Product Overview

AAAC (All Aluminium Alloy Conductor) is a bare overhead electrical conductor manufactured from high-strength aluminium-magnesium-silicon alloy wires, typically 6201-T81. Unlike AAC conductors made from pure electrical-grade aluminium, AAAC uses specially alloyed aluminium to achieve higher mechanical strength and improved corrosion resistance.

With its excellent strength-to-weight ratio, lightweight construction and good resistance to environmental corrosion, AAAC is widely used in overhead power transmission and distribution networks. It is particularly suitable for medium- and long-span applications, coastal regions and industrial environments where mechanical strength and corrosion resistance are important.

QZ Cable manufactures AAAC conductors in various sizes and stranding configurations to meet international standards and project-specific requirements.

Construction

AAAC conductors are manufactured using concentric-lay-stranded aluminium-magnesium-silicon alloy wires, typically 6201-T81.

The alloy contains magnesium and silicon as its principal alloying elements, generally in proportions around 0.6% each, subject to the applicable material specification.

Unlike ACSR conductors, AAAC has no steel core. All strands are made from high-strength aluminium alloy, creating a homogeneous all-alloy construction.

The conductor can be supplied in different stranding configurations, including 7, 19, 37 and 61 wires, depending on the required cross-sectional area, mechanical performance and application.

Key Characteristics

High Strength-to-Weight Ratio

AAAC offers higher mechanical strength than conventional AAC, while maintaining a lightweight all-aluminium construction. This makes it suitable for overhead lines requiring improved mechanical performance without a steel reinforcement core.

Excellent Corrosion Resistance

The homogeneous aluminium alloy construction provides good resistance to atmospheric corrosion. Without a steel core, AAAC also avoids galvanic corrosion associated with dissimilar metal interfaces in certain conductor designs.

Lightweight Construction

AAAC conductors combine relatively low weight with high mechanical strength, making them suitable for overhead distribution and transmission applications where structural loading is an important consideration.

Improved Sag Performance

★ Address: West Industrial Park, Zhulin Town, Gongyi City, Henan Province, China. ★
★ Tel:+86-371-5502-1747 Mob:+86-173-3570-4553 www.qzcablegroup.com E-mail: info@qzcablegroup.com ★

The higher tensile strength of AAAC compared with AAC can help achieve improved sag characteristics under suitable design conditions. Actual sag depends on conductor size, span length, installation tension, temperature and environmental loading.

Good Electrical Performance

AAAC provides reliable electrical conductivity for overhead power networks. Its conductivity is generally lower than that of pure aluminium AAC, reflecting the different electrical and mechanical properties of the alloy material.

Abrasion Resistance

The 6201 aluminium alloy wires offer good mechanical durability and abrasion resistance, supporting reliable performance in outdoor overhead line applications.

Common Applications

Primary and Secondary Power Distribution

AAAC conductors are widely used in primary and secondary overhead distribution networks where a balance of electrical performance, mechanical strength and corrosion resistance is required.

Medium- and Long-Span Overhead Lines

7-wire and 19-wire constructions are commonly used for distribution applications and medium spans, while 37-wire and 61-wire constructions can be used for transmission and sub-transmission lines, depending on the conductor design.

Coastal and Marine Environments

The all-alloy construction provides good corrosion resistance, making AAAC suitable for coastal power networks and areas exposed to humid or salt-laden atmospheres.

Industrial and Polluted Areas

AAAC can be used in industrial environments where atmospheric corrosion resistance is an important consideration.

Transmission and Sub-Transmission Networks

Larger AAAC configurations are suitable for overhead transmission and sub-transmission projects where high mechanical strength, reduced conductor weight and corrosion resistance are required.

AAAC vs. AAC vs. ACSR

★ Address: West Industrial Park, Zhulin Town, Gongyi City, Henan Province, China. ★
★ Tel:+86-371-5502-1747 Mob:+86-173-3570-4553 www.qzcablegroup.com E-mail: info@qzcablegroup.com ★

Feature	AAC	AAAC	ACSR
Full name	All Aluminium Conductor	All Aluminium Alloy Conductor	Aluminium Conductor Steel Reinforced
Main material	Aluminum 1350-H19	Aluminum alloy 6201-T81	Aluminum 1350 + steel
Construction	All aluminum	All aluminum alloy	Aluminum strands with steel core
Tensile strength	Relatively low	Higher than AAC	Generally high
Strength-to-weight ratio	Relatively low	High	High
Electrical conductivity	High	Lower than AAC	Depends on conductor design
Corrosion resistance	Good	Very good	Depends on steel core coating and environment
Typical application	Short-span distribution	Distribution and transmission	Long-span transmission

Why Choose AAAC Instead of AAC or ACSR?

Compared with AAC, AAAC provides higher mechanical strength and is more suitable for applications requiring longer spans.

Compared with ACSR, AAAC eliminates the steel core and provides a homogeneous aluminium alloy construction with good corrosion resistance. It can be an attractive option for coastal and industrial environments, particularly where the required mechanical loading can be met without steel reinforcement.

The final conductor selection should be based on electrical loading, span length, wind and ice loading, installation tension, allowable sag and project specifications.

Available Stranding Configurations

AAAC conductors are available in different concentric-lay-stranded configurations.

Stranding	Typical Application
7 wires	Overhead distribution and shorter spans
19 wires	Distribution networks and medium spans
37 wires	Transmission and sub-transmission
61 wires	Larger overhead transmission applications

Actual availability and suitability depend on the required cross-sectional area, conductor diameter, mechanical properties and applicable standard.

Standards

AAAC conductors can be manufactured and supplied in accordance with the following international standards, subject to the required conductor construction and project specifications:

- ASTM B398 – Aluminum-Alloy 6201-T81 and 6201-T83 Wire for Electrical Purposes.

★ Address: West Industrial Park, Zhulin Town, Gongyi City, Henan Province, China. ★
★ Tel:+86-371-5502-1747 Mob:+86-173-3570-4553 www.qzcablegroup.com E-mail: info@qzcablegroup.com ★

- ASTM B399 – Concentric-Lay-Stranded Aluminum-Alloy 6201-T81 Conductors.
- IEC 61089 – Round Wire Concentric Lay Overhead Electrical Stranded Conductors.
- BS EN 50182 – Conductors for Overhead Lines – Round Wire Concentric Lay Stranded Conductors.
- AS 1531 – Type AAAC/1120 Conductors – Bare Overhead – Aluminium alloy 1120 conductors
- NF C 34-125 – (often designated by codes like ASTER), Almelec is a standardized high-strength aluminum alloy (specifically AA-6201, an aluminum-magnesium-silicon alloy) used to manufacture AAAC (All Aluminum Alloy Conductor) bare overhead electrical cables

Additional requirements may be specified by the National Electrical Code (NEC), where applicable. RUS acceptance or compliance requirements can also be considered for projects that specify them, subject to product approval and documentation.

Electrical Properties

Density@20°C	2.70 kg/dm
Temperature Coefficient@20°C	0.00360 (°C)
Resistivity@20°C	0.0326 Ohms mm²/m
Linear Expansivity	23 x10-6(°C)

Service Conditions

Ambient Temperature	-5°C - 50°C
Wind Pressure	80 – 130kg/m²
Seismic Acceleration	0.12 - 0.05g
Isokeraunic Level	10 – 18
Relative Humidity	5 – 100%

Technical Data

IEC 61089

AAAC/A2

Code Number	Area	No.of Wires	Diameter		Linear Mass	Rated Strength	D.C. Resistance
			Wire	Cond.			
	mm²		mm	mm	kg/km	kN	Ω/km
16	18.4	7	1.83	5.49	50.4	5.43	1.7896
25	28.8	7	2.29	6.86	78.7	8.49	1.1453
40	46.0	7	2.89	8.68	125.9	13.58	0.7158
63	72.5	7	3.63	10.9	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

★ Address: West Industrial Park, Zhulin Town, Gongyi City, Henan Province, China. ★
★ Tel:+86-371-5502-1747 Mob:+86-173-3570-4553 www.qzcablegroup.com E-mail: info@qzcablegroup.com ★

Code Number	Area	No.of Wires	Diameter		Linear Mass	Rated Strength	D.C. Resistance
			Wire	Cond.			
	mm²		mm	mm	kg/km	kN	Ω/km
160	184	19	3.51	17.6	506.1	54.32	0.1798
200	230	19	3.93	19.6	632.7	67.91	0.1439
250	288	19	4.39	22.0	790.8	84.88	0.1151
315	363	37	3.53	24.7	998.9	106.95	0.0916
400	460	37	3.98	27.9	1268.4	135.81	0.0721
450	518	37	4.22	29.6	1426.9	152.79	0.0641
500	575	37	4.45	31.2	1585.5	169.76	0.0577
560	645	61	3.67	33.0	1778.4	190.14	0.0516
630	725	61	3.89	35.0	2000.7	213.90	0.0458
710	817	61	4.13	37.2	2254.8	241.07	0.0407
800	921	61	4.38	39.5	2540.6	271.62	0.0361
900	1036	91	3.81	41.8	2861.1	305.58	0.0321
1000	1151	91	4.01	44.1	3179.0	339.53	0.0289
1120	1289	91	4.25	46.7	3560.5	380.27	0.0258
1250	1439	91	4.49	49.4	3973.7	424.41	0.0231

AAAC / A3

Code Number	Area	No.of Wires	Diameter		Linear Mass	Rated Strength	D.C. Resistance
			Wire	Cond.			
	mm²		mm	mm	kg/km	kN	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	8.72	127.1	15.10	0.7158
63	73.2	7	3.65	10.9	200.2	23.06	0.4545
100	116	19	2.79	14.0	319.3	37.76	0.2877
125	145	19	3.12	15.6	399.2	47.20	0.2302
160	186	19	3.53	17.6	511.0	58.56	0.1798
200	232	19	3.95	19.7	638.7	73.20	0.1439
250	290	19	4.41	22.1	798.4	91.50	0.1151
315	366	37	3.55	24.8	1008.4	115.29	0.0916
400	465	37	4.00	28.0	1280.5	146.40	0.0721
450	523	37	4.24	29.7	1440.5	164.70	0.0641
500	581	37	4.47	31.3	1600.6	183.00	0.0577
560	651	61	3.69	33.2	1795.3	204.96	0.0516
630	732	61	3.91	35.2	2019.8	230.58	0.0458

★ Address: West Industrial Park, Zhulin Town, Gongyi City, Henan Province, China. ★
★ Tel:+86-371-5502-1747 Mob:+86-173-3570-4553 www.qzcablegroup.com E-mail: info@qzcablegroup.com ★

Code Number	Area	No.of Wires	Diameter		Linear Mass	Rated Strength	D.C. Resistance
			Wire	Cond.			
	mm²		mm	mm	kg/km	kN	Ω/km
710	825	61	4.15	37.3	2276.2	259.86	0.0407
800	930	61	4.40	39.6	2564.8	292.80	0.0361
900	1046	91	3.83	42.1	2888.3	329.40	0.0321
1000	1162	91	4.03	44.4	3209.3	366.00	0.0289
1120	1301	91	4.27	46.9	3594.4	409.92	0.0258

ASTM B 399

Conductor Size		No. and Diameter	Overall Diameter	Mass	Rated Strength	Nominal DC Resistance at 20°C
AWG or MCM	mm²	mm	mm	kg/km	kN	Ω/km
6	13.2	7/1.55	4.65	36.20	4.18	2.5361
4	21.1	7/1.96	5.88	57.90	6.69	1.5860
2	33.5	7/2.47	7.41	92.00	10.6	0.99870
1/0	53.5	7/3.12	9.36	146.8	17.0	0.62592
2/0	67.3	7/3.50	10.50	184.8	20.4	0.49738
3/0	84.9	7/3.93	11.79	233.0	25.7	0.39450
4/0	107	7/4.42	13.26	294.7	32.5	0.31188
250	126	19/2.91	14.55	346.7	38.8	0.26509
300	152	19/3.19	15.95	416.7	46.6	0.22059
350	178	19/3.45	17.25	487.3	52.0	0.18860
400	203	19/3.69	18.45	557.5	59.5	0.16486
450	228	19/3.91	19.55	626.0	66.8	0.14683
500	253	19/4.12	20.60	695.0	74.2	0.13224
550	279	37/3.10	21.70	766.2	83.9	0.11995
600	303	37/3.23	22.61	831.9	91.0	0.11049
650	330	37/3.37	23.59	905.5	94.9	0.10150
700	354	37/3.49	24.43	971.2	101	0.09464
750	381	37/3.62	25.34	1045	109	0.08796
800	404	37/3.73	26.11	1109	116	0.08285
900	456	37/3.96	27.72	1250	131	0.07351
1000	508	37/4.18	29.26	1393	146	0.06597
1250	631	61/3.63	32.67	1732	179	0.05306
1500	759	61/3.98	35.82	2082	215	0.04414
1750	886	61/4.30	38.70	2431	251	0.03781

★ Address: West Industrial Park, Zhulin Town, Gongyi City, Henan Province, China. ★
★ Tel:+86-371-5502-1747 Mob:+86-173-3570-4553 www.qzcablegroup.com E-mail: info@qzcablegroup.com ★

Code Name	Conductor Size		No. and Diameter	Overall Diameter	Mass	Rated Strength	Nominal DC Resistance at 20°C
MCM	mm²	mm	mm	kg/km	kN	Ω/km	
AKRON	30.58	15.5	7/1.68	5.04	42.58	4.92	2.159
ALTON	48.69	24.7	7/2.12	6.36	67.80	7.83	1.356
AMES	77.47	39.2	7/2.67	8.01	107.5	12.4	0.8547
AZUSA	123.3	62.4	7/3.37	10.11	171.3	18.9	0.5365
ANAHEIM	155.4	78.6	7/3.78	11.34	215.6	23.8	0.4264
AMHERST	195.7	99.3	7/4.25	12.75	272.5	30.0	0.3373
ALLIANCE	246.9	125	7/4.77	14.31	343.2	37.8	0.2678
BUTTE	312.8	159	19/3.26	16.30	435.1	46.5	0.2112
CANTON	394.5	200	19/3.66	18.30	548.5	58.6	0.1676
CAIRO	465.4	236	19/3.98	19.90	648.6	69.2	0.1417
DARIEN	559.5	284	19/4.36	21.80	778.3	83.1	0.1181
ELGIN	652.4	331	19/4.71	23.55	908.3	97.0	0.1012
FLINT	740.8	375	37/3.59	25.13	1028	107	0.08944
GREELEY	927.2	470	37/4.02	28.14	1289	135	0.07133
—	1077.4	547	61/3.38	30.42	1502	156	0.06120
—	1165.1	590	61/3.51	31.59	1620	167	0.05675
—	1259.6	638	61/3.65	32.85	1751	181	0.05248
—	1348.8	685	61/3.78	34.02	1878	194	0.04893
—	1439.2	729	61/3.90	35.10	1999	207	0.04597

BS EN 50182(Germany)

Code	Old Code	Area	No. of Wires	Diameter		Mass per Unit Length	Rated Strength	DC Resistance
				Wire	Cond.			
		mm²		mm	mm	kg/km	kN	Ω/km
16-AL3	16	15.9	7	1.70	5.10	43.4	4.69	2.0701
24-AL3	25	24.2	7	2.10	6.30	66.2	7.15	1.3566
34-AL3	35	34.4	7	2.50	7.50	93.8	10.14	0.9572
49-AL3	50	49.5	7	3.00	9.00	135.1	14.60	0.6647
48-AL3	50	48.3	19	1.80	9.00	132.7	14.26	0.6841
66-AL3	70	65.8	19	2.10	10.5	180.7	19.41	0.5026
93-AL3	95	93.3	19	2.50	12.5	256.0	27.51	0.3546
117-AL3	120	117.0	19	2.80	14.0	321.2	34.51	0.2827
147-AL3	150	147.1	37	2.25	15.8	405.3	43.40	0.2256
182-AL3	185	181.6	37	2.50	17.5	500.3	53.58	0.1827
243-AL3	240	242.5	61	2.25	20.3	670.3	71.55	0.1373

★ Address: West Industrial Park, Zhulin Town, Gongyi City, Henan Province, China. ★
★ Tel:+86-371-5502-1747 Mob:+86-173-3570-4553 www.qzcablegroup.com E-mail: info@qzcablegroup.com ★

Code	Old Code	Area	No. of Wires	Diameter		Mass per Unit Length	Rated Strength	DC Resistance
				Wire	Cond.			
		mm²		mm	mm	kg/km	kN	Ω/km
299-AL3	300	299.4	61	2.50	22.5	827.5	88.33	0.1112
400-AL3	400	400.1	61	2.89	26.0	1105.9	118.04	0.0832
500-AL3	500	499.8	61	3.23	29.1	1381.4	147.45	0.0666
626-AL3	625	626.2	91	2.96	32.6	1737.7	184.73	0.0534
802-AL3	800	802.1	91	3.35	36.9	2225.8	236.62	0.0417
1000-AL3	1000	999.7	91	3.74	41.1	2774.3	294.91	0.0334

BS EN 50182

Code	Old code	Area	No.of Wires	Diameter		Mass per Unit Length	Rated Strength	DC Resistance
				Wire	Cond.			
		mm²		mm	mm	kg/km	kN	Ω/km
19-AL3	BOX	18.8	7	1.85	5.55	51.4	5.55	1.7480
24-AL3	ACACIA	23.8	7	2.08	6.24	64.9	7.02	1.3828
30-AL3	ALMOND	30.1	7	2.34	7.02	82.2	8.88	1.0926
35-AL3	CEDAR	35.5	7	2.54	7.62	96.8	10.46	0.9273
42-AL3	DEODAR	42.2	7	2.77	8.31	115.2	12.44	0.7797
48-AL3	FIR	47.8	7	2.95	8.85	130.6	14.11	0.6875
60-AL3	HAZEL	59.9	7	3.30	9.90	163.4	17.66	0.5494
72-AL3	PINE	71.6	7	3.61	10.8	195.6	21.14	0.4591
84-AL3	HOLLY	84.1	7	3.91	11.7	229.5	24.79	0.3913
90-AL3	WILLOW	89.7	7	4.04	12.1	245.0	26.47	0.3665
119-AL3	OAK	118.9	7	4.65	14.0	324.5	35.07	0.2767
151-AL3	MULBERRY	150.9	19	3.18	15.9	414.3	44.52	0.2192
181-AL3	ASH	180.7	19	3.48	17.4	496.1	53.31	0.1830
211-AL3	ELM	211.0	19	3.76	18.8	579.2	62.24	0.1568
239-AL3	POPLAR	239.4	37	2.87	20.1	659.4	70.61	0.1387
303-AL3	SYCAMORE	303.2	37	3.23	22.6	835.2	89.40	0.1095
362-AL3	UPAS	362.1	37	3.53	24.7	997.5	106.82	0.0917
479-AL3	YEW	479.0	37	4.06	28.4	1319.6	141.31	0.0693
498-AL3	TOTARA	498.1	37	4.14	29.0	1372.1	146.93	0.0666
587-AL3	RUBUS	586.9	61	3.50	31.5	1622.0	173.13	0.0567
659-AL3	SORBUS	659.4	61	3.71	33.4	1822.5	194.53	0.0505
821-AL3	ARAUCARIA	821.1	61	4.14	37.3	2269.4	242.24	0.0406
996-AL3	REDWOOD	996.2	61	4.56	41.0	2753.2	293.88	0.0334

★ Address: West Industrial Park, Zhulin Town, Gongyi City, Henan Province, China. ★
★ Tel:+86-371-5502-1747 Mob:+86-173-3570-4553 www.qzcablegroup.com E-mail: info@qzcablegroup.com ★

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
(mm2)	(No.)	(mm)	(mm)	(Kg/Km)	KN	(g/Km)	(Ampere)	(Ampere)
15.52	7	1.68	5.04	42.9	4.93	2.1588	74	88
24.71	7	2.12	6.36	67.8	7.85	1.3557	98	116
39.19	7	2.67	8.01	107.5	12.45	0.8547	129	154
62.44	7	3.37	10.11	171.3	19	0.5365	170	205
78.55	7	3.78	11.34	215.5	23.91	0.4264	195	236
99.3	7	4.25	12.75	272.5	30.22	0.3373	224	272
125.09	7	4.77	14.31	343.2	38.07	0.2678	256	313
158.59	19	3.26	16.3	435.1	46.75	0.2112	295	362
199.9	19	3.66	18.3	548.5	58.93	0.1676	337	417
236.38	19	3.98	19.9	648.6	69.69	0.1417	371	461
283.67	19	4.36	21.8	778.3	83.63	0.1181	412	514
331.04	19	4.71	23.55	908.3	97.59	0.1012	449	564
374.53	37	3.59	25.13	1027.6	108	0.0894	482	607
469.62	37	4.02	28.14	1288.5	135.5	0.0713	547	695
547.34	61	3.38	30.42	1501.8	156.2	0.0612	595	760
590.25	61	3.51	31.59	1619.5	168.4	0.0568	619	794
638.27	61	3.65	32.85	1751.3	182.1	0.0525	646	831
684.55	61	3.78	34.02	1878.3	195.3	0.0489	671	866
728.7	61	3.9	35.1	1999.4	207.9	0.046	693	897
33.54	7	2.47	7.41	92	10.66	0.9987	118	140
53.52	7	3.12	9.36	146.8	17.01	0.6259	155	187
67.35	7	3.5	10.5	184.8	20.5	0.4974	178	215
84.91	7	3.93	11.79	233	25.84	0.3945	204	247
107.41	7	4.42	13.26	294.7	32.69	0.3119	234	285
126.37	19	2.91	14.55	346.7	38.9	0.2651	258	316
151.85	19	3.19	15.95	416.7	46.75	0.2206	287	353
177.62	19	3.45	17.25	487.3	52.36	0.1886	315	388
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

★ Address: West Industrial Park, Zhulin Town, Gongyi City, Henan Province, China. ★
★ Tel:+86-371-5502-1747 Mob:+86-173-3570-4553 www.qzcablegroup.com E-mail: info@qzcablegroup.com ★

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
(mm2)	(No.)	(mm)	(mm)	(Kg/Km)	KN	(g/Km)	(Ampere)	(Ampere)
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

AS 1531

AAAC/1120

Code Name	Stranding and Wire Diameter	Approx. Overall Diameter	Cross-sectional Area	Approx. Mass	Calculated Breaking Load (CBL)	Equiv. Aluminium Area	D.C. Resistance at 20°C
	mm	mm	mm²	kg/km	KN	mm²	Ω/km
Chlorine	7/2.50	7.50	34.36	94.3	8.18	32.8	0.864
Chromium	7/2.75	8.25	41.58	113	9.91	39.7	0.713
Fluorine	7/3.00	9.0	49.48	135	11.8	47.2	0.599
Helium	7/3.75	11.3	77.28	211	17.6	73.7	0.383
Hydrogen	7/4.50	13.5	111.3	304	24.3	106	0.266
lodine	7/4.75	14.3	124.0	339	27.1	118	0.239
Krypton	19/3.25	16.3	157.6	433	37.4	150	0.189
Lutetium	19/3.50	17.5	182.8	503	41.7	173	0.163
Neon	19/3.75	18.8	209.8	576	47.8	199	0.142
Nitrogen	37/3.00	21.0	261.6	721	62.2	248	0.114
Nobelium	37/3.25	22.8	307.0	845	72.8	291	0.0973
Oxygen	19/4.75	23.8	336.7	924	73.6	320	0.0884
Phosphorus	37/3.75	26.3	408.5	1120	93.1	387	0.0731
Selenium	61/3.25	29.3	506.1	1400	114	478	0.0592
Silicon	61/3.50	31.5	586.9	1620	127	555	0.0511
Sulfur	61/3.75	33.8	673.4	1860	145	636	0.0444

★ Address: West Industrial Park, Zhulin Town, Gongyi City, Henan Province, China. ★
★ Tel:+86-371-5502-1747 Mob:+86-173-3570-4553 www.qzcablegroup.com E-mail: info@qzcablegroup.com ★

AAAC/6201

Code Name	Stranding and Wire Diameter	Approx. Overall Diameter	Cross-Sectional Area	Approx. Mass	Calculated Breaking Load (CBL)	Equiv. Aluminium Area	D.C. Resistance at 20°C
	mm	mm	mm²	kg/km	KN	mm²	Ω/km
Diamond	7/2.50	7.50	34.36	94.3	9.64	29.3	0.967
Dolomite	7/2.75	8.25	41.58	113	11.6	35.4	0.799
Emerald	7/3.00	9.0	49.48	135	13.9	42.2	0.671
Garnet	7/3.75	11.3	77.28	211	21.7	65.8	0.430
Jade	7/4.50	13.5	111.3	304	31.2	94.8	0.298
Jasper	7/4.75	14.3	124.0	339	34.8	106	0.268
Opal	19/3.25	16.3	157.6	433	44.2	134	0.212
Patronite	19/3.50	17.5	182.8	503	51.3	155	0.183
Pearl	19/3.75	18.8	209.8	576	58.8	178	0.159
Ruby	37/3.00	21.0	261.6	721	73.5	221	0.128
Ruthenium	37/3.25	22.8	307.0	845	86.1	260	0.109
Rutile	19/4.75	23.8	336.7	924	94.4	285	0.0991
Sapphire	37/3.75	26.3	408.5	1120	115	345	0.0819
Spinel	61/3.25	29.3	506.1	1400	135	427	0.0662
Tantalum	61/3.50	31.5	586.9	1620	156	495	0.0572
Topaz	61/3.75	33.8	673.4	1860	179	568	0.0498

DIN 48201

Nominal Area		Stranding	Overall Diameter	Weight	Rated Strength	Electrical Resistance	Current Rating*
Nominal	Teorical						
mm^2	mm^2	No.xmm	mm	kg/km	KN	Ω/Km	A
16	15.89	7/1.70	5.1	43	4.44	2.0742	78
25	24.25	7/2.10	6.3	66	6.77	1.3593	102
35	34.36	7/2.50	7.5	94	9.6	0.9591	126
50	49.48	7/3.00	9	135	13.82	0.666	158
50	48.35	19/1.80	9	133	13.5	0.6849	156
70	65.81	19/2.10	10.5	181	18.38	0.5032	189
95	93.27	19/2.50	12.5	256	26.05	0.3551	234
120	116.99	19/2.80	14	322	32.68	0.2831	269
150	147.11	37/2.25	15.8	406	41.09	0.2256	309
185	181.62	37/2.50	17.5	500	50.73	0.1828	352
240	242.54	61/2.25	20.3	670	67.74	0.1371	420

★ Address: West Industrial Park, Zhulin Town, Gongyi City, Henan Province, China. ★
★ Tel:+86-371-5502-1747 Mob:+86-173-3570-4553 www.qzcablegroup.com E-mail: info@qzcablegroup.com ★

Nominal Area		Stranding	Overall Diameter	Weight	Rated Strength	Electrical Resistance	Current Rating*
Nominal	Teorical						
mm^2	mm^2	No.xmm	mm	kg/km	KN	Ω/Km	A
300	299.43	61/2.50	22.5	827	83.63	0.111	477
400	400.14	61/2.89	26	1104	111.76	0.0831	568
500	499.83	61/3.23	29.1	1379	139.6	0.0665	649
625*	626.2	91/2.96	32.6	1732	174.9	0.0531	742
800*	802.09	91/3.35	36.9	2218	224.02	0.0415	857
1000*	999.71	91/3.74	41.1	2767	279.22	0.0333	971

FRENCH STANDARD NF C34-125 / NF EN50182

Code Name	Equivalent Copper Area	Stranding	Overall Diameter	Total Area	Weight	Rated Strength	Maximum DC Resistance at 26°C
	mm^2	N° / mm	mm	mm^2	kg/km	kN	Ω/km
ASTER 22	11.84	7/2.0	6.0	21.99	60	715	1.50
ASTER 34.4	18.0	7/2.5	7.5	34.36	94	1115	0.958
ASTER 54.6	28.6	7/3.15	9.45	54.55	149	1775	0.603
ASTER 75.5	41.3	19/2.25	11.25	75.54	208	2455	0.438
ASTER 117.0	63.9	19/2.8	14.0	117.0	322	3800	0.283
ASTER 148	80.9	19/3.15	15.75	148.1	407	4810	0.224
ASTER 181.6	99.2	37/2.5	17.5	181.6	500	5900	0.183
ASTER 228	124.5	37/2.8	19.6	227.8	627	7405	0.146
ASTER 288	157.6	37/3.15	22.05	288.3	794	9370	0.115
ASTER 366	200.1	37/3.55	27.85	366.2	1009	11535	0.0905
ASTER 570	311.6	61/3.45	31.05	570.2	1574	18530	0.0583
ASTER 851	464.8	91/3.45	37.95	850.7	2354	27650	0.0391

★ Address: West Industrial Park, Zhulin Town, Gongyi City, Henan Province, China. ★
★ Tel:+86-371-5502-1747 Mob:+86-173-3570-4553 www.qzcablegroup.com E-mail: info@qzcablegroup.com ★

Code Name	Equivalent Copper Area	Stranding	Overall Diameter	Total Area	Weight	Rated Strength	Maximum DC Resistance at 26°C
	mm^2	N° / mm	mm	mm^2	kg/km	kN	Ω/km
ASTER 1144	624.9	91/4.0	44.0	1143.5	3164	36020	0.0292
ASTER 1600	872.1	127/4.0	52.0	1595.9	4425	50270	0.0206

★ Address: West Industrial Park, Zhulin Town, Gongyi City, Henan Province, China. ★
★ Tel:+86-371-5502-1747 Mob:+86-173-3570-4553 www.qzcablegroup.com E-mail: info@qzcablegroup.com ★