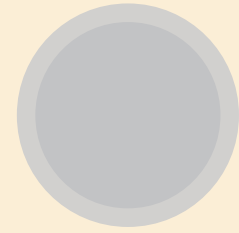


Aluminum alloy wire

RoHS

CROSS SECTION



APPLICATION

Commsun aluminium alloy wire is the main element of aluminum, and then mixed with a small amount of magnesium and other metal material to enhance its tensile strength, suitable for cable outer conductor, telephone lines, electronic wire, computer printing line, network cable, USB cable and other data, audio and video line, automobile, electrical and mechanical special cable inner conductor wiring conductor materials.

SPECIAL FEATURES

also available in other composition aluminum wire and aluminum clad steel wire.

MATERIALS COMPOSITION (% WEIGHT)

Si	Fe	Cu	Mn	Mg	Cr	Zn	V	Ti	Bi	Ga	Pb	Zr	Limits*		Al
													Each	Total	
0.25	0.40	0.10	0.10	3.10-3.90	0.15-0.35	0.20	--	0.20	--	--	--	--	0.05	0.15	remainder

*This column lists the limits that apply to all elements, whether a table column exists for them or not, for which no other limits are specified.

COMPARISON TYPICAL PHYSICAL PROPERTIES

Product Description	Density g/cm ³	DC Conductivity %IACS 20°C (68°F)	Resistivity Ohm*mm ² /m	Copper Volume	Copper weight	Tensile Strength (N/mm ²)
AL wire	2.78	36	0.0479	0	0	200-380

CommSun have two kinds of metal wire according to processing technology, annealed flexible wire and hard drawn wire without annealing, annealed flexible wire have more nice elongation than hard drawn wire, but loss of the tensile strength, annealed aluminum alloy wire can reach 220-230N/mm², hard drawn aluminum alloy wire can reach 340-350 N/mm²

TECHNICAL DATA

PHYSICAL AND ELECTRICAL PROPERTIES OF COMMSUN ALUMINUM WIRE

(METRIC UNITS)

Diameter mm	Diameter tolerance ±mm	Weight kg/km	Maximum DC resistance Ω/km	Min Elongation (%)		Min break load (kgf)	
				Annealed	Hard drawn (HS)	Annealed	Hard drawn (HS)
1.96	0.019	3.017	15.9	12	1.5	71	105
1.78	0.017	2.488	19.2	12	1.5	58	88
1.63	0.016	2.087	23.0	12	1.5	49	73
1.38	0.013	1.496	32.0	12	1.5	35	53
1.13	0.011	1.003	47.8	12	1.5	24	36
1.02	0.010	0.817	58.7	12	1.5	20	29
0.90	0.009	0.636	75.4	12	1.5	15	22
0.81	0.008	0.515	93.1	12	1.5	12	18
0.70	0.007	0.385	124	12	1.5	9.0	14
0.64	0.006	0.322	149	12	1.5	7.6	12
0.50	0.005	0.196	244	12	1.5	4.6	7.2
0.45	0.005	0.159	301	12	1.5	3.8	5.8
0.40	0.005	0.126	381	12	1.5	3.0	4.6
0.35	0.004	0.096	498	12	1.5	2.3	3.5
0.30	0.004	0.071	679	12	1.5	1.7	2.6
0.25	0.004	0.049	977	12	1.5	1.2	1.8
0.20	0.004	0.031	1527	10	1.0	0.76	1.2
0.19	0.003	0.028	1692	10	1.0	0.68	1.1
0.18	0.003	0.025	1886	10	1.0	0.60	0.96
0.17	0.003	0.023	2114	10	1.0	0.53	0.86
0.16	0.003	0.020	2387	10	1.0	0.47	0.77
0.15	0.003	0.018	2716	10	1.0	0.40	0.68
0.14	0.003	0.015	3118	8	1.0	0.35	0.60
0.13	0.003	0.013	3616	8	1.0	0.30	0.50
0.12	0.003	0.011	4244	8	1.0	0.25	0.43
0.11	0.003	0.010	5050	8	1.0	0.21	0.37
0.10	0.003	0.008	6111	8	1.0	0.18	0.30

For information and technical specifications on other wire gauges, please contact your Commsun representative, or our engineering support center