ULTRA HS™ STEEL

ALCAN

HiTempEC

ACSS and ACSS-TW Conductors

Now with Ultra High Strength Steel as specified in ASTM B958

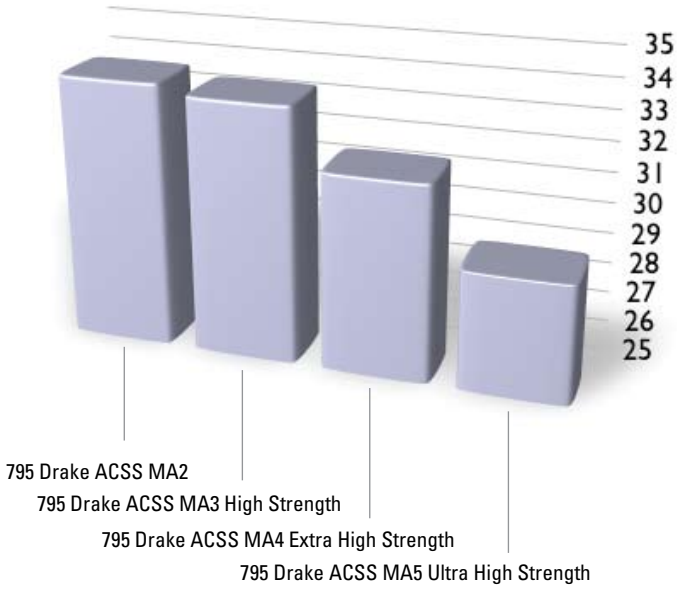
The high temperature low sag solution

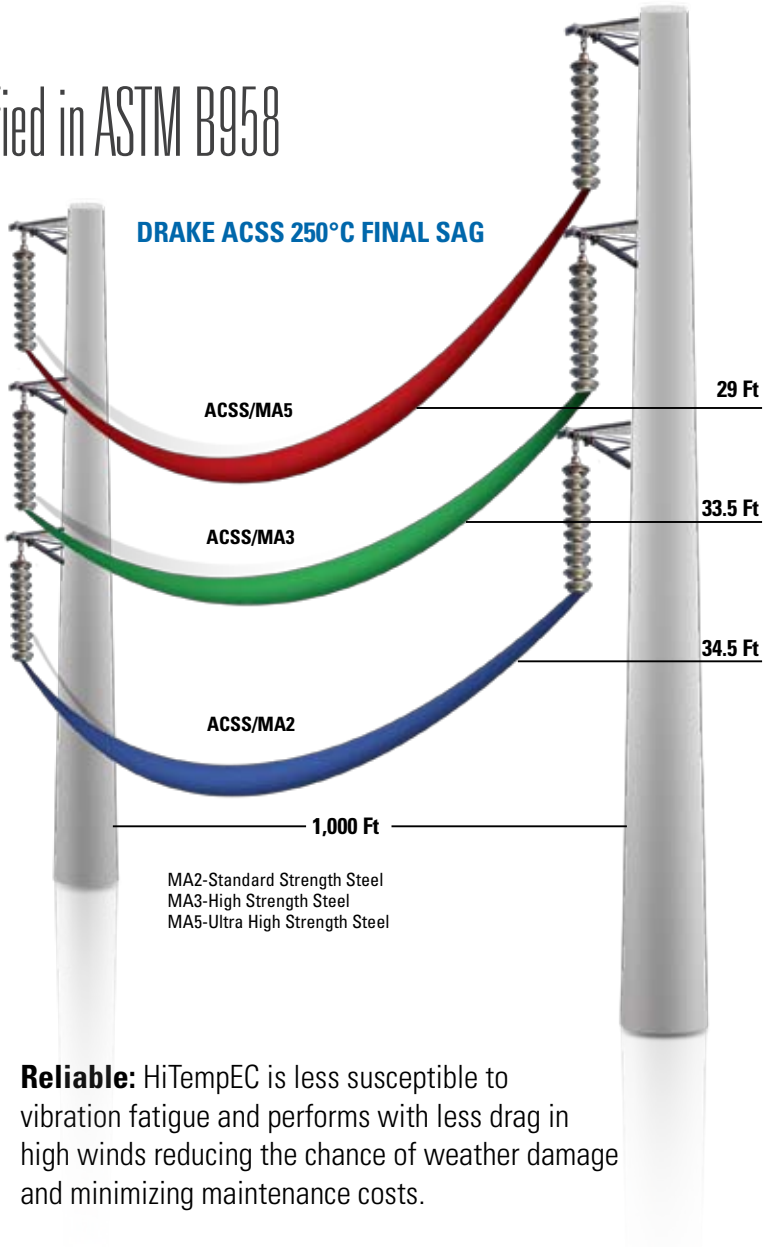
Compared to traditional transmission conductors, HiTempEC provides superior performance and significant savings over the life of your transmission project.

Economical: HiTempEC operates continuously at high temperatures up to 250°C, with proper steel coating, ensuring maximum utilization and performance; Alcan Cable's standard coating for high temperature operation is a Zn-5% Al Mischmetal coating so that customers can take full advantage of the 250°C continuous operating temperature rating. Galvanized coatings are rated only 180°C for continuous operation.

Powerful: HiTempEC carries up to 50% more current and allows for lower transmission tower height due to reduced sag.

250°C Final Sag 1000ft Ruling Span





Reliable: HiTempEC is less susceptible to vibration fatigue and performs with less drag in high winds reducing the chance of weather damage and minimizing maintenance costs.

Today, building a transmission line represents a significant investment that requires overcoming many major obstacles. Doesn't it make sense to maximize the return on your investment by selecting HiTempEC? The optimization of the line depends upon the proven performance of a premium cable.

HiTempEC is available with Standard, High, Extra or ULTRA HS™.

Economical, Powerful and Reliable...choose HiTempEC for your next transmission project.

ACSS/TW Rated Strengths—Equal Area

Code Word	Size & Stranding		Type	Rated Strength		
	kcmil	Stranding		Standard Strength ACSS/TW/MA2 lbs.	High Strength ACSS/TW/MA3 lbs.	Ultra High Strength ACSS/TW/MA5 lbs.
Flicker/ACSS/TW	477	18/7	13	13,000	14,200	16,400
Hawk/ACSS/TW	477	18/7	16	15,600	17,100	19,800
Parakeet/ACSS/TW	556.5	18/7	13	15,200	16,600	19,100
Dove/ACSS/TW	556.5	20/7	16	18,200	19,900	23,100
Rook/ACSS/TW	636	18/7	13	17,300	19,000	21,900
Grosbeak/ACSS/TW	636	20/7	16	20,700	22,400	26,000
Tern/ACSS/TW	795	17/7	7	14,200	15,200	17,400
Puffin/ACSS/TW	795	18/7	10	18,900	20,600	23,700
Condor/ACSS/TW	795	20/7	13	21,700	23,300	26,900
Drake/ACSS/TW	795	20/7	16	25,900	28,000	32,600
Phoenix/ACSS/TW	954	30/7	5	14,200	15,200	17,100
Rail/ACSS/TW	954	32/7	7	16,700	18,000	20,400
Cardinal/ACSS/TW	954	20/7	13	26,000	28,000	32,300
Snowbird/ACSS/TW	1033.5	30/7	5	15,400	16,400	18,500
Ortolan/ACSS/TW	1033.5	32/7	7	18,100	19,500	22,000
Curlew/ACSS/TW	1033.5	21/7	13	28,200	30,300	35,000
Avocet/ACSS/TW	1113	30/7	5	16,300	17,500	19,500
Bluejay/ACSS/TW	1113	33/7	7	19,500	21,000	23,800
Finch/ACSS/TW	1113	38/19	13	30,400	33,200	38,700
Oxbird/ACSS/TW	1192.5	30/7	5	17,500	18,700	20,900
Bunting/ACSS/TW	1192.5	33/7	7	20,900	22,500	25,400
Grackle/ACSS/TW	1192.5	38/19	13	32,600	35,500	41,500
Scissortail/ACSS/TW	1272	30/7	5	18,700	20,000	22,300
Bittern/ACSS/TW	1272	35/7	7	22,300	24,000	27,100
Pheasant/ACSS/TW	1272	39/19	13	34,100	37,300	43,000
Dipper/ACSS/TW	1351.5	35/7	7	23,700	25,500	28,800
Martin/ACSS/TW	1351.5	39/19	13	36,200	39,600	45,600
Bobolink/ACSS/TW	1431	36/7	7	25,100	27,000	30,500
Plover/ACSS/TW	1431	39/19	13	38,400	41,900	48,300
Lapwing/ACSS/TW	1590	36/7	7	27,900	29,600	33,500
Falcon/ACSS/TW	1590	42/19	13	42,600	46,600	53,700
Chukar/ACSS/TW	1780	37/19	8	35,300	38,200	43,900
Bluebird/ACSS/TW	2156	64/19	8	42,100	45,500	51,700

Notes:
ACSS/TW conductors manufactured in accordance with ASTM B 857.
Rated Strengths for conductors with standard strength steel based on Class A Zinc-5% Aluminum-Mischmetal alloy coated steel core wire in accordance with ASTM B 802.

Rated Strengths for conductors with high strength steel based on Class A Zinc-5% Aluminum-Mischmetal alloy coated steel core wire in accordance with ASTM B 803.

Rated Strengths for conductors with ultra high strength steel based on Class A Zinc-5% Aluminum-Mischmetal alloy coated steel core wire in accordance with ASTM B 958.

The final design of a trapezoidal shaped wire compact conductor is contingent on several factors such as layer diameter, wire width and thickness, etc. Therefore, the actual design of a given conductor may vary between manufacturers. This may result in a slight variation in the number and dimensions of the individual wires from that listed in the table.

ACSS/TW Rated Strengths—Equal Diameter

Code Word	Size & Stranding		Type	Rated Strength		
	kcmil	Stranding		Standard Strength ACSS/TW/MA2 lbs.	High Strength ACSS/TW/MA3 lbs.	Ultra High Strength ACSS/TW/MA5 lbs.
Mohawk/ACSS/TW	571.7	18/7	13	15,600	17,100	19,700
Calumet/ACSS/TW	565.3	20/7	16	18,400	20,200	23,500
Mystic/ACSS/TW	666.6	20/7	13	18,200	19,900	22,900
Oswego/ACSS/TW	664.8	20/7	16	21,700	23,400	27,200
Maumee/ACSS/TW	768.2	20/7	13	21,000	23,000	26,500
Wabash/ACSS/TW	762.8	20/7	16	24,900	26,800	31,200
Kettle/ACSS/TW	957.2	32/7	7	16,800	18,100	20,400
Fraser/ACSS/TW	946.7	35/7	10	21,100	22,900	26,200
Columbia/ACSS/TW	966.2	21/7	13	26,400	28,300	32,800
Suwannee/ACSS/TW	959.6	22/7	16	30,700	33,100	38,600
Cheyenne/ACSS/TW	1168.1	30/7	5	17,200	18,300	20,500
Genesee/ACSS/TW	1158	33/7	7	20,500	22,100	25,000
Hudson/ACSS/TW	1158.4	25/7	13	31,100	33,500	38,800
Catawba/ACSS/TW	1272	30/7	5	18,700	20,000	22,300
Nelson/ACSS/TW	1257.1	35/7	7	22,100	23,800	26,900
Yukon/ACSS/TW	1233.6	38/19	13	33,200	36,300	41,900
Truckee/ACSS/TW	1372.5	30/7	5	20,200	21,500	24,000
Mackenzie/ACSS/TW	1359.7	36/7	7	23,900	25,700	29,000
Thames/ACSS/TW	1334.6	39/19	13	35,800	39,100	45,100
St. Croix/ACSS/TW	1467.8	33/7	5	21,600	23,100	25,800
Miramichi/ACSS/TW	1455.3	36/7	7	25,600	27,100	30,700
Merrimack/ACSS/TW	1433.6	39/19	13	38,400	42,000	48,400
Platte/ACSS/TW	1569	33/7	5	23,100	24,600	27,500
Potomac/ACSS/TW	1557.4	36/7	7	27,300	29,000	32,800
Rio Grande/ACSS/TW	1533.3	39/19	13	41,200	45,000	51,900
Schuylkill/ACSS/TW	1657.4	36/7	7	29,100	30,900	34,900
Pecos/ACSS/TW	1622	39/19	13	45,000	49,300	56,900
Pee Dee/ACSS/TW	1758.6	37/7	7	30,900	32,800	37,100
James/ACSS/TW	1730.6	39/19	13	46,400	50,800	58,500
Athabaska/ACSS/TW	1949.6	42/7	7	34,300	36,500	41,300
Cumberland/ACSS/TW	1926.9	42/19	13	51,600	56,400	65,000
Powder/ACSS/TW	2153.8	64/19	8	42,100	45,500	51,700
Santee/ACSS/TW	2627.3	64/19	8	51,300	55,600	63,100

Notes:
ACSS/TW conductors manufactured in accordance with ASTM B 857.
Rated Strengths for conductors with standard strength steel based on Class A Zinc-5% Aluminum-Mischmetal alloy coated steel core wire in accordance with ASTM B 802.

Rated Strengths for conductors with high strength steel based on Class A Zinc-5% Aluminum-Mischmetal alloy coated steel core wire in accordance with ASTM B 803.

Rated Strengths for conductors with ultra high strength steel based on Class A Zinc-5% Aluminum-Mischmetal alloy coated steel core wire in accordance with ASTM B 958.

The final design of a trapezoidal shaped wire compact conductor is contingent on several factors such as layer diameter, wire width and thickness, etc. Therefore, the actual design of a given conductor may vary between manufacturers. This may result in a slight variation in the number and dimensions of the individual wires from that listed in the table.

ACSS Rated Strengths—Round Wire

Code Word	Size kcmil	Stranding, Number & Diameter		Standard Strength ACSS/MA2 lbs.	High Strength ACSS/MA3 lbs.	Ultra High Strength ACSS/MA5 lbs.
		Aluminum	Steel			
Partridge/ACSS	266.8	26 x 0.1013	7 x 0.0788	8,880	9,730	11,400
Linnet/ACSS	336.4	26 x 0.1137	7 x 0.0884	11,200	12,300	14,400
Oriole/ACSS	336.4	30 x 0.1059	7 x 0.1059	14,800	16,300	19,100
Ibis/ACSS	397.5	26 x 0.1236	7 x 0.0961	13,000	14,200	16,500
Lark/ACSS	397.5	30 x 0.1151	7 x 0.1151	17,500	19,300	22,600
Flicker/ACSS	477	24 x 0.1410	7 x 0.0940	13,000	14,200	16,400
Hawk/ACSS	477	26 x 0.1354	7 x 0.1053	15,600	17,100	19,800
Hen/ACSS	477	30 x 0.1261	7 x 0.1261	21,000	22,700	26,700
Parakeet/ACSS	556.5	24 x 0.1523	7 x 0.1015	15,200	16,600	19,200
Dove/ACSS	556.5	26 x 0.1463	7 x 0.1138	18,200	19,900	23,100
Eagle/ACSS	556.5	30 x 0.1362	7 x 0.1362	24,500	26,500	31,100
Peacock/ACSS	605	24 x 0.1588	7 x 0.1059	16,500	18,100	20,800
Rook/ACSS	636	24 x 0.1628	7 x 0.1085	17,300	19,000	21,900
Grosbeak/ACSS	636	26 x 0.1564	7 x 0.1216	20,700	22,400	26,000
Egret/ACSS	636	30 x 0.1456	19 x 0.0874	28,000	30,900	36,600
Flamingo/ACSS	666.6	24 x 0.1667	7 x 0.1111	18,200	19,900	22,900
Starling/ACSS	715.5	26 x 0.1659	7 x 0.1290	23,300	25,200	29,300
Redwing/ACSS	715.5	30 x 0.1544	19 x 0.0926	30,800	34,000	39,800
Tern/ACSS	795	45 x 0.1329	7 x 0.0886	14,200	15,200	17,400
Cuckoo/ACSS	795	24 x 0.1820	7 x 0.1213	21,700	23,300	26,900
Condor/ACSS	795	54 x 0.1213	7 x 0.1213	21,700	23,300	26,900
Drake/ACSS	795	26 x 0.1749	7 x 0.1360	25,900	28,000	32,600
Mallard/ACSS	795	30 x 0.1628	19 x 0.0977	34,300	37,900	44,300
Ruddy/ACSS	900	45 x 0.1414	7 x 0.0943	15,800	17,000	19,200
Canary/ACSS	900	54 x 0.1291	7 x 0.1291	24,600	26,400	30,500
Rail/ACSS	954	45 x 0.1456	7 x 0.0971	16,700	18,000	20,400
Cardinal/ACSS	954	54 x 0.1329	7 x 0.1329	26,000	28,000	32,300
Ortolan/ACSS	1033.5	45 x 0.1515	7 x 0.1010	18,100	19,500	22,000
Curlew/ACSS	1033.5	54 x 0.1383	7 x 0.1383	28,200	30,300	35,000
Bluejay/ACSS	1113	45 x 0.1573	7 x 0.1049	19,500	21,100	23,800
Finch/ACSS	1113	54 x 0.1436	19 x 0.0862	30,400	33,200	38,700
Bunting/ACSS	1192.5	45 x 0.1628	7 x 0.1085	20,900	22,500	25,400
Grackle/ACSS	1192.5	54 x 0.1486	19 x 0.0892	32,600	35,500	41,500
Bittern/ACSS	1272	45 x 0.1681	7 x 0.1121	22,300	24,000	27,200
Pheasant/ACSS	1272	54 x 0.1535	19 x 0.0921	34,100	37,300	43,000
Dipper/ACSS	1351.5	45 x 0.1733	7 x 0.1155	23,700	25,500	28,800
Martin/ACSS	1351.5	54 x 0.1582	19 x 0.0949	36,200	39,600	45,600
Bobolink/ACSS	1431	45 x 0.1783	7 x 0.1189	25,100	27,000	30,500
Plover/ACSS	1431	54 x 0.1628	19 x 0.0977	38,400	41,900	48,300
Lapwing/ACSS	1590	45 x 0.1880	7 x 0.1253	27,900	29,600	33,500
Falcon/ACSS	1590	54 x 0.1716	19 x 0.1030	42,600	46,600	53,700
Chukar/ACSS	1780	84 x 0.1456	19 x 0.0874	35,400	38,200	43,900
Bluebird/ACSS	2156	84 x 0.1602	19 x 0.0961	42,100	45,500	51,700
Kiwi/ACSS	2167	72 x 0.1735	7 x 0.1157	29,000	30,800	34,100
Thrasher/ACSS	2312	76 x 0.1744	19 x 0.0814	35,600	38,100	43,000

Notes:
ACSS conductors manufactured in accordance with ASTM 856.
Rated Strengths for conductors with standard strength steel based on Class A Zinc-5% Aluminum-Mischmetal alloy coated steel core wire in accordance with ASTM B 802.

Rated Strengths for conductors with high strength steel based on Class A Zinc-5% Aluminum-Mischmetal alloy coated steel core wire in accordance with ASTM B 803.

Rated Strengths for conductors with ultra high strength steel based on Class A Zinc-5% Aluminum-Mischmetal alloy coated steel core wire in accordance with ASTM B 958.

Alcan Cable
A division of Alcan Products Corporation
Three Ravinia Drive, Suite 1600
Atlanta, GA 30346-2133
770-394-9886 fax 770-677-2609

For more information on Alcan Cable, go to www.cable.alcan.com or call (800) 347-0571.

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