

ALUMINUM TO COPPER COMPARISON CHART

BUILDING WIRE

Types THW and USE RHH-RHW

600 Volt - U.L. Approved - 75°C

Prices Shown Are For Comparison Use Only
And Are Not Necessarily Up To Date

Size - AWG or MCM		Current Carrying Capacity	Voltage Drop/100'	Conduit Size Required		THW		USE RHH-RHW	
Copper	Aluminum			3 Wire	4 Wire	Weight #/M'◆	List Price	Weight #/M'◆	List Price
8	6	45	.120	3/4"	1"	79	\$356.00	72	\$485.00
		50	.123		1 1/4	58	272.00	50	322.00
6	4	65	.079	1	1 1/4	117	448.00	107	588.00
		65	.078	1 1/4	1 1/2	72	364.00	66	404.00
4	2	85	.051	1 1/4	1 1/2	172	712.00	160	850.00
		90	.050	1 1/4	2	102	482.00	94	534.00
3	2*	100	.043	1 1/4	1 1/2	212	876.00	-	-
		100	.050	1 1/4	2	102	482.00	94	534.00
3	1	100	.043	1 1/4	1 1/2	212	876.00	-	-
		100	.040	1 1/2	2	140	708.00	128	756.00
2	1/0	115	.033	1 1/4	2	259	1068.00	243	1232.00
		120	.033	2	2	166	804.00	152	534.00
1	2/0	130	.027	1 1/2	2	333	1404.00	312	1525.00
		135	.026	2	2 1/2	200	946.00	184	756.00
1/0	2/0*	150	.022	2	2	410	1654.00	384	1778.00
		150	.026	2	2 1/2	200	946.00	184	860.00
1/0	3/0	150	.022	2	2	410	1654.00	384	1778.00
		155	.022	2	2 1/2	239	1138.00	223	1188.00
2/0	4/0	175	.018	2	2 1/2	505	2008.00	476	2144.00
		180	.018	2 1/2	3	289	1328.00	269	1392.00
3/0	4/0*	200	.015	2	2 1/2	620	2438.00	591	2626.00
		200	.018	2 1/2	3	289	1328.00	269	1392.00
3/0	250	200	.015	2	2 1/2	620	2438.00	591	2626.00
		205	.015	2 1/2	3	352	1576.00	343	1746.00
4/0	300	230	.012	2 1/2	3	768	3016.00	733	3190.00
		230	.013	2 1/2	3	408	2072.00	382	2296.00
250	350	255	.011	2 1/2	3	908	3588.00	873	4306.00
		250	.012	3	3 1/2	465	2224.00	437	2448.00
250	400	255	.011	2 1/2	3	908	3588.00	873	4306.00
		270	.011	3	3 1/2	518	2430.00	488	2660.00
300	500	285	.0095	2 1/2	3	1091	4602.00	1040	4984.00
		310	.0089	3	3 1/2	626	2850.00	593	3116.00
350	500	310	.0085	3	3 1/2	1255	4910.00	1190	5798.00
		310	.0089	3	3 1/2	626	2850.00	593	3116.00
400	600	335	.0076	3	3 1/2	1422	6050.00	1360	6390.00
		340	.0079	3 1/2	4	765	3426.00	723	3740.00
500	700	380	.0068	3	3 1/2	1761	6850.00	1681	7766.00
		375	.0071	3 1/2	5	875	3996.00	830	4368.00
500	750	380	.0068	3	3 1/2	1761	6850.00	1681	7766.00
		385	.0068	3 1/2	5	926	4184.00	880	4570.00
500	700	380	.0068	3	3 1/2	1761	6850.00	1681	7766.00
		375	.0071	3 1/2	4*	875	3996.00	830	4368.00

- * - For three-wire, single phase service and sub-service circuits, the allowable current-carrying capacity of RH, RH-RW, RHH, RHW and THW aluminum conductors shall be for Size #2-100 amps., #1-110 amps., #1/0-125 amps., #2/0-150 amps., #3/0-170 amps., and #4/0-200 amps.
- 4 x 700 MCM exceeds NEC 40% allowable conduit fill for 4" by only 0.252" as they occupy less than 42% of the 4" conduit area.
- † - Voltage-drop at 90% Power Factor for 3 phase in non-magnetic conduit.
- ◆ - Single-Conductor.