

15kV-25kV-35kV Multi-layer Tree Wire

Aluminum Conductors. Track-Resistant HD Polyethylene or Track-Resistant Crosslinked Polyethylene Covering.

Construction

Conductors are concentrically stranded, AAC (1350-H19), either compressed or full compact depending on conductor size, AAAC or ACSR. Available with high-density track-resistant polyethylene (HDTRPE) or Track-Resistant Crosslinked Polyethylene (XLPE) covering. Strand shield option available as shown in illustration.

Application

Used for primary and secondary overhead distribution where limited space is available or desirable for rights of way. Installed as an uninsulated conductor; however, covering is effective in preventing direct shorts and instantaneous flashovers should tree limbs or other objects contact conductors in such close proximity. The resulting close-proximity configuration minimizes the amount of space and hardware required for line installation; particularly useful in congested areas such as alleyways or tight corridors.

Specifications

Southwire's 15kV – 35kV covered multi-layer tree wire meets or exceeds all applicable ICEA specifications and the following ASTM specifications:

ASTM B230
ASTM B231
ASTM B232
ASTM B398
ASTM B399
ASTM B400



2 Layer Tree Wire



3 Layer Tree Wire



2-Layer 15kV ACSR Tree Wire

Size (AWG or kcmil)	Stranding	Conductor Diameter (mils)	Covering Thickness (mils)		Cable O.D. (mils)	Rated Strength (lbs)	Weight per 1000 ft. (lbs)
			Inner Layer	Outer Layer			
4	6/1	250	75	75	550	1767	136
2	6/1	316	75	75	616	2708	184
1/0	6/1	398	75	75	698	4161	255
2/0	6/1	447	75	75	747	5045	303
3/0	6/1	502	75	75	802	6289	362
4/0	6/1	563	75	75	863	7933	432
266.8	18/1	609	75	75	909	6536	441
266.8	26/7	642	75	75	942	10735	452
336.4	18/1	684	75	75	984	8246	536
336.4	26/7	720	75	75	1020	13395	555
336.4	30/7	741	75	75	1041	16435	621
397.5	18/1	743	75	75	1043	9443	611
397.5	24/7	772	75	75	1072	13870	609
397.5	26/7	783	75	75	1083	1545	645
477	24/7	846	75	75	1146	16340	719
477	26/7	858	75	75	1158	18525	762
477	30/7	883	75	75	1183	22610	854
556.5	18/1	879	75	75	1179	13015	813
556.5	24/7	914	75	75	1214	18810	828
556.5	26/7	927	75	75	1227	21470	878
636	18/1	940	75	75	1240	14915	912
636	24/7	977	75	75	1277	20900	936
636	26/7	990	75	75	1290	23940	993
795	26/7	1108	80	75	1428	29925	1234
795	45/7	1063	80	80	1383	20995	1031

2-Layer 15kV ACSR Tree Wire

Size (kcmil)	Equivalent AAC (AWG or kcmil)	Stranding	Conductor Diameter (mils)	Covering Thickness (mils)		Cable O.D. (mils)	Rated Strength (lbs)	Weight per 1000 ft. (lbs)
				Inner Layer	Outer Layer			
48.69	4	7	250	75	75	550	1584	124
77.47	2	7	316	75	75	616	2520	165
123.3	1/0	7	398	75	75	698	4014	225
155.4	2/0	7	447	75	75	747	4851	265
195.7	3/0	7	502	75	75	802	6111	314
246.9	4/0	7	563	75	75	863	7704	376
312.8	266.8	19	642	75	75	942	9900	450
394.5	336.4	19	720	75	75	1020	11970	543
465.4	397.5	19	782	75	75	1082	14040	623
559.5	477	19	858	75	75	1158	16920	727
652.4	556.5	19	927	75	75	1227	19710	828
740.8	636	37	990	80	80	1310	21960	938

2-Layer 15kV AAC Tree Wire

Size (AWG or kcmil)	Stranding	Conductor Diameter (mils)	Covering Thickness (mils)		Cable O.D. (mils)	Rated Strength (lbs)	Weight per 1000 ft. (lbs)
			Inner Layer	Outer Layer			
1/0	7	336	75	75	636	1791	196
2/0	7	376	75	75	676	2259	230
3/0	7	423	75	75	723	2736	272
4/0	7	475	75	75	775	3447	325
266.8	19	537	75	75	837	4473	387
336.4	19	603	75	75	903	5535	466
397.5	19	659	75	75	959	6399	535
477	19	722	75	75	1022	7524	623
556.5	37	780	75	75	1080	8946	708
636	37	835	75	75	1135	10260	794

3-Layer 15kV ACSR Tree Wire

Size (AWG or kcmil)	Stranding	Conductor Diameter (mils)	Covering Thickness (mils)			Cable O.D. (mils)	Rated Strength (lbs)	Weight per 1000 ft. (lbs)
			Conductor Shield	Inner Layer	Outer Layer			
4	6/1	250	15	75	75	580	1767	151
2	6/1	316	15	75	75	646	2708	202
1/0	6/1	398	15	75	75	728	4161	278
2/0	6/1	447	15	75	75	777	5045	330
3/0	6/1	502	15	75	75	832	6289	393
4/0	6/1	563	15	75	75	893	7933	471
266.8	18/1	609	15	75	75	939	6536	474
266.8	26/7	642	15	75	75	972	10735	553
336.4	18/1	684	15	75	75	1014	8246	570
336.4	26/7	720	15	75	75	1050	13395	669
336.4	30/7	741	15	75	75	1071	16435	935
397.5	18/1	743	15	75	75	1073	9443	653
397.5	24/7	772	15	75	75	1102	13870	707
397.5	26/7	783	15	75	75	1113	15485	770
477	24/7	846	15	75	75	1176	16340	824
477	26/7	858	15	75	75	1188	18525	899
477	30/7	883	15	75	75	1213	22610	1274
556.5	18/1	879	20	75	75	1219	13015	874
556.5	24/7	914	20	75	75	1254	18810	949
556.5	26/7	927	20	75	75	1267	21470	1036
636	18/1	940	20	75	75	1280	14915	1200
636	26/7	990	20	75	75	1330	23940	1373

3-Layer 15kV AAAC Tree Wire

Size (kcmil)	Equivalent AAC (AWG or kcmil)	Stranding	Conductor Diameter (mils)	Covering Thickness (mils)			Cable O.D. (mils)	Rated Strength (lbs)	Weight per 1000 ft. (lbs)
				Conductor Shield	Inner Layer	Outer Layer			
48.69	4	7	250	15	75	75	580	1584	137
77.47	2	7	316	15	75	75	646	2520	179
123.3	1/0	7	398	15	75	75	728	4014	241
155.4	2/0	7	447	15	75	75	777	4851	283
195.7	3/0	7	502	15	75	75	832	6111	334
246.9	4/0	7	563	15	75	75	893	7704	397
312.8	266.8	19	642	15	75	75	972	9900	473
394.5	336.4	19	720	15	75	75	1050	11970	568
465.4	397.5	19	783	15	75	75	1113	14040	649
559.5	477	19	858	15	75	75	1188	16920	755
652.4	556.5	19	927	20	75	75	1267	19710	894
740.8	636	37	990	20	75	75	1330	21960	963

3-Layer 15kV AAC Tree Wire

Size (AWG or kcmil)	Stranding	Conductor Diameter (mils)	Covering Thickness (mils)			Cable O.D. (mils)	Rated Strength (lbs)	Weight per 1000 ft. (lbs)
			Conductor Shield	Inner Layer	Outer Layer			
1/0	7	336	15	75	75	666	1791	210
2/0	7	376	15	75	75	706	2259	246
3/0	7	423	15	75	75	753	2736	289
4/0	7	475	15	75	75	805	3447	343
266.8	19	537	15	75	75	867	4473	407
336.4	19	603	15	75	75	933	5535	487
397.5	19	659	15	75	75	989	6399	558
477	19	722	15	75	75	1052	7524	648
556.5	37	780	20	75	75	1120	8946	742
636	37	835	20	80	80	1195	10260	846
795	37	932	20	80	80	1292	12510	1020

3-Layer 25kV ACSR Tree Wire

Size (AWG or kcmil)	Stranding	Conductor Diameter (mils)	Covering Thickness (mils)			Cable O.D. (mils)	Rated Strength (lbs)	Weight per 1000 ft. (lbs)
			Conductor Shield	Inner Layer	Outer Layer			
1/0	6/1	398	15	125	125	928	4161	385
2/0	6/1	447	15	125	125	977	5045	443
3/0	6/1	502	15	125	125	1032	6289	513
4/0	6/1	563	15	125	125	1093	7933	600
266.8	18/1	609	15	125	125	1139	6536	608
266.8	26/7	642	15	125	125	1172	10735	692
336.4	18/1	684	15	125	125	1214	8246	714
336.4	26/7	720	15	125	125	1250	13395	818
336.4	30/7	741	15	125	125	1271	16435	1086
397.5	18/1	743	15	125	125	1273	9443	804
397.5	24/7	772	15	125	125	1302	13870	863
397.5	26/7	783	15	125	125	1313	15485	926
477	24/7	846	20	125	125	1386	16340	999
477	26/7	858	20	125	125	1398	18525	1076
477	30/7	883	20	125	125	1423	22610	1458
556.5	18/1	879	20	125	125	1419	13015	1045
556.5	24/7	914	20	125	125	1454	18810	1124
556.5	26/7	927	20	125	125	1467	21470	1213

3-Layer 25kV AAC Tree Wire

Size (kcmil)	Equivalent AAC (AWG or kcmil)	Stranding	Conductor Diameter (mils)	Covering Thickness (mils)			Cable O.D. (mils)	Rated Strength (lbs)	Weight per 1000 ft. (lbs)
				Conductor Shield	Inner Layer	Outer Layer			
48.69	4	7	250	15	125	125	780	1584	225
77.47	2	7	316	15	125	125	846	2520	275
123.3	1/0	7	398	15	125	125	928	4014	348
155.4	2/0	7	447	15	125	125	977	4851	396
195.7	3/0	7	502	15	125	125	1032	6111	454
246.9	4/0	7	563	15	125	125	1093	7704	525
312.8	266.8	19	642	15	125	125	1172	9900	611
394.5	336.4	19	720	15	125	125	1251	11970	716
465.4	397.5	19	783	15	125	125	1313	14040	805
559.5	477	19	858	20	125	125	1398	16920	932
652.4	556.5	19	927	20	125	125	1467	19710	1044
740.8	636	37	990	20	125	125	1530	21960	1148
927.2	795	37	1108	20	125	125	1648	27450	1389

3-Layer 25kV AAC Tree Wire

Size (AWG or kcmil)	Stranding	Conductor Diameter (mils)	Covering Thickness (mils)			Cable O.D. (mils)	Rated Strength (lbs)	Weight per 1000 ft. (lbs)
			Conductor Shield	Inner Layer	Outer Layer			
1/0	7	336	15	125	125	866	1791	309
2/0	7	376	15	125	125	906	2259	350
3/0	7	423	15	125	125	953	2736	400
4/0	7	475	15	125	125	1005	3447	460
266.8	19	537	15	125	125	1067	4473	531
336.4	19	603	15	125	125	1133	5535	621
397.5	19	659	15	125	125	1189	6399	698
477	19	722	20	125	125	1262	7524	806
556.5	37	780	20	125	125	1320	8946	899
636	37	835	20	125	125	1375	10260	995
795	37	932	20	125	125	1472	12510	1181

3-Layer 35kV ACSR Tree Wire

Size (AWG or kcmil)	Stranding	Conductor Diameter (mils)	Covering Thickness (mils)			Cable O.D. (mils)	Rated Strength (lbs)	Weight per 1000 ft. (lbs)
			Conductor Shield	Inner Layer	Outer Layer			
1/0	6/1	398	15	175	125	1028	4161	448
2/0	6/1	447	15	175	125	1077	5045	509
4/0	6/1	563	15	175	125	1193	7933	673
266.8	18/1	609	15	175	125	1239	6536	684
266.8	26/7	642	15	175	125	1272	10735	770
336.4	18/1	684	15	175	125	1314	8246	794
336.4	26/7	720	15	175	125	1350	13395	901
336.4	30/7	741	15	175	125	1371	16435	1170
397.5	18/1	743	15	175	125	1373	9443	889
397.5	24/7	772	15	175	125	1402	13870	949
397.5	26/7	783	15	175	125	1413	15485	1013
477	24/7	846	20	175	125	1486	16340	1091
477	26/7	858	20	175	125	1498	18525	1168
477	30/7	883	20	175	125	1523	22610	1552
556.5	18/1	879	20	175	125	1519	13015	1138
556.5	24/7	914	20	175	125	1554	18810	1220
556.5	26/7	927	20	175	125	1567	21470	1309
636	18/1	940	20	175	125	1580	14915	1637
636	26/7	990	20	175	125	1630	23940	1826
795	26/7	1107	20	175	125	1747	29925	2146
795	45/7	1063	20	175	125	1703	20995	1892

3-Layer 35kV AAAC Tree Wire

Size (kcmil)	Equivalent AAC (AWG or kcmil)	Stranding	Conductor Diameter (mils)	Covering Thickness (mils)			Cable O.D. (mils)	Rated Strength (lbs)	Weight per 1000 ft. (lbs)
				Conductor Shield	Inner Layer	Outer Layer			
48.69	4	7	250	15	175	125	880	1584	278
77.47	2	7	316	15	175	125	946	2520	333
123.3	1/0	7	398	15	175	125	1028	4014	411
155.4	2/0	7	447	15	175	125	1077	4851	462
195.7	3/0	7	502	15	175	125	1132	6111	523
246.9	4/0	7	563	15	175	125	1193	7704	598
312.8	266.8	19	642	15	175	125	1272	9900	689
394.5	336.4	19	720	15	175	125	1351	11970	799
465.4	397.5	19	783	15	175	125	1412	14040	892
559.5	477	19	858	20	175	125	1498	16920	1024
652.4	556.5	19	927	20	175	125	1567	19710	1141

3-Layer 35kV AAC Tree Wire

Size (AWG or kcmil)	Stranding	Conductor Diameter (mils)	Covering Thickness (mils)			Cable O.D. (mils)	Rated Strength (lbs)	Weight per 1000 ft. (lbs)
			Conductor Shield	Inner Layer	Outer Layer			
1/0	7	336	15	175	125	966	1791	368
2/0	7	376	15	175	125	1006	2259	411
3/0	7	423	15	175	125	1053	2736	464
4/0	7	475	15	175	125	1105	3447	527
266.8	19	537	15	175	125	1167	4473	603
336.4	19	603	15	175	125	1233	5535	696
397.5	19	659	15	175	125	1289	6399	777
477	19	722	20	175	125	1362	7524	889
556.5	37	780	20	175	125	1420	8946	987
636	37	835	20	175	125	1475	10260	1085
795	37	932	20	175	125	1572	12510	1278