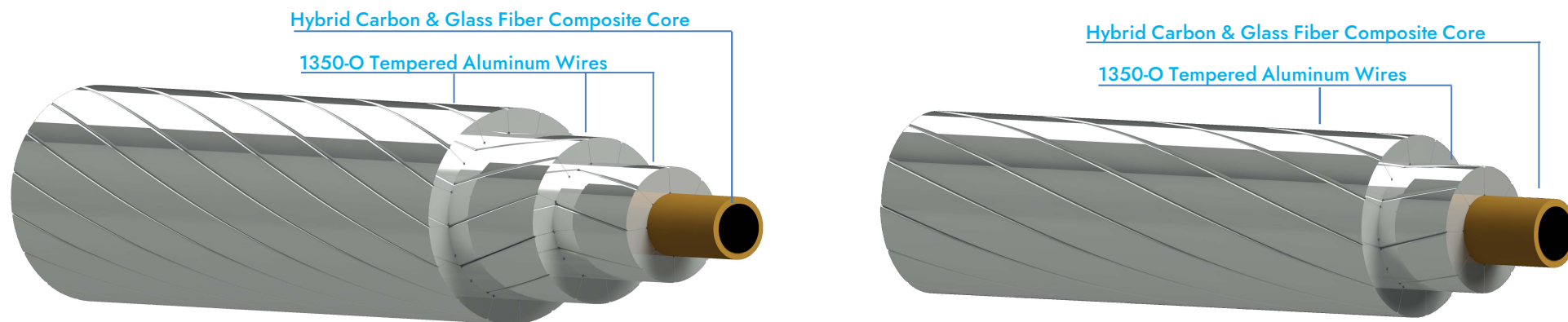


Aluminum Conductor Composite Core (ACCC[®])

Aluminum Conductor Composite Core Conductors : These are "High-temperature low-sag" (HTLS) Conductors with excellent electrical characteristics, excellent sag-tension characteristics and superior corrosion resistance to that of ACSR. As compared to ACSR they have lighter weight, comparable strength and current carrying capacity, lower electrical losses and superior corrosion resistance have given this conductor wide acceptance as a transmission conductor. It has found limited use, however, as a distribution conductor.

Construction

Fully annealed trapezoidal shaped aluminium wires concentrically stranded over hybrid carbon and glass fiber core (Composite Core)



Values based on following Specifications:

- 1350-O tempered aluminum wires as per ASTM B 609 or EN 50540
- Hybrid carbon and glass fiber core (Composite Core) according to ASTM B987
- ACCC[®] Conductors are required to exhibit lay lengths (ratios) that conform to ASTM B 857 or EN 50540.

Features:

- Can be operated up to 180°C
- Lowest sag among the HTLS category due to lowest coefficient of thermal expansion and higher strength to weight ratio.
- Highest Conductivity Conductor.

Available with Non-Specular (Dull) Surface Finish and Color Coated as per customized requirements.

ACCC® (Aluminum Conductor Composite Core)

Conductor Name	Cross-Sectional Area			Diameter		Weight			Rated Strength		DC Resistance @ 20°C	Current Capacity		
	AL	Core	Total	Conductor	Core	Aluminum	Core	Total	Core	Conductor		@ 85°C	@ 120°C	@ 180°C
	(mm ²)	(mm ²)	(mm ²)	(mm)	(mm)	(Kg/Km)	(Kg/Km)	(Kg/Km)	(KN)	(KN)		(Ω/Km)	(Ampere)	(Ampere)
US Customary Sizes														
OCEANSIDE	194.20	28.00	222.20	17.27	5.97	534.00	54.00	588.00	59.60	70.30	0.1441	439	633	841
LINNET	218.10	28.00	246.10	18.29	5.97	600.00	54.00	654.00	59.60	71.60	0.1277	472	683	908
ORIOLE	222.30	39.70	262.00	18.82	7.11	611.00	76.00	687.00	85.00	97.50	0.1255	479	694	924
WACO	230.10	47.10	277.20	19.56	7.75	637.00	86.00	723.00	101.00	113.90	0.1212	491	714	951
LAREDO	268.40	39.70	308.10	20.50	7.11	738.00	76.00	814.00	85.00	99.70	0.1038	536	780	1042
IRVING	308.80	60.30	369.10	22.40	8.76	852.00	113.00	965.00	129.00	146.30	0.0903	585	857	1147
HAWK	309.70	39.70	349.40	21.79	7.11	852.00	76.00	928.00	85.00	102.30	0.0900	582	852	1140
DOVE	361.50	47.10	408.60	23.55	7.75	999.00	86.00	1085.00	101.00	121.00	0.0771	639	939	1260
AMARILLO	397.60	71.30	468.90	25.14	9.53	1098.00	132.00	1230.00	151.70	173.90	0.0702	678	1001	1347
GROSBEAK	416.20	51.90	468.10	25.15	8.13	1146.00	98.00	1244.00	110.80	133.90	0.0672	693	1023	1376
LUBBOCK	458.00	60.30	518.30	26.42	8.76	1262.00	113.00	1375.00	129.00	154.40	0.0608	735	1089	1468
GALVESTON	512.40	60.30	572.70	27.69	8.76	1412.00	113.00	1525.00	129.00	157.50	0.0544	784	1165	1573
DRAKE	519.70	71.30	591.00	28.14	9.53	1434.00	132.00	1566.00	151.70	180.60	0.0536	792	1179	1593
CURLEW	523.40	87.30	610.70	28.96	10.54	1454.00	164.00	1618.00	185.90	215.30	0.0535	798	1190	1609
PLANO	536.80	60.30	597.10	28.63	8.76	1483.00	113.00	1596.00	129.00	158.80	0.0522	805	1200	1622
CORPUS CHRISTI	558.90	60.30	619.20	29.11	8.76	1543.00	113.00	1656.00	129.00	160.10	0.0501	824	1230	1663
ARLINGTON	583.20	71.30	654.50	29.90	9.53	1614.00	132.00	1746.00	151.70	184.20	0.0480	846	1265	1713
CARDINAL	619.10	60.30	679.40	30.43	8.76	1710.00	113.00	1823.00	129.00	163.70	0.0452	874	1308	1774
FORT WORTH	658.90	71.30	730.20	31.50	9.53	1821.00	132.00	1953.00	151.70	188.60	0.0425	906	1361	1848
EL PASO	684.00	60.30	744.30	31.80	8.76	1888.00	113.00	2001.00	129.00	167.30	0.0409	924	1390	1888
BEAUMONT	723.90	71.30	795.20	32.87	9.53	2005.00	132.00	2137.00	151.70	192.20	0.0387	956	1441	1960
SAN ANTONIO	747.30	71.30	818.60	33.40	9.78	2076.00	132.00	2208.00	160.10	201.90	0.0375	973	1469	2000
BITTERN	801.40	60.30	861.70	34.16	8.76	2217.00	113.00	2330.00	129.00	173.90	0.0352	1006	1522	2075
DALLAS	909.50	75.10	984.60	36.88	9.78	2525.00	143.00	2668.00	160.10	211.30	0.0309	1086	1654	2263
HOUSTON	976.60	87.30	1063.90	38.25	10.54	2713.00	164.00	2877.00	185.90	240.60	0.0285	1135	1736	2380
LAPWING	987.50	75.10	1062.60	38.20	9.78	2741.00	143.00	2884.00	160.10	215.30	0.0285	1134	1734	2378
FALCON	1036.20	87.30	1123.50	39.24	10.54	2878.00	164.00	3042.00	185.90	244.20	0.0271	1167	1789	2457
CHUKAR	1135.80	79.10	1214.90	40.74	10.03	3157.00	147.00	3304.00	169.50	233.10	0.0247	1224	1884	2595
BLUEBIRD	1388.70	87.30	1476.00	44.75	10.54	3857.00	164.00	4021.00	185.90	263.70	0.0203	1353	2107	2922

ACCC® (Aluminum Conductor Composite Core)

Conductor Name	Cross-Sectional Area			Diameter		Weight			Rated Strength		DC Resistance @ 20°C	Current Capacity		
	AL	Core	Total	Conductor	Core	Aluminum	Core	Total	Core	Conductor		@ 85°C	@ 120°C	@ 180°C
	(mm ²)	(mm ²)	(mm ²)	(mm)	(mm)	(Kg/Km)	(Kg/Km)	(Kg/Km)	(KN)	(KN)		(Ω/Km)	(Ampere)	(Ampere)
ACCC®														
International Sizes														
SILVASSA	122.70	28.00	150.70	14.35	5.97	338.00	54.00	392.00	59.60	66.50	0.2286	335	479	632
HELSINKI	150.60	28.00	178.60	15.65	5.97	415.00	54.00	469.00	59.60	68.10	0.1862	378	543	719
JAIPUR	155.70	47.10	202.80	16.51	7.75	436.00	86.00	522.00	101.00	109.80	0.1801	389	560	742
ZADAR	177.40	39.70	217.10	17.09	7.11	488.00	76.00	564.00	85.00	95.00	0.1576	419	604	802
ROVINJ	187.80	28.00	215.80	17.09	5.97	521.00	54.00	575.00	59.60	70.20	0.1487	431	622	825
COPENHAGEN	219.90	28.00	247.90	18.29	5.97	605.00	54.00	659.00	59.60	72.00	0.1272	473	684	910
REYKJAVIK	223.10	39.70	262.80	18.82	7.11	616.00	76.00	692.00	85.00	97.50	0.1256	479	694	924
MONTE CARLO	228.50	87.30	315.80	20.78	10.54	634.00	164.00	798.00	185.90	198.80	0.1230	494	720	962
GLASGOW	236.70	47.10	283.80	19.53	7.75	657.00	86.00	743.00	101.00	114.30	0.1184	497	722	962
GDANSK	248.80	28.00	276.80	19.20	5.97	687.00	54.00	741.00	59.60	73.60	0.1126	507	736	981
CASABLANCA	273.60	39.70	313.30	20.50	7.11	756.00	76.00	832.00	85.00	100.40	0.1024	539	786	1050
OSLO	313.80	60.30	374.10	22.40	8.76	868.00	113.00	981.00	129.00	146.70	0.0893	588	861	1154
LISBON	315.50	39.70	355.20	21.79	7.11	870.00	76.00	946.00	85.00	102.70	0.0887	587	858	1148
AMSTERDAM	367.40	47.10	414.50	23.55	7.75	1018.00	86.00	1104.00	101.00	121.70	0.0762	643	944	1267
25 MM	383.20	87.30	470.50	24.99	10.54	1058.00	164.00	1222.00	185.90	207.30	0.0730	665	981	1319
CORDOBA	399.40	47.10	446.50	24.41	7.75	1105.00	86.00	1191.00	101.00	123.50	0.0700	675	994	1336
LEIPZIG	406.40	71.30	477.70	25.15	9.53	1126.00	132.00	1258.00	151.70	174.60	0.0690	684	1010	1358
BRUSSELS	421.40	51.90	473.30	25.15	8.13	1166.00	98.00	1264.00	110.80	134.50	0.0666	696	1028	1382
STOCKHOLM 3L	453.70	60.30	514.00	26.39	8.76	1255.00	113.00	1368.00	129.00	154.50	0.0617	730	1081	1457
STOCKHOLM 2L	463.30	60.30	523.60	26.39	8.76	1282.00	113.00	1395.00	129.00	155.10	0.0605	737	1092	1471
WARSAW	507.50	60.30	567.80	27.71	8.76	1406.00	113.00	1519.00	129.00	157.60	0.0553	778	1156	1561
DUBLIN	524.50	71.30	595.80	28.14	9.53	1452.00	132.00	1584.00	151.70	181.20	0.0534	794	1181	1596
KOLKATA	543.50	71.30	614.80	28.63	9.53	1512.00	132.00	1644.00	151.70	182.30	0.0517	809	1206	1630
MAHAKAM	544.90	87.30	632.20	29.01	10.54	1505.00	164.00	1669.00	185.90	216.50	0.0514	814	1214	1642
HAMBURG	546.40	60.30	606.70	28.63	8.76	1514.00	113.00	1627.00	129.00	159.70	0.0514	811	1209	1634
MILAN	567.70	60.30	628.00	29.11	8.76	1573.00	113.00	1686.00	129.00	160.90	0.0494	830	1238	1675
ROME	592.50	71.30	663.80	29.90	9.53	1643.00	132.00	1775.00	151.70	185.00	0.0474	851	1273	1724
VIENNA	629.20	60.30	689.50	30.43	8.76	1739.00	113.00	1852.00	129.00	164.40	0.0445	880	1318	1787
BUDAPEST	668.30	71.30	739.60	31.50	9.53	1852.00	132.00	1984.00	151.70	189.30	0.0420	912	1369	1859
MUMBAI	685.40	71.30	756.70	31.78	9.53	1904.00	132.00	2036.00	151.70	190.30	0.0410	924	1388	1886

ACCC® (Aluminum Conductor Composite Core)

Conductor Name	Cross-Sectional Area			Diameter		Weight			Rated Strength		DC Resistance @ 20°C	Current Capacity		
	AL	Core	Total	Conductor	Core	Aluminum	Core	Total	Core	Conductor		@ 85°C	@ 120°C	@ 180°C
	(mm ²)	(mm ²)	(mm ²)	(mm)	(mm)	(Kg/Km)	(Kg/Km)	(Kg/Km)	(KN)	(KN)		(Ω/Km)	(Ampere)	(Ampere)
ACCC®	(mm ²)	(mm ²)	(mm ²)	(mm)	(mm)	(Kg/Km)	(Kg/Km)	(Kg/Km)	(KN)	(KN)	(Ω/Km)	(Ampere)	(Ampere)	(Ampere)
PRAGUE	690.70	60.30	751.00	31.78	8.76	1917.00	113.00	2030.00	129.00	167.90	0.0407	926	1393	1892
DHAKA	723.90	71.30	795.20	32.87	9.53	2005.00	132.00	2137.00	151.70	192.40	0.0387	956	1441	1960
MUNICH	733.20	71.30	804.50	32.84	9.53	2039.00	132.00	2171.00	151.70	192.90	0.0384	959	1446	1967
WARWICK	749.50	87.30	836.80	33.40	10.54	2078.00	164.00	2242.00	185.90	228.10	0.0375	974	1470	2001
LONDON	759.00	75.10	834.10	33.40	9.78	2102.00	143.00	2245.00	160.10	202.80	0.0370	980	1479	2013
PARIS	813.70	60.30	874.00	34.16	8.76	2253.00	113.00	2366.00	129.00	174.80	0.0345	1016	1537	2096
BORDEAUX	880.90	87.30	968.20	35.76	10.54	2437.00	164.00	2601.00	185.90	235.50	0.0318	1066	1619	2213
ANTWERP	944.90	75.10	1020.00	36.86	9.78	2614.00	143.00	2757.00	160.10	213.30	0.0297	1106	1685	2306
BERLIN	1006.50	87.30	1093.80	38.20	10.54	2784.00	164.00	2948.00	185.90	242.50	0.0278	1148	1755	2407
MADRID	1013.10	75.10	1088.20	38.20	9.78	2801.00	143.00	2944.00	160.10	217.10	0.0276	1151	1760	2414
ATHENS	1409.70	87.30	1497.00	44.75	10.54	3900.00	164.00	4064.00	185.90	265.20	0.0199	1364	2125	2949

US Customary ULS Sizes†

ULS IRVING	308.80	60.30	369.10	22.40	8.76	851.00	109.00	960.00	156.10	173.40	0.0903	585	857	1147
ULS AMARILLO	397.60	71.30	468.90	25.14	9.53	1097.00	128.00	1225.00	183.30	205.50	0.0702	678	1001	1347
ULS LUBBOCK	458.00	60.30	518.30	26.42	8.76	1261.00	109.00	1370.00	156.10	181.50	0.0608	735	1089	1468
ULS GALVESTON	512.40	60.30	572.70	27.69	8.76	1411.00	109.00	1520.00	156.10	184.60	0.0544	784	1165	1573
ULS DRAKE	519.70	71.30	591.00	28.14	9.53	1433.00	128.00	1561.00	183.30	212.20	0.0536	792	1179	1593
ULS CURLEW	523.40	87.30	610.70	28.96	10.54	1455.00	157.00	1612.00	225.10	254.50	0.0535	798	1190	1609
ULS PLANO	536.80	60.30	597.10	28.63	8.76	1482.00	109.00	1591.00	156.10	185.90	0.0522	805	1200	1622
ULS CORPUS CHRISTI	558.90	60.30	619.20	29.11	8.76	1542.00	109.00	1651.00	156.10	187.20	0.0501	824	1230	1663
ULS ARLINGTON	583.20	71.30	654.50	29.90	9.53	1613.00	128.00	1741.00	183.30	215.80	0.0480	846	1265	1713
ULS CARDINAL	619.10	60.30	679.40	30.43	8.76	1709.00	109.00	1818.00	156.10	190.80	0.0452	874	1308	1774
ULS FORT WORTH	658.90	71.30	730.20	31.50	9.53	1820.00	128.00	1948.00	183.30	220.20	0.0425	906	1361	1848
ULS EL PASO	684.00	60.30	744.30	31.80	8.76	1887.00	109.00	1996.00	156.10	194.40	0.0409	924	1390	1888
ULS BEAUMONT	723.90	71.30	795.20	32.87	9.53	2005.00	128.00	2133.00	183.30	223.80	0.0387	956	1441	1960
ULS SAN ANTONIO	747.30	75.10	822.40	33.40	9.78	2068.00	135.00	2203.00	193.50	235.30	0.0375	973	1469	2000
ULS BITTERN	801.40	60.30	861.70	34.16	8.76	2216.00	109.00	2325.00	156.10	201.00	0.0352	1006	1522	2075
ULS DALLAS	909.50	75.10	984.60	36.88	9.78	2528.00	135.00	2663.00	193.50	244.70	0.0309	1086	1654	2263
ULS HOUSTON	976.60	87.30	1063.90	38.25	10.54	2714.00	157.00	2871.00	225.10	279.80	0.0285	1135	1736	2380
ULS LAPWING	987.50	75.10	1062.60	38.20	9.78	2744.00	135.00	2879.00	193.50	248.70	0.0285	1134	1734	2378
ULS FALCON	1036.20	87.30	1123.50	39.24	10.54	2879.00	157.00	3036.00	225.10	283.40	0.0271	1167	1789	2457
ULS CHUKAR	1135.80	79.10	1214.90	40.74	10.03	3156.00	142.00	3298.00	205.10	268.70	0.0247	1224	1884	2595
ULS BLUEBIRD	1388.70	87.30	1476.00	44.75	10.54	3858.00	157.00	4015.00	225.10	302.90	0.0203	1353	2107	2922

ACCC® (Aluminum Conductor Composite Core)

Conductor Name	Cross-Sectional Area			Diameter		Weight			Rated Strength		DC Resistance @ 20°C	Current Capacity		
	AL	Core	Total	Conductor	Core	Aluminum	Core	Total	Core	Conductor		@ 85°C	@ 120°C	@ 180°C
	(mm ²)	(mm ²)	(mm ²)	(mm)	(mm)	(Kg/Km)	(Kg/Km)	(Kg/Km)	(KN)	(KN)		(Ω/Km)	(Ampere)	(Ampere)
International ULS Sizes†														
ULS MONTE CARLO	228.50	87.30	315.80	20.78	10.54	635.00	157.00	792.00	225.10	238.00	0.1230	494	720	962
ULS OSLO	313.80	60.30	374.10	22.40	8.76	867.00	109.00	976.00	156.10	173.80	0.0893	588	861	1154
ULS 25 MM	383.20	87.30	470.50	24.99	10.54	1059.00	157.00	1216.00	225.10	246.70	0.0730	665	981	1319
ULS LEIPZIG	406.40	71.30	477.70	25.15	9.53	1125.00	128.00	1253.00	183.30	206.20	0.0690	684	1010	1358
ULS STOCKHOLM 3L	453.70	60.30	514.00	26.39	8.76	1254.00	109.00	1363.00	156.10	181.60	0.0617	730	1081	1457
ULS STOCKHOLM 2L	463.30	60.30	523.60	26.39	8.76	1281.00	109.00	1390.00	156.10	182.20	0.0605	737	1092	1471
ULS WARSAW	507.50	60.30	567.80	27.71	8.76	1405.00	109.00	1514.00	156.10	184.70	0.0553	778	1156	1561
ULS DUBLIN	524.50	71.30	595.80	28.14	9.53	1452.00	128.00	1580.00	183.30	212.80	0.0534	794	1181	1596
ULS KOLKATA	543.50	71.30	614.80	28.63	9.53	1511.00	128.00	1639.00	183.30	213.90	0.0517	809	1206	1630
ULS MAHAKAM	544.90	87.30	632.20	29.01	10.54	1506.00	157.00	1663.00	225.10	255.70	0.0514	814	1214	1642
ULS HAMBURG	546.40	60.30	606.70	28.63	8.76	1513.00	109.00	1622.00	156.10	186.80	0.0514	811	1209	1634
ULS MILAN	567.70	60.30	628.00	29.11	8.76	1572.00	109.00	1681.00	156.10	188.00	0.0494	830	1238	1675
ULS ROME	592.50	71.30	663.80	29.90	9.53	1642.00	128.00	1770.00	183.30	216.60	0.0474	851	1273	1724
ULS VIENNA	629.20	60.30	689.50	30.43	8.76	1738.00	109.00	1847.00	156.10	191.50	0.0445	880	1318	1787
ULS BUDAPEST	668.30	71.30	739.60	31.50	9.53	1852.00	128.00	1980.00	183.30	220.90	0.0420	912	1369	1859
ULS MUMBAI	685.40	71.30	756.70	31.78	9.53	1903.00	128.00	2031.00	183.30	221.90	0.0410	924	1388	1886
ULS PRAGUE	690.70	60.30	751.00	31.78	8.76	1916.00	109.00	2025.00	156.10	195.00	0.0407	926	1393	1892
ULS DHAKA	723.90	71.30	795.20	32.87	9.53	2005.00	128.00	2133.00	183.30	224.00	0.0387	956	1441	1960
ULS MUNICH	733.20	71.30	804.50	32.84	9.53	2038.00	128.00	2166.00	183.30	224.50	0.0384	959	1446	1967
ULS WARWICK	749.50	87.30	836.80	33.40	10.54	2079.00	157.00	2236.00	225.10	267.30	0.0375	974	1470	2001
ULS LONDON	759.00	75.10	834.10	33.40	9.78	2105.00	135.00	2240.00	193.50	236.20	0.0370	980	1479	2013
ULS PARIS	813.70	60.30	874.00	34.16	8.76	2252.00	109.00	2361.00	156.10	201.90	0.0345	1016	1537	2096
ULS BORDEAUX	880.90	87.30	968.20	35.76	10.54	2438.00	157.00	2595.00	225.10	274.70	0.0318	1066	1619	2213
ULS ANTWERP	944.90	75.10	1020.00	36.86	9.78	2617.00	135.00	2752.00	193.50	246.70	0.0297	1106	1685	2306
ULS BERLIN	1006.50	87.30	1093.80	38.20	10.54	2785.00	157.00	2942.00	225.10	281.70	0.0278	1148	1755	2407
ULS MADRID	1013.10	75.10	1088.20	38.20	9.78	2805.00	135.00	2940.00	193.50	250.50	0.0276	1151	1760	2414
ULS ATHENS	1409.70	87.30	1497.00	44.75	10.54	3902.00	157.00	4059.00	225.10	304.40	0.0199	1364	2125	2949

NOTE :

Current capacity based on referenced conductor temperature, 0.56 m/s wind, 0 m Elevation, 0.45 Emmisivity, 0.80 absorptivity, 45°C Ambient temperature, 1045 W/m² Solar radiation.

†ULS Conductors have a composite core that exhibits a higher tensile strength and modulus, used for long span crossing and heavy ice loads.

ACCC® Conductors are manufactured under liscence from CTC Global USA.