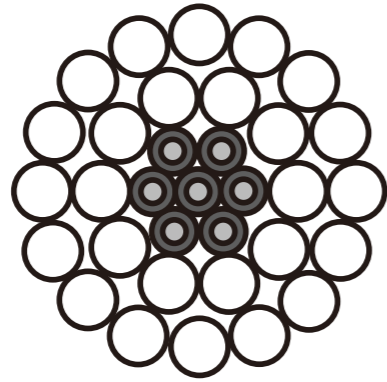


Aluminium Alloy Conductors, Aluminium-clad Steel Reinforced (AACSR/AC-6201)



Properties:

Aluminium conductors manufactured to AS 3607

The centre wire or wires are of aluminium-clad steel and the outer layer or layers are of aluminium alloy 6201

Structural Parameters:

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 No./mm	ACS No./mm		Alloy mm ²	ACS mm ²	Total mm ²						
6/3.00	1/3.00	9.0	42.41	7.07	49.48	163	20.3	0.737	0.8829	79	20.1E-06
6/3.75	1/3.75	11.3	66.27	11.04	77.31	254	31.1	0.472	0.5655	79	20.1E-06
6/4.75	7/1.60	14.3	106.32	14.07	120.4	385	46.8	0.298	0.3572	76	20.6E-06
18/3.50	1/3.50	17.5	173.18	9.62	182.8	540	60.8	0.189	0.2267	69	21.8E-06
30/3.00	7/3.00	21.0	212.06	49.48	261.5	913	118	0.145	0.1739	82	19.4E-06
30/3.50	7/3.50	24.5	288.63	67.35	356	1240	158	0.106	0.1293	82	19.4E-06

Current Ratings:

Structure		*Current carrying capacity, A							
Alloy No./mm	ACS No./mm	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
6/3.00	1/3.00	124	167	199	213	91	146	182	197
6/3.75	1/3.75	162	222	265	283	118	192	241	261
6/4.75	7/1.60	215	296	355	379	153	256	323	351
18/3.50	1/3.50	281	391	470	503	196	337	428	465
30/3.00	7/3.00	332	467	564	605	227	401	513	558
30/3.50	7/3.50	400	568	688	738	267	486	624	680

*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