

### ACAR Conductor Application

Aluminum Conductor Alloy Reinforced (ACAR) conductor is an excellent conductor choice where current carrying capacity, higher strength and a lower conductor weight are critical to the line design.

### ACAR Cable Standard

IEC61089 , ASTM B-524

Aluminum Conductor Alloy Reinforced Construction

Concentrically stranded

Max. Size 3500MCM, Max. str. No. 91

### ACAR - Aluminum Conductor Alloy Reinforced Data Sheet

#### ACAR-ASTM B524

Cross Selection		Stranding- No. & Dia.				Approx. weight	Approx. Overall Dia.	Rated Strength	Max. DC Resistance at 20°C
		Al wire		AAAC Wire					
kcmil/ AWG	mm2	No.	mm	No.	mm	kg/km	mm	kN	Ω/km
250	126.64	12	2.91	7	2.913	349.3	14.58	27.58	0.23989
300	152.13	12	3.19	7	3.193	419.2	15.977	32.83	0.19964
350	177.29	12	3.45	7	3.447	489	17.247	37.41	0.17089
400	202.71	12	3.69	7	3.686	558.8	18.44	42.35	0.14941
450	228	12	3.91	7	3.909	628.6	19.558	47.15	0.133
500	253.16	30	2.95	7	2.951	698.5	20.65	48.04	0.11738
550	278.58	12	4.32	7	4.321	768.3	21.615	57.83	0.10891
600	304	12	4.51	7	4.514	838.1	22.581	62.72	0.09988
700	354.45	30	3.49	7	3.493	977.9	24.46	65.39	0.08385
700	354.45	18	3.49	19	3.493	977.9	24.46	79.62	0.08719
800	405.16	30	3.73	7	3.734	1117.6	26.137	73.84	0.0734
850	430.9	30	3.85	7	3.851	1187.4	26.949	77.4	0.06892
900	456.26	30	3.96	7	3.962	1257.3	27.737	81.85	0.06514

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		Al wire		AAAC Wire					
kcmil/ AWG	mm2	No.	mm	No.	mm	kg/km	mm	kN	Ω/km
950	481.16	30	4.07	7	4.069	1327.1	28.473	86.3	0.06168
1000	506.64	18	4.18	19	4.176	1396.9	29.235	112.1	0.06089
1100	557.22	30	4.38	7	4.379	1537.3	30.658	100.08	0.05326
1200	608.13	30	4.58	7	4.575	1677.2	32.029	108.98	0.04872
1250	633.35	30	4.67	7	4.669	1745.6	32.69	113.87	0.04685
1300	658.39	30	4.76	7	4.76	1815.6	33.325	118.32	0.04509
1500	759.93	42	3.98	19	3.983	2095.3	35.839	146.79	0.03966
1700	860.97	42	4.24	19	4.239	2375.1	38.151	166.36	0.03497
1750	887.1	42	4.3	19	4.303	2445.1	38.735	171.26	0.03398
1800	912.26	42	4.36	19	4.364	2515	39.268	176.15	0.03305
1900	962.84	42	4.48	19	4.483	2654.9	40.361	185.94	0.0313
2000	1013.74	42	4.6	19	4.6	2793.3	41.402	195.72	0.0297
2500	1265.8	72	4.21	19	4.209	3526.9	46.304	225.08	0.0233

2500	1265.8	54	4.21	37	4.209	3526.9	46.304	256.66	0.02387
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