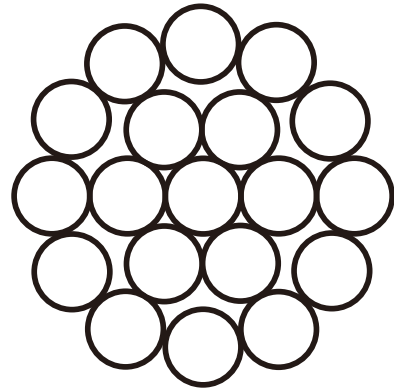


All Aluminium Alloy Conductors (AAAC/6201)



Properties:

Aluminium conductors manufactured to AS 1531

This type of conductors is stranded with 6201 aluminium alloy wires

Structural Parameters:

Code name	Number and diameter of wire	Overall diameter	Calculated area	Approx. mass of conductor	Rated strength, Min	DC resistance at 20°C	AC resistance at 50Hz, 75°C	Calculated elasticity modulus	Coefficient of linear expansion
-	No./mm	mm	mm ²	kg/km	kN	Ω/km	Ω/km	GPa	1/°C
Diamond	7/2.50	7.50	34.36	94.3	9.64	0.967	1.1585	65	23E-06
Dolomite	7/2.75	8.25	41.58	113	11.6	0.799	0.9572	65	23E-06
Emerald	7/3.00	9.00	49.48	135	13.9	0.671	0.8039	65	23E-06
Garnet	7/3.75	11.3	77.28	211	21.7	0.430	0.5153	65	23E-06
Jade	7/4.50	13.5	111.3	304	31.2	0.298	0.3573	65	23E-06
Jasper	7/4.75	14.3	124.0	339	34.8	0.268	0.3214	65	23E-06
Opal	19/3.25	16.3	157.6	433	44.2	0.212	0.2543	65	23E-06
Patronite	19/3.50	17.5	182.8	503	51.3	0.183	0.2196	65	23E-06
Pearl	19/3.75	18.8	209.8	576	58.8	0.159	0.1909	65	23E-06
Ruby	37/3.00	21.0	261.6	721	73.5	0.128	0.1539	64	23E-06
Ruthenium	37/3.25	22.8	307.0	845	86.1	0.109	0.1312	64	23E-06
Rutile	19/4.75	23.8	336.7	924	94.4	0.0991	0.1194	65	23E-06
Sapphire	37/3.75	26.3	408.5	1120	115	0.0819	0.0989	64	23E-06
Spinel	61/3.25	29.3	506.1	1400	135	0.0662	0.0803	64	23E-06
Tantalum	61/3.50	31.5	586.9	1620	156	0.0572	0.0697	64	23E-06
Topaz	61/3.75	33.8	673.4	1860	179	0.0498	0.0610	64	23E-06

Current Ratings:

Code name	*Current carrying capacity, A							
	35°C ambient temperature				40°C ambient temperature			
	50°C operation temperature	60°C operation temperature	70°C operation temperature	75°C operation temperature	50°C operation temperature	60°C operation temperature	70°C operation temperature	75°C operation temperature
Diamond	104	140	166	177	77	122	152	164
Dolomite	117	157	187	200	86	137	171	185
Emerald	130	175	209	223	96	153	191	206
Garnet	170	232	277	296	123	201	253	274
Jade	212	292	349	373	152	252	318	345
Jasper	226	312	374	400	161	270	341	370
Opal	261	362	436	466	184	313	397	430
Patronite	285	397	478	512	199	342	435	472
Pearl	310	434	523	560	215	373	475	517
Ruby	353	497	600	643	241	427	545	593
Ruthenium	388	549	664	712	262	471	603	657
Rutile	410	582	705	756	275	499	640	697
Sapphire	459	655	795	854	303	561	722	787
Spinel	519	747	909	977	336	638	824	899
Tantalum	564	817	995	1070	360	696	902	985
Topaz	610	888	1085	1167	384	755	982	1074

*Note: Current carrying capacity is based to the following conditions

- Frequency: 50Hz
- Solar absorption coefficient: 0.5
- Emissivity: 0.5
- Wind speed: 1.0m/s
- Solar radiation: 1000W/m²
- Current carrying capacity values calculated as per IEC 61597