

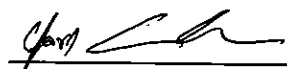
SPECIFICATION**For****AAC**

All Aluminium Stranded Conductor

BY 

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Rev.	Date	Description
0	25/09/2019	Issued specification

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CUSTOMER

Customer Document	Rev.

Remark:

This document is based on the Customer Document for the structure and properties of electric wire and cable only. If there are different points, will be shown in deviation table.

1. Scope

This specification covers bare all aluminium concentric stranded conductor to be use for overhead transmission line.

The conductors shall be in accordance with TIS 85-2548.

2. Component Wire

The component wire shall be hard drawn aluminium wire for electrical purposes.

The wire shall be clean, smooth and free from harmful defects.

3. Stranded conductor

The conductors shall be concentrically stranded uniformly and closely, the composition of which are exhibited at the Table 1.

The direction of lay shall be reversed in successive layers and right-hand (Z) lay in the outermost layer.

4. Test and Properties


The test and properties of the conductor shall be carried out in accordance with TIS 85-2548.

5. Packing

The conductor shall be placed on the non-returnable wooden reels.

The reel shall be covered with suitable covering to provide the conductors with physical protection during transportation and during ordinary storage and handling operations.

Each reel shall be clearly marked as follows.

1. Designation "AAC"
2. Size of conductor
3. Conductor length
4. Net and gross weight
5. Manufacturer's name and/or trade mark "  **YAZAKI** "
6. Rolling direction of reel

Test and Inspection

Sample Tests

- Maximum conductor resistance, Ohm/kmspecified in Table 1
- Construction.....specified in Table 1
- Breaking Strength, kg.....specified in Table 1

Definition concerning the tests

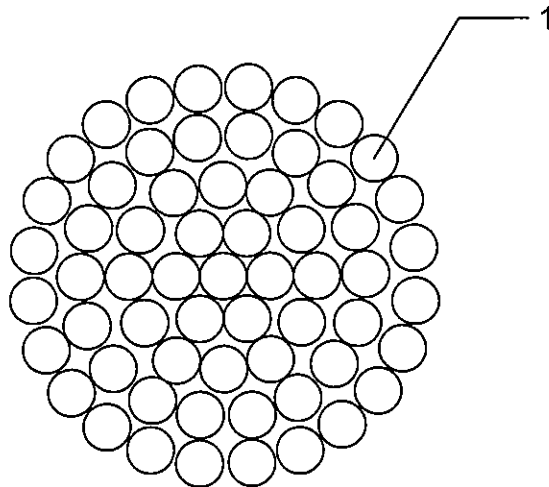
Routine tests: Tests made by the manufacturer on each manufactured length of cable to check that each length meets the specified requirements.

Sample tests: Tests made by the manufacturer on samples of completed cable or components taken from a completed cable, at a specified frequency, so as to verify that the finished product meets the specified requirements.

Type tests: Tests made before supplying, on a general commercial basis, a type of cable covered by this standard, in order to demonstrate satisfactory performance characteristics to meet the intended application.

Cable structure

Cross-sectional (Not scale)



No.	Structure	Material
1	Conductor	Hard drawn aluminium conductor

Application: For overhead transmission and distribution line

Table 1

Nominal size (mm ²)	Conductor strands (No./mm)	Conductor diameter approx. (mm)	Conductor resistance at 20°C maximum (Ohm/km)	Breaking strength of conductor (kg)	Weight approx. (kg/km)	Standard length (m)
10	7/1.35	4.05	2.8633	199	27	3000
16	7/1.71	5.12	1.7896	310	44	3000
25	7/2.13	6.40	1.1453	459	70	3000
35	7/2.52	7.56	0.8200	585	100	3000
40	7/2.70	8.09	0.7185	694	110	3000
50	7/3.02	9.06	0.5710	805	140	2500
50	19/1.83	9.15	0.5757	890	140	2500
63	7/3.39	10.20	0.4545	1060	170	2500
70	19/2.15	10.75	0.4171	1205	190	2500
95	19/2.52	12.60	0.3036	1585	260	2500
100	19/2.59	12.90	0.2877	1733	270	2000
120	19/2.85	14.25	0.2373	1980	330	2000
125	19/2.89	14.50	0.2302	2167	340	2000
150	37/2.25	15.75	0.1960	2570	400	2000
160	19/3.27	16.40	0.1798	2692	440	2000
185	37/2.52	17.64	0.1562	3085	500	2000
200	19/3.66	18.30	0.1439	3262	550	2000
240	61/2.25	20.25	0.1191	4015	650	1500
250	19/4.09	20.50	0.1151	4078	700	1500
300	61/2.52	22.68	0.0950	4820	850	1500
315	37/3.29	23.00	0.0916	5298	850	1500
400	37/3.71	26.00	0.0721	6524	1100	1000
400	61/2.85	25.65	0.0743	6025	1100	1000
450	37/3.94	27.50	0.0641	3740	1200	1000
500	37/4.15	29.00	0.0577	8155	1400	1000
500	61/3.25	29.25	0.0571	7695	1400	1000

Table 1 (continued)

Nominal size (mm ²)	Conductor strands (No./mm)	Conductor diameter approx. (mm)	Conductor resistance at 20°C maximum (Ohm/km)	Breaking strength of conductor (kg)	Weight approx. (kg/km)	Standard length (m)
560	37/4.39	30.70	0.0515	9134	1500	1000
625	91/2.96	32.56	0.0462	9694	1700	500
630	61/3.63	32.60	0.0458	10276	1700	500
710	61/3.85	34.60	0.0407	11580	2000	500
800	61/4.09	36.80	0.0361	13048	2200	500
800	91/3.35	36.85	0.0361	12055	2200	500
900	61/4.33	39.00	0.0321	14679	2500	500
1000	61/4.57	41.10	0.0289	16310	2800	500
1000	91/3.74	41.14	0.0290	14845	2800	500
1120	91/3.96	43.50	0.0258	18267	3100	500
1250	91/4.18	46.00	0.0231	20388	3500	500
1400	91/4.43	48.70	0.0207	22834	3900	500
1500	91/4.58	50.40	0.0193	24465	4200	500