Application

AS 1531 Standard AAC, also known as ASC conductor, finds primary application in overhead power transmission and distribution systems. It plays a crucial role in transporting electricity from power generation facilities to substations and, ultimately, to consumers. The conductor's high electrical conductivity, strength, and resistance to weathering and corrosion make it an ideal choice for this application.
Additionally, AS 1531 Standard AAC is well-suited for transporting renewable energy from remote locations to population centers, such as wind and solar power installations. These systems often require long-distance power transmission, and the conductor's high electrical conductivity and low energy loss contribute to efficient energy transfer over extended distances.

Advantages

High Electrical Conductivity: Aluminum's excellent conductivity combined with AAC's design results in low resistance to current flow. Allows for efficient transmission of large electricity amounts over long distances. Helps keep energy costs low for consumers.
High Tensile Strength: AAC's specific design ensures optimal strength and resistance to sagging.
Crucial for preventing power outages and system failures in overhead transmission systems.

Construction

AS 1531 Standard AAC is composed of a series of stranded aluminum wires. Its design enables it to carry high electrical currents with minimal energy loss, making it an ideal choice for long-distance power transmission lines.

Specifications

-AS/NZS 1531 Standard All Aluminum Conductor AAC (ASC Conductor)

Eastful Cable Lab

We have CNAS Accredited Facility to assure conformity assessment services with a focus on quality, expertise, and customer satisfaction.
CNAS has international mutual recognition among IAF, ILAC, APLAC and PAC.

Accreditation

We meet the requirements of ISO9001, ISO14001, ISO45001 and ISO50001 and our cables have certificate of CCC, RoHS, CASC, UL, cUL, TUV Rhineland and CCS.

National Green Factory

Our facility has been awarded of National Green Factory by Ministry of Industry and Information Technology of China.
We are committed to the development of high-end, intelligent and green manufacturing industry.

*The overall energy consumption level of green factories is better than the energy efficiency benchmark level.

Technical Parameters

Code Name	No./Dia.of Stranding Wires	Nominal Overall Diameter	Cross Section area	Nominal Linear Mass	Breaking load	Modulus of Elasticity	Coefficient of Linear Expansion
-	-	mm	mm^2	kg/km	kN	GPa	$\times10^{-6}$/°C
Leo	7/2.50	7.50	34.4	94.3	5.71	65	23.0
Leonids	7/2.75	8.25	41.6	113	6.72	65	23.0
Libra	7/3.00	9.00	49.5	135	7.98	65	23.0
Mars	7/3.75	11.3	77.3	211	11.8	65	23.0
Mercury	7/4.50	13.5	111	304	16.9	65	23.0
Moon	7/4.75	14.3	124	339	18.9	65	23.0
Neptune	19/3.25	16.3	158	433	24.7	65	23.0
Orion	19/3.50	17.5	183	503	28.7	65	23.0
Pluto	19/3.75	18.8	210	576	31.9	65	23.0
Saturn	37/3.00	21.0	262	721	42.2	65	23.0
Sirius	37/3.25	22.8	307	845	48.2	65	23.0
Taurus	19/4.75	23.8	337	924	51.3	65	23.0
Triton	37/3.75	26.3	409	1120	62.2	65	23.0
Uranus	61/3.25	29.3	506	1400	75.2	65	23.0
Ursula	61/3.50	31.5	587	1620	87.3	65	23.0
Venus	61/3.75	33.8	673	1860	97.2	65	23.0

Code Name	D.C.Resistance. at 20°C	A.C.Resistance. at 50Hz at 75°C	Inductive reactance to 0.3m at 50Hz
-	Ω/km	Ω/km	Ω/km
Leo	0.833	1.02	0.295
Leonids	0.689	0.842	0.289
Libra	0.579	0.707	0.284
Mars	0.370	0.452	0.270
Mercury	0.258	0.315	0.259
Moon	0.232	0.284	0.255
Neptune	0.183	0.224	0.244
Orion	0.157	0.192	0.240
Pluto	0.137	0.168	0.235
Saturn	0.110	0.135	0.227
Sirius	0.0940	0.116	0.222
Taurus	0.0857	0.105	0.220
Triton	0.0706	0.0872	0.213
Uranus	0.0572	0.0710	0.206
Ursula	0.0493	0.0616	0.201
Venus	0.0429	0.0539	0.197

Technical Parameters

Code Name	Continuous current carrying capacity (A)											
	Rural Weather						Industrial Weather					
	at night in winter			at noon in summer			at night in winter			at noon in summer		
-	in air	wind	wind	in air	wind	wind	in air	wind	wind	in air	wind	wind
Leo	123	211	245	95	190	225	132	216	250	88	186	222
Leonids	140	237	276	107	213	253	150	243	282	99	209	249
Libra	157	265	308	119	237	281	169	272	314	110	232	277
Mars	211	350	408	157	311	369	228	361	417	143	304	364
Mercury	269	440	511	196	388	461	292	454	524	176	378	453
Moon	289	470	546	209	413	492	314	486	560	188	403	483
Neptune	343	548	636	243	479	570	373	568	653	216	465	559
Orion	381	603	699	269	525	625	416	626	719	238	510	612
Pluto	420	657	762	295	570	679	458	683	784	260	553	665
Saturn	490	755	875	341	651	776	536	786	901	299	630	759
Sirius	547	834	975	379	716	854	599	869	1006	331	692	834
Taurus	583	883	1039	402	756	902	639	921	1071	350	730	880
Triton	668	997	1190	457	849	1028	733	1042	1228	396	818	1002
Uranus	773	1137	1377	525	962	1188	850	1191	1422	52	925	1158
Ursula	856	1246	1524	578	1049	1314	942	1307	1574	495	1006	1280
Venus	941	1356	1674	631	1137	1442	1036	1424	1730	539	1089	1405

Note:
Current ratings are based on the following conditions:
- Conductor temperature rise above ambient of 40°C
- Ambient air temp. of 35°C for summer noon or 10°C for winter night
- Direct solar radiation intensity of 1000 W/m2 for summer noon or zero for winter night
- Diffuse solar radiation intensity of 100 W/m2 for summer noon or zero for winter night
- Ground reflectance of 0.2
- Emissivity of 0.5 for rural weathered conductor or 0.85 for industrial weathered conductor
- Solar absorption coefficient of 0.5 for rural weathered conductor or 0.85 for industrial weathered conductor.