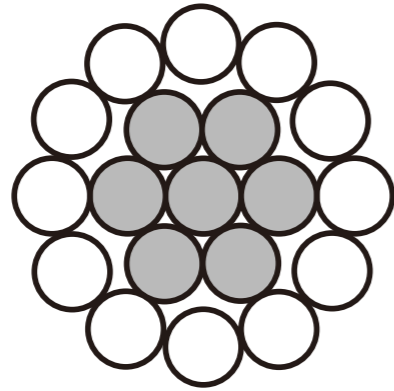


Aluminium Alloy Conductors, Galvanized Steel Reinforced (AACSR/GZ-1120)



Properties:

Aluminium conductors manufactured to AS 3607

The centre wire or wires are of galvanized steel and the outer layer or layers are of aluminium alloy 1120

Structural Parameters:

Code name	Structure		Overall diameter mm	Calculated area			Approx. mass of conductor kg/km	Rated strength, Min kN	DC resistance at 20°C Ω/km	AC resistance at 50Hz, 75°C Ω/km	Calculated elasticity modulus GPa	Coefficient of linear expansion 1/°C
	Alloy	ST		Alloy	ST	Total						
	No./mm	No./mm		mm ²	mm ²	mm ²						
Apple	6/3.00	1/3.00	9.0	42.41	7.07	49.48	171	18.3	0.700	0.8502	79	19.3E-06
Banana	6/3.75	1/3.75	11.3	66.27	11.04	77.31	268	27.9	0.448	0.5442	79	19.3E-06
Cherry	6/4.75	7/1.60	14.3	106.32	14.07	120.4	402	40.7	0.279	0.3391	76	19.9E-06
Pig	18/3.50	1/3.50	17.5	173.18	9.62	182.8	552	51.5	0.173	0.2105	69	21.4E-06
Grape	30/2.50	7/2.50	17.5	147.26	34.36	181.6	677	74.4	0.203	0.2467	82	18.4E-06
Lemon	30/3.00	7/3.00	21.0	212.06	49.48	261.5	973	107	0.141	0.1715	82	18.4E-06
Lychee	30/3.25	7/3.25	22.8	248.87	58.07	306.9	1140	126	0.120	0.1460	82	18.4E-06
Lime	30/3.50	7/3.50	24.5	288.63	67.35	356	1320	143	0.104	0.1266	82	18.4E-06
Mango	54/3.00	7/3.00	27.0	381.70	49.48	431.2	1440	149	0.0784	0.0957	75	19.9E-06
Orange	54/3.25	7/3.25	29.3	447.97	58.07	506.0	1690	174	0.0669	0.0819	75	19.9E-06
Olive	54/3.50	7/3.50	31.5	519.54	67.35	586.9	1960	197	0.0578	0.0709	75	19.9E-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
Apple	127	171	203	217	93	149	186	201
Banana	166	226	270	288	120	196	246	267
Cherry	221	304	364	389	157	263	332	360
Pig	292	406	488	523	204	350	444	482
Grape	270	375	451	483	188	323	410	446
Lemon	335	471	568	609	229	405	517	562
Lychee	369	521	630	675	249	447	572	623
Lime	402	570	690	740	268	488	626	682
Mango	470	672	815	874	309	574	739	806
Orange	516	741	901	967	334	633	817	891
Olive	561	811	988	1061	359	691	895	977

*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