033.5	523.7	61/3.31	29.79	1442	81.3	0.0547	710
Bluebell	1033.5	523.7	37/4.25	29.75	1441	78.8	0.0547	710
Marigold	1113	564	61/3.43	30.87	1553	87.3	0.051	740
Hawthorn	1192.5	604.2	61/3.55	31.95	1662	93.5	0.0476	771
Narsissus	1272	644.5	61/3.67	33.03	1774	98.1	0.0445	802
Columbine	1351	694.8	61/3.78	34.02	1884	104	0.042	829
Carnation	1431	725.1	61/3.89	35.01	1997	108	0.0396	858
Gladiolus	1510.5	765.4	61/4.00	36	2108	114	0.0375	885
Coreopsis	1590	805.7	61/4.10	36.9	2216	120	0.0357	911
Jassamine	1750	886.7	61/4.30	38.7	2442	132	0.0324	962
Cowslip	2000	1013	91/3.77	41.47	2787	153	0.0286	1032

Sagebrush	2250	1140	91/3.99	43.89	3166	167	0.0255	1099
Lupine	2500	1267	91/4.21	46.31	3519	186	0.0229	1163
Bitterrot	2750	1393	91/4.42	48.62	3872	205	0.0208	1223
Trillium	3000	1520	127/3.90	50.7	4226	223	0.0193	1271
Bluebonnet	3500	1773	127/4.22	54.86	4977	261	0.0165	1373

BS EN 50182/BS 215

Code	Nominal Area		Stranding	Overall Diameter	Weight	Rated Strength	Electrical Resistance	Current Rating*
	Nominal	Teorical						
	mm ²	mm ²	No.×mm	mm	kg/km	KN	Ω/Km	A
Midge	22	23.33	7/2.06	6.18	64	3.99	1.227	106
Gnat	25	26.8	7/2.21	6.6	73.8	4.83	1.0643	122
Mosquito	35	37	7/2.59	7.8	102.1	6.27	0.7749	141
Ladybird	40	42.8	7/2.79	8.4	117.9	7.28	0.6678	157
Ant	50	52.83	7/3.10	9.3	145	8.28	0.5419	175
Fly	60	63.55	7/3.40	10.2	174	9.9	0.4505	196
Bluebottle	70	73.7	7/3.66	11	202	11.34	0.3881	215
Earwing	75	78.5	7/3.78	11.4	215	11.94	0.3644	232
Grasshopper	80	84.1	7/3.91	11.7	230	12.78	0.3406	249
Clegg	90	95.6	7/4.17	12.5	262	14.53	0.2944	253
Wasp	100	106	7/4.39	13.17	290	16	0.2702	268
Beetle	100	106	19/2.67	13.4	293	17.42	0.2704	260
Bee	125	132	7/4.90	14.7	361	19.44	0.2169	325
Cricket	150	157.9	7/5.36	16.1	432	23.85	0.1818	345
Hornet	150	157.6	19/3.25	16.25	434	25.7	0.1825	342
Caterpillar	175	186	19/3.53	17.7	512	28.63	0.1547	399
Chater	200	213.2	19/3.78	18.9	587	35.4	0.1349	412
Spider	225	236.9	19/3.99	20	652	36.01	0.1211	462
Cockroach	250	265.7	19/4.22	21.1	731	40.4	0.1083	471
Butterfly	300	322.7	19/4.65	23.25	888	48.75	0.08916	530
Moth	350	373.3	19/5.00	25	1027	56.37	0.07711	562
Drone	350	373.3	37/3.58	25.1	1029	57.45	0.07741	560
Locust	400	428.5	19/5.36	26.8	1179	64.73	0.0671	580
Centipede	400	415.2	37/3.78	26.46	1145	63.1	0.06944	616
Maybug	475	486,1	37/4,09	28,6	1342	74.01	0,05900	740
Scorpion	500	529,8	37/4,27	29,9	1460	79.98	0,05400	887
Cicada	600	628,3	37/4,65	32,6	1733	94.95	0,04500	1056
Tarantula	750	794.6	37/5.23	36.6	2191	120.1	0.03627	1320

IEC 61089 GB/T 1179

Code	Nominal Area	Stranding	Overall Diameter	Weight	Rated Strength	Electrical Resistance	Current Rating*
	mm ²	No.×mm	mm	kg/km	KN	Ω/Km	A
10	10	7/1.35	4.05	27.4	1.95	2.8633	62
16	16	7/1.71	5.13	43.8	3.04	1.7896	84
25	25	7/2.13	6.39	68.4	4.5	1.1453	110
40	40	7/2.70	8.1	109.4	6.8	0.7158	147
63	63	7/3.39	10.17	172.3	10.39	0.4545	195
100	100	19/2.59	12.95	274.8	17	0.2877	259
125	125	19/2.89	14.45	343.6	21.25	0.2302	297

160	160	19/3.27	16.35	439.8	26.4	0.1798	345
200	200	19/3.66	18.3	549.7	32	0.1439	396
250	250	19/4.09	20.45	687.1	40	0.1151	454
315	315	37/3.29	23.03	867.9	51.97	0.0916	522
400	400	37/3.71	25.97	1102	64	0.0721	603
450	450	37/3.94	27.58	1239.8	72	0.0641	647
500	500	37/4.15	29.05	1377.6	80	0.0577	688
560	560	37/4.39	30.73	1542.9	89.6	0.0515	736
630	630	61/3.63	32.67	1738.3	100.8	0.0458	789
710	710	61/3.85	34.65	1959.1	113.6	0.0407	845
800	800	61/4.09	36.81	2207.4	128	0.0361	905
900	900	61/4.33	38.97	2483.3	144	0.0321	967
1000	1000	61/4.57	41.13	2759.2	160	0.0289	1026
1120	1120	91/3.96	43.56	3093.5	179.2	0.0258	1091
1250	1250	91/4.18	45.98	3452.6	200	0.0231	1157
1400	1400	91/4.43	48.73	3866.9	224	0.0207	1226
1500	1500	91/4.58	50.38	4143.1	240	0.0193	1270

AS/NZS 1531-91

Conductor codename	Stranding and wire diameter	Nominal overall diameter	Cross-sectional area	Approximate mass	Breaking load	Modulus of elasticity	Coefficient of linear expansion	DC resist. at 20°C	AC resist. at 50Hz
	no/mm	mm	mm ²	kg/km	kN	GPa	x 10 ⁻⁶ /°C	Ω/km	Ω/km
Leo	7/2.50	7.5	34.4	94.3	5.71	65	23	0.833	1.02
Leonids	7/2.75	8.25	41.6	113	6.72	65	23	0.689	0.842
Libra	7/3.00	9	49.5	135	7.98	65	23	0.579	0.707
Mars	7/3.75	11.3	77.3	211	11.8	65	23	0.37	0.452
Mercury	7/4.50	13.5	111	304	16.9	65	23	0.258	0.315
Moon	7/4.75	14.3	124	339	18.9	65	23	0.232	0.284
Neptune	19/3.25	16.3	158	433	24.7	65	23	0.183	0.224
Orion	19/3.50	17.5	183	503	28.7	65	23	0.157	0.192
Pluto	19/3.75	18.8	210	576	31.9	65	23	0.137	0.168
Saturn	37/3.00	21	262	721	42.2	64	23	0.11	0.135
Sirius	37/3.25	22.8	307	845	48.2	64	23	0.094	0.116
Taurus	19/4.75	23.8	337	924	51.3	65	23	0.0857	0.105
Triton	37/3.75	26.3	409	1120	62.2	64	23	0.0706	0.0872
Uranus	61/3.25	29.3	506	1400	75.2	64	23	0.0572	0.071
Ursula	61/3.50	31.5	587	1620	87.3	64	23	0.0493	0.0616
Venus	61/3.75	33.8	673	1860	97.2	64	23	0.0429	0.0539

GOST 839-80 Type ACP Wire, Greased All Aluminium Conductor

Nominal Corss-section	Number of Wires	Wire Diameter	Calculated Cross-section	Overall Diameter	D.C. Resistance at 20	Min. Breaking Load	Conductor Weight	Grease Weight
mm ²		mm	mm ²	mm	Ω/km		kg/km	kg/km
10	7	1,35	10,0	4,05	28,631	1950	27,4	—
16	7	1,70	15,9	5,10	18,007	3021	43,0	0,5
25	7	2,13	24,9	6,40	11,498	4500	68,0	0,5
35	7	2,50	34,3	7,50	0,8347	5913	94,0	0,5
40	7	2,70	40,0	8,09	0,7157	6800	109,4	—
50	7	3,00	49,5	9,00	0,5784	8198	135,0	0,5
63	7	3,39	63,0	10,16	0,4544	10390	172,3	—

70	7	3,55	69,3	10,70	0,4131	11288	189,0	1,0
95	7	4,10	92,4	12,30	0,3114	14784	252,0	1,0
100	19	2,59	100,0	12,94	0,2877	17000	274,9	–
120	19	2,80	117,0	14,00	0,2459	19890	321,0	16
125	19	2,89	125,0	14,47	0,2301	21250	343,6	–
150	19	3,15	148,0	15,80	0,1944	24420	406,0	20
160	19	3,27	160,0	16,37	0,1798	26400	439,8	–
185	19	3,50	182,8	17,50	0,1574	29832	502,0	25
200	19	3,66	200,0	18,30	0,1438	32000	549,7	–
240	19	4,00	238,7	20,00	0,1205	38192	655,0	33
250	19	4,09	250,0	20,47	0,1150	40000	687,1	–
300	37	3,15	288,3	22,10	0,1000	47569	794,0	54
315	37	3,29	315,0	23,05	0,0915	51970	867,5	–
350	37	3,45	345,8	24,20	0,0833	57057	952,0	65
400	37	3,66	389,2	25,60	0,0740	63420	1072,0	73
450	37	3,90	449,1	27,30	0,0642	71856	1206,0	84
500	37	4,15	500,4	29,10	0,0576	80000	1378,0	94
550	61	3,37	544,0	30,30	0,0529	89760	1500,0	117
560	37	4,39	560,0	30,73	0,0531	89600	1542,2	–
600	61	3,50	586,8	31,50	0,0491	95632	1618,0	126
630	61	3,63	630,0	32,64	0,0458	100800	1738,4	–
650	61	3,66	641,7	32,90	0,0450	104575	1771,0	138
700	61	3,80	691,7	34,20	0,0417	112725	1902,0	149
710	61	3,85	710,0	34,65	0,0406	113600	1959,2	–
750	61	3,95	747,4	35,60	0,0386	119584	2062,0	161

GOST 839-80 AAC Conductor, Type a Wire, All Aluminium Conductor

Nominal Cross-section	Number of Wires	Wire Diameter	Calculated Cross-section	Overall Diameter	D.C. Resistance at 20	Min. Breaking Load	Conductor Weight
mm ²		mm	mm ²	mm	Ω/km		kg/km
10	7	1,35	10,0	4,05	28,631	1950	27,4
16	7	1,70	15,9	5,10	18,007	3021	43,0
25	7	2,13	24,9	6,40	11,498	4500	68,0
35	7	2,50	34,3	7,50	0,8347	5913	94,0
40	7	2,70	40,0	8,09	0,7157	6800	109,4
50	7	3,00	49,5	9,00	0,5784	8198	135,0
63	7	3,39	63,0	10,16	0,4544	10390	172,3
70	7	3,55	69,3	10,70	0,4131	11288	189,0
95	7	4,10	92,4	12,30	0,3114	14784	252,0
100	19	2,59	100,0	12,94	0,2877	17000	274,9
120	19	2,80	117,0	14,00	0,2459	19890	321,0
125	19	2,89	125,0	14,47	0,2301	21250	343,6
150	19	3,15	148,0	15,80	0,1944	24420	406,0
160	19	3,27	160,0	16,37	0,1798	26400	439,8
185	19	3,50	182,8	17,50	0,1574	29832	502,0
200	19	3,66	200,0	18,30	0,1438	32000	549,7
240	19	4,00	238,7	20,00	0,1205	38192	655,0
250	19	4,09	250,0	20,47	0,1150	40000	687,1
300	37	3,15	288,3	22,10	0,1000	47569	794,0
315	37	3,29	315,0	23,05	0,0915	51970	867,5
350	37	3,45	345,8	24,20	0,0833	57057	952,0
400	37	3,66	389,2	25,60	0,0740	63420	1072,0

450	37	3,90	449,1	27,30	0,0642	71856	1206,0
500	37	4,15	500,4	29,10	0,0576	80000	1378,0
550	61	3,37	544,0	30,30	0,0529	89760	1500,0
560	37	4,39	560,0	30,73	0,0531	89600	1542,2
600	61	3,50	586,8	31,50	0,0491	95632	1618,0
630	61	3,63	630,0	32,64	0,0458	100800	1738,4
650	61	3,66	641,7	32,90	0,0450	104575	1771,0
700	61	3,80	691,7	34,20	0,0417	112725	1902,0
710	61	3,85	710,0	34,65	0,0406	113600	1959,2
750	61	3,95	747,4	35,60	0,0386	119584	2062,0