69 kV Shielded Single Conductor Unfilled X L P E Power Cable

in Underground Duct Bank - 1 Circuit - Three Cables - 12 in Spacing

25°C Earth Ambient

Condr Size	Shield Res	60 Rho 75 LF	60 Rho 100 LF	90 Rho 75 LF	90 Rho 100 LF	120 Rho 75 LF	120 Rho 100 LF	delta Td for .0010 pf & Rho 60	90	120
		90°C - Copper Conductor - Concentric Strand								
500	69	530	494	497	451	469	418	0.1	0.2	0.2
500	103	551	514	517	470	489	436	0.1	0.2	0.2
500	138	569	530	535	486	506	451	0.1	0.2	0.2
500	207	591	551	556	507	527	471	0.1	0.2	0.2
750	69	614	569	572	517	538	477	0.1	0.2	0.2
750	103	646	600	604	546	568	504	0.1	0.2	0.2
750	138	674	624	630	569	594	526	0.1	0.2	0.2
750	207	710	658	665	601	627	557	0.1	0.2	0.2
750	Open	822	768	775	708	735	660	0.1	0.2	0.2
1000	69	677	624	629	564	589	519	0.2	0.2	0.2
1000	103	719	664	669	602	627	553	0.2	0.2	0.2
1000	138	756	697	704	632	660	582	0.2	0.2	0.2
1000	207	804	741	750	675	705	623	0.2	0.2	0.2
1000	Open	962	896	905	823	856	764	0.2	0.2	0.2
1250	69	725	666	671	600	627	550	0.2	0.2	0.2
1250	103	775	713	718	644	672	591	0.2	0.2	0.2
1250	138	819	753	760	681	712	625	0.2	0.2	0.2
1250	207	878	807	816	732	765	674	0.2	0.2	0.2
1250	Open	1080	1003	1013	918	956	852	0.2	0.2	0.2
1500	Open	1181	1094	1106	1000	1042	926	0.2	0.2	0.2
1750	Open	1269	1174	1186	1070	1116	989	0.2	0.2	0.3
2000	Open	1349	1245	1258	1132	1182	1046	0.2	0.2	0.3
2250	Open	1413	1302	1316	1183	1236	1091	0.2	0.2	0.3
2500	Open	1475	1357	1372	1231	1287	1134	0.2	0.2	0.3

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

in Underground Duct Bank - 1 Circuit - Three Cables - 12 in Spacing

25°C Earth Ambient

Condr Size	Shield Res	60 Rho 75 LF	60 Rho 100 LF	90 Rho 75 LF	90 Rho 100 LF	120 Rho 75 LF	120 Rho 100 LF
		Total Watts/ft					
90°C - Copper Conductor - Concentric Strand							
500	69	42.3	36.8	37.2	30.7	33.2	26.4
500	103	41.4	36.0	36.5	30.1	32.6	26.0
500	138	40.6	35.3	35.9	29.7	32.2	25.6
500	207	39.3	34.2	34.8	29.0	31.3	25.0
750	69	45.7	39.3	39.7	32.4	35.1	27.6
750	103	44.8	38.6	39.1	32.0	34.6	27.3
750	138	44.0	37.7	38.4	31.4	34.2	26.8
750	207	42.6	36.6	37.4	30.5	33.2	26.2
750	Open	37.9	33.1	33.7	28.1	30.3	24.5
1000	69	48.6	41.3	42.0	33.8	36.8	28.6
1000	103	47.7	40.7	41.3	33.5	36.3	28.2
1000	138	46.9	39.9	40.7	32.8	35.8	27.8
1000	207	45.4	38.6	39.5	32.0	34.9	27.3
1000	Open	39.9	34.7	35.4	29.3	31.6	25.2
1250	69	50.8	42.8	43.5	34.8	38.0	29.3
1250	103	49.8	42.2	42.8	34.4	37.5	29.0
1250	138	49.0	41.4	42.2	33.9	37.1	28.6
1250	207	47.5	40.2	41.1	33.1	36.1	28.0
1250	Open	41.6	35.9	36.6	30.1	32.6	25.9
1500	Open	42.9	36.8	37.6	30.8	33.4	26.4
1750	Open	44.1	37.7	38.5	31.4	34.1	26.8
2000	Open	45.2	38.6	39.4	31.9	34.8	27.2
2250	Open	46.1	39.2	40.0	32.4	35.3	27.6
2500	Open	47.0	39.8	40.7	32.8	35.8	27.8

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

in Underground Duct Bank - 1 Circuit - Three Cables - 12 in Spacing

25°C Earth Ambient

Condr Size	Sheath Res	OD	Duct ID	Wd	Rac	Qs	Ri	Rj	Rsd	Rd	Re @ 90 Rho & loss 75%	Re @ 90 Rho & loss factor 100%
					90°C - Copper Conductor - Concentric Strand							
500	69	2.679	5.05	0.03	27.39	1.899	1.95	0.27	1.48	0.24	2.03	3.16
500	103	2.679	5.05	0.03	27.39	1.709	1.95	0.27	1.49	0.24	2.03	3.30
500	138	2.679	5.05	0.03	27.39	1.536	1.95	0.27	1.49	0.24	2.11	3.30
500	207	2.679	5.05	0.03	27.39	1.380	1.95	0.27	1.50	0.24	2.11	3.30
750	69	2.918	5.05	0.03	18.60	2.267	1.72	0.32	1.35	0.24	2.03	3.16
750	103	2.918	5.05	0.03	18.60	1.992	1.72	0.32	1.36	0.24	2.03	3.16
750	138	2.918	5.05	0.03	18.60	1.787	1.72	0.32	1.36	0.24	2.03	3.30
750	207	2.918	5.05	0.03	18.60	1.528	1.72	0.32	1.37	0.24	2.11	3.30
750	Open	2.918	5.05	0.03	18.60	1.002	1.72	0.32	1.40	0.24	2.11	3.30
1000	69	3.107	5.05	0.03	14.30	2.589	1.56	0.30	1.26	0.24	2.03	3.16
1000	103	3.107	5.05	0.03	14.30	2.237	1.56	0.30	1.27	0.24	2.03	3.16
1000	138	3.107	5.05	0.03	14.30	1.978	1.56	0.30	1.27	0.24	2.03	3.30
1000	207	3.107	5.05	0.03	14.30	1.656	1.56	0.30	1.28	0.24	2.11	3.30
1000	Open	3.107	5.05	0.03	14.30	1.003	1.56	0.30	1.31	0.24	2.11	3.30
1250	69	3.240	5.05	0.04	11.79	2.869	1.45	0.28	1.21	0.24	2.03	3.16
1250	103	3.240	5.05	0.04	11.79	2.447	1.45	0.28	1.21	0.24	2.03	3.16
1250	138	3.240	5.05	0.04	11.79	2.142	1.45	0.28	1.22	0.24	2.03	3.30
1250	207	3.240	5.05	0.04	11.79	1.764	1.45	0.28	1.22	0.24	2.11	3.30
1250	Open	3.240	5.05	0.04	11.79	1.005	1.45	0.28	1.26	0.24	2.11	3.30
1500	Open	3.360	5.05	0.04	10.16	1.006	1.36	0.27	1.21	0.24	2.11	3.30
1750	Open	3.470	5.05	0.04	9.03	1.007	1.29	0.26	1.17	0.24	2.11	3.30
2000	Open	3.573	5.05	0.04	8.18	1.008	1.22	0.26	1.14	0.24	2.11	3.30
2250	Open	3.668	5.05	0.04	7.60	1.010	1.17	0.25	1.11	0.24	2.11	3.30
2500	Open	3.759	5.05	0.04	7.10	1.016	1.13	0.24	1.08	0.24	2.09	3.30

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

in Underground Duct Bank - 2 Circuits - Six Cables - 12 in Spacing

25°C Earth Ambient

Condr Size	Shield Res	60 Rho 75 LF	60 Rho 100 LF	90 Rho 75 LF	90 Rho 100 LF	120 Rho 75 LF	120 Rho 100 LF	delta Td for .0010 pf & Rho 60	90	120
		90°C - Copper Conductor - Concentric Strand								
500	69	486	434	439	380	402	343	0.2	0.2	0.3
500	103	506	452	458	398	419	359	0.2	0.2	0.3
500	138	521	467	473	411	434	371	0.2	0.2	0.3
500	207	542	486	492	429	453	388	0.2	0.2	0.3
750	69	563	499	505	435	461	390	0.2	0.3	0.3
750	103	593	527	533	460	487	414	0.2	0.3	0.3
750	138	617	549	556	481	509	433	0.2	0.3	0.3
750	207	649	579	586	508	537	458	0.2	0.3	0.3
750	Open	743	669	675	591	623	535	0.2	0.3	0.3
1000	69	620	547	552	474	503	424	0.2	0.3	0.4
1000	103	659	582	588	506	536	454	0.2	0.3	0.4
1000	138	691	612	620	533	564	478	0.2	0.3	0.4
1000	207	733	652	659	568	602	511	0.2	0.3	0.4
1000	Open	865	775	783	682	720	617	0.2	0.3	0.4
1250	69	664	583	589	504	535	450	0.2	0.3	0.4
1250	103	711	625	632	542	574	484	0.2	0.3	0.4
1250	138	749	660	667	573	607	513	0.2	0.3	0.4
1250	207	800	707	715	615	651	552	0.2	0.3	0.4
1250	Open	967	864	874	759	800	684	0.2	0.3	0.4
1500	Open	1054	939	951	823	869	741	0.2	0.3	0.4
1750	Open	1129	1004	1016	878	927	789	0.3	0.3	0.4
2000	Open	1196	1062	1075	926	979	832	0.3	0.3	0.4
2250	Open	1251	1108	1121	965	1025	866	0.3	0.4	0.5
2500	Open	1303	1152	1165	1002	1065	898	0.3	0.4	0.5

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

in Underground Duct Bank - 2 Circuits - Six Cables - 12 in Spacing

25°C Earth Ambient

Condr Size	Shield Res	60 Rho 75 LF	60 Rho 100 LF	90 Rho 75 LF	90 Rho 100 LF	120 Rho 75 LF	120 Rho 100 LF
		Total Watts/ft					
90°C - Copper Conductor - Concentric Strand							
500	69	67.6	53.9	55.2	41.4	46.3	33.8
500	103	66.2	52.9	54.3	41.0	45.4	33.4
500	138	64.9	52.2	53.5	40.4	45.1	33.0
500	207	63.5	51.1	52.4	39.9	44.4	32.6
750	69	72.1	56.7	58.0	43.1	48.4	34.7
750	103	70.5	55.7	57.0	42.5	47.6	34.4
750	138	69.2	54.8	56.2	42.1	47.1	34.1
750	207	67.5	53.8	55.1	41.4	46.3	33.7
750	Open	62.0	50.3	51.2	39.3	43.6	32.2
1000	69	75.7	58.9	60.0	44.3	49.9	35.5
1000	103	74.1	57.8	59.0	43.7	49.1	35.3
1000	138	72.8	57.1	58.6	43.4	48.5	34.9
1000	207	70.9	56.1	57.3	42.6	47.9	34.6
1000	Open	64.6	51.9	53.0	40.2	44.8	33.0
1250	69	78.4	60.5	61.8	45.3	51.0	36.1
1250	103	76.9	59.5	60.8	44.8	50.2	35.7
1250	138	75.5	58.7	59.9	44.3	49.6	35.5
1250	207	73.5	57.5	58.8	43.5	48.8	35.1
1250	Open	66.7	53.3	54.6	41.2	45.7	33.5
1500	Open	68.4	54.3	55.7	41.8	46.6	33.9
1750	Open	69.9	55.3	56.6	42.4	47.2	34.2
2000	Open	71.2	56.2	57.5	42.8	47.8	34.6
2250	Open	72.4	56.8	58.2	43.2	48.7	34.8
2500	Open	73.5	57.5	58.8	43.6	49.2	35.1

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

in Underground Duct Bank - 2 Circuits - Six Cables - 12 in Spacing

25°C Earth Ambient

Condr Size	Sheath Res	OD	Duct ID	Wd	Rac	Qs	Ri	Rj	Rsd	Rd	Re @ 90 Rho & loss factor 75%	Re @ 90 Rho & loss factor 100%
					90°C - Copper Conductor - Concentric Strand							
500	69	2.679	5.05	0.03	27.39	1.745	1.95	0.27	1.43	0.24	4.00	6.34
500	103	2.679	5.05	0.03	27.39	1.577	1.95	0.27	1.44	0.24	4.00	6.34
500	138	2.679	5.05	0.03	27.39	1.456	1.95	0.27	1.45	0.24	4.00	6.34
500	207	2.679	5.05	0.03	27.39	1.317	1.95	0.27	1.45	0.24	4.00	6.34
750	69	2.918	5.05	0.03	18.60	2.043	1.72	0.32	1.31	0.24	4.00	6.34
750	103	2.918	5.05	0.03	18.60	1.801	1.72	0.32	1.31	0.24	4.00	6.34
750	138	2.918	5.05	0.03	18.60	1.631	1.72	0.32	1.32	0.24	4.00	6.34
750	207	2.918	5.05	0.03	18.60	1.438	1.72	0.32	1.33	0.24	4.00	6.34
750	Open	2.918	5.05	0.03	18.60	1.003	1.72	0.32	1.35	0.24	4.00	6.34
1000	69	3.107	5.05	0.03	14.30	2.302	1.56	0.30	1.23	0.24	4.00	6.34
1000	103	3.107	5.05	0.03	14.30	1.994	1.56	0.30	1.23	0.24	4.00	6.34
1000	138	3.107	5.05	0.03	14.30	1.782	1.56	0.30	1.24	0.24	4.00	6.34
1000	207	3.107	5.05	0.03	14.30	1.541	1.56	0.30	1.24	0.24	4.00	6.34
1000	Open	3.107	5.05	0.03	14.30	1.004	1.56	0.30	1.27	0.24	4.00	6.34
1250	69	3.240	5.05	0.04	11.79	2.524	1.45	0.28	1.17	0.24	4.00	6.34
1250	103	3.240	5.05	0.04	11.79	2.158	1.45	0.28	1.18	0.24	4.00	6.34
1250	138	3.240	5.05	0.04	11.79	1.908	1.45	0.28	1.18	0.24	4.00	6.34
1250	207	3.240	5.05	0.04	11.79	1.628	1.45	0.28	1.19	0.24	4.00	6.34
1250	Open	3.240	5.05	0.04	11.79	1.005	1.45	0.28	1.21	0.24	4.00	6.34
1500	Open	3.360	5.05	0.04	10.16	1.006	1.36	0.27	1.17	0.24	4.00	6.34
1750	Open	3.470	5.05	0.04	9.03	1.008	1.29	0.26	1.13	0.24	4.00	6.34
2000	Open	3.573	5.05	0.04	8.18	1.009	1.22	0.26	1.10	0.24	4.00	6.34
2250	Open	3.668	5.05	0.04	7.60	1.010	1.17	0.25	1.07	0.24	4.00	6.34
2500	Open	3.759	5.05	0.04	7.10	1.012	1.13	0.24	1.04	0.24	4.00	6.34

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - Triplexed - Single Circuit

25°C Earth Ambient

Condr Size	Shield Res	60 Rho Amps	60 Rho Interface Temp °C	60 Rho Flux w/ft²	90 Rho Amps	90 Rho Interface Temp °C	90 Rho Flux w/ft²	120 Rho Amps	120 Rho Interface Temp °C	120 Rho Flux w/ft²	delta Td for .0010 pf & Rho 60	90	120
						75% LF							
						90°C - Copper Conductor - Concentric Strand							
500	69	684	61	41.0	611	67	32.7	558	71	27.2	0.1	0.2	0.2
500	103	694	60	40.2	621	66	32.2	568	70	27.0	0.1	0.2	0.2
500	138	700	60	39.8	627	66	31.9	573	70	26.7	0.1	0.2	0.2
500	207	706	59	39.4	633	65	31.6	579	69	26.5	0.1	0.2	0.2
750	69	831	63	40.8	738	68	32.3	672	72	26.7	0.1	0.2	0.2
750	103	849	62	39.8	756	68	31.7	690	71	26.3	0.1	0.2	0.2
750	138	860	61	39.3	767	67	31.3	700	71	26.1	0.1	0.2	0.2
750	207	871	61	38.7	778	67	30.9	711	70	25.8	0.1	0.2	0.2
1000	69	949	64	41.2	839	70	32.2	762	73	26.6	0.1	0.2	0.2
1000	103	975	63	40.1	865	69	31.5	787	73	26.1	0.1	0.2	0.2
1000	138	991	63	39.4	881	68	31.1	802	72	25.9	0.1	0.2	0.2
1000	207	1008	62	38.7	897	68	30.7	818	72	25.6	0.1	0.2	0.2
1250	69	1041	66	41.6	917	71	32.3	831	74	26.5	0.1	0.2	0.3
1250	103	1076	64	40.4	951	70	31.6	863	74	26.1	0.1	0.2	0.3
1250	138	1096	64	39.7	971	69	31.2	882	73	25.8	0.1	0.2	0.3
1250	207	1118	63	38.9	992	69	30.7	903	72	25.4	0.1	0.2	0.3
1500	69	1116	67	41.9	981	72	32.4	887	75	26.5	0.1	0.2	0.3
1500	103	1158	65	40.6	1021	71	31.6	925	74	26.0	0.1	0.2	0.3
1500	138	1183	65	39.9	1045	70	31.2	948	74	25.6	0.1	0.2	0.3
1500	207	1210	64	39.0	1071	70	30.7	973	73	25.3	0.1	0.2	0.3
1750	69	1178	68	42.0	1033	73	32.3	933	76	26.4	0.2	0.2	0.3
1750	103	1226	66	40.7	1079	72	31.6	977	75	25.9	0.2	0.2	0.3
1750	138	1255	66	40.0	1107	71	31.1	1003	74	25.5	0.2	0.2	0.3
1750	207	1287	65	39.1	1137	70	30.6	1032	74	25.2	0.2	0.2	0.3
2000	69	1232	68	42.1	1078	73	32.3	972	77	26.3	0.2	0.2	0.3
2000	103	1287	67	40.8	1130	72	31.5	1021	76	25.7	0.2	0.2	0.3
2000	138	1320	66	40.0	1161	72	31.0	1051	75	25.4	0.2	0.2	0.3
2000	207	1355	65	39.1	1196	71	30.4	1084	74	25.1	0.2	0.2	0.3
2250	69	1275	69	42.1	1114	74	32.2	1004	77	26.1	0.2	0.2	0.3
2250	103	1335	68	40.8	1170	73	31.4	1057	76	25.6	0.2	0.2	0.3
2250	138	1371	67	40.0	1205	72	30.9	1090	75	25.3	0.2	0.2	0.3
2250	207	1410	66	39.0	1243	71	30.4	1126	75	24.9	0.2	0.2	0.3
2500	69	1315	70	42.1	1147	74	32.0	1033	77	26.0	0.2	0.2	0.3
2500	103	1380	68	40.8	1208	73	31.2	1090	76	25.5	0.2	0.2	0.3
2500	138	1419	67	40.0	1246	73	30.8	1126	76	25.2	0.2	0.2	0.3
2500	207	1463	66	39.0	1287	72	30.2	1165	75	24.8	0.2	0.2	0.3

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - Triplexed - Single Circuit

25°C Earth Ambient

Condr Size	Shield Res	60 Rho Amps	60 Rho Interface Temp °C	60 Rho Flux w/ft²	90 Rho Amps	90 Rho Interface Temp °C	90 Rho Flux w/ft²	120 Rho Amps	120 Rho Interface Temp °C	120 Rho Flux w/ft²	delta Td for .0010 pf & Rho 60	90	120
						100% LF							
						90°C - Copper Conductor - Concentric Strand							
500	69	618	66	33.5	538	72	25.4	483	75	20.5	0.1	0.2	0.2
500	103	628	66	33.0	548	71	25.2	493	75	20.3	0.1	0.2	0.2
500	138	634	65	32.7	554	71	25.0	498	75	20.2	0.1	0.2	0.2
500	207	640	65	32.3	560	71	24.8	504	74	20.1	0.1	0.2	0.2
750	69	745	68	32.8	646	73	24.7	578	77	19.8	0.1	0.2	0.2
750	103	763	67	32.2	663	73	24.3	594	76	19.5	0.1	0.2	0.2
750	138	774	67	31.8	673	72	24.2	604	76	19.4	0.1	0.2	0.2
750	207	785	66	31.4	684	72	23.9	614	75	19.3	0.1	0.2	0.2
1000	69	844	70	32.6	728	75	24.3	650	78	19.4	0.1	0.2	0.2
1000	103	871	69	31.9	753	74	23.9	673	77	19.1	0.1	0.2	0.2
1000	138	886	68	31.5	768	74	23.7	687	77	19.0	0.1	0.2	0.2
1000	207	902	67	31.1	783	73	23.5	701	76	18.8	0.1	0.2	0.2
1250	69	921	71	32.6	792	76	24.1	705	79	19.2	0.1	0.2	0.3
1250	103	955	70	31.9	823	75	23.7	734	78	18.9	0.1	0.2	0.3
1250	138	975	69	31.4	842	75	23.5	752	78	18.7	0.1	0.2	0.3
1250	207	996	69	31.0	862	74	23.2	771	77	18.6	0.1	0.2	0.3
1500	69	983	72	32.5	842	77	23.9	749	80	18.9	0.1	0.2	0.3
1500	103	1023	71	31.7	880	76	23.5	783	79	18.6	0.1	0.2	0.3
1500	138	1047	70	31.3	902	75	23.2	804	78	18.5	0.1	0.2	0.3
1500	207	1074	69	30.8	927	75	22.9	827	78	18.3	0.1	0.2	0.3
1750	69	1033	73	32.4	884	77	23.7	784	80	18.7	0.2	0.2	0.3
1750	103	1080	72	31.6	926	77	23.2	823	79	18.4	0.2	0.2	0.3
1750	138	1108	71	31.1	952	76	23.0	847	79	18.2	0.2	0.2	0.3
1750	207	1138	70	30.6	980	75	22.8	874	78	18.1	0.2	0.2	0.3
2000	69	1077	73	32.2	919	78	23.4	815	81	18.5	0.2	0.2	0.3
2000	103	1129	72	31.5	966	77	23.0	858	80	18.2	0.2	0.2	0.3
2000	138	1160	72	30.9	995	76	22.8	885	79	18.1	0.2	0.2	0.3
2000	207	1195	71	30.4	1027	76	22.5	915	79	17.9	0.2	0.2	0.3
2250	69	1111	74	32.0	946	78	23.2	838	81	18.2	0.2	0.2	0.3
2250	103	1167	73	31.2	998	78	22.8	885	80	18.0	0.2	0.2	0.3
2250	138	1202	72	30.8	1029	77	22.6	914	80	17.8	0.2	0.2	0.3
2250	207	1240	71	30.2	1064	76	22.3	947	79	17.7	0.2	0.2	0.3
2500	69	1143	75	31.8	972	79	23.0	860	81	18.1	0.2	0.2	0.3
2500	103	1204	73	31.1	1027	78	22.6	911	81	17.8	0.2	0.2	0.3
2500	138	1241	73	30.5	1061	77	22.3	942	80	17.7	0.2	0.2	0.3
2500	207	1282	72	30.0	1099	77	22.1	977	79	17.5	0.2	0.2	0.3

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - Triplexed - Single Circuit

25°C Earth Ambient

Condr Size	Shield Res	60 Rho Amps	60 Rho Interface Temp °C	60 Rho Flux w/ft²	90 Rho Amps	90 Rho Interface Temp °C	90 Rho Flux w/ft²	120 Rho Amps	120 Rho Interface Temp °C	120 Rho Flux w/ft²	delta Td for .0010 pf & Rho 60	90	120
						75% LF							
						80°C - Copper Conductor - Concentric Strand							
500	69	637	55	34.9	568	60	27.8	519	64	23.1	0.1	0.2	0.2
500	103	647	55	34.1	578	60	27.3	529	63	22.8	0.1	0.2	0.2
500	138	652	54	33.8	584	60	27.0	534	63	22.6	0.1	0.2	0.2
500	207	658	54	33.3	590	59	26.8	540	63	22.5	0.1	0.2	0.2
750	69	772	57	34.7	686	62	27.4	624	65	22.7	0.1	0.2	0.2
750	103	790	56	33.8	703	61	26.9	641	64	22.4	0.1	0.2	0.2
750	138	800	56	33.3	714	61	26.6	651	64	22.1	0.1	0.2	0.2
750	207	811	55	32.8	724	60	26.2	662	63	21.9	0.1	0.2	0.2
1000	69	880	58	35.0	778	63	27.3	706	66	22.5	0.1	0.2	0.2
1000	103	906	57	34.0	803	62	26.8	730	65	22.2	0.1	0.2	0.2
1000	138	921	57	33.5	818	62	26.4	745	65	21.9	0.1	0.2	0.2
1000	207	937	56	32.8	834	61	26.0	760	64	21.6	0.1	0.2	0.2
1250	69	964	60	35.4	849	64	27.5	769	67	22.5	0.1	0.2	0.3
1250	103	997	59	34.3	881	63	26.8	800	66	22.1	0.1	0.2	0.3
1250	138	1017	58	33.7	901	63	26.4	818	66	21.8	0.1	0.2	0.3
1250	207	1038	57	33.1	921	62	26.0	838	65	21.5	0.1	0.2	0.3
1500	69	1032	60	35.6	906	65	27.4	819	68	22.5	0.1	0.2	0.3
1500	103	1072	59	34.5	945	64	26.8	856	67	22.1	0.1	0.2	0.3
1500	138	1096	59	33.9	968	63	26.4	878	66	21.8	0.1	0.2	0.3
1500	207	1122	58	33.1	993	63	26.0	903	66	21.5	0.1	0.2	0.3
1750	69	1088	61	35.7	953	66	27.4	861	68	22.4	0.2	0.2	0.3
1750	103	1134	60	34.6	998	65	26.8	903	67	21.9	0.2	0.2	0.3
1750	138	1162	59	33.9	1024	64	26.4	928	67	21.6	0.2	0.2	0.3
1750	207	1193	59	33.2	1054	63	25.9	956	66	21.4	0.2	0.2	0.3
2000	69	1137	62	35.8	994	66	27.3	896	69	22.3	0.2	0.2	0.3
2000	103	1189	61	34.7	1044	65	26.7	943	68	21.8	0.2	0.2	0.3
2000	138	1221	60	34.0	1074	65	26.3	972	67	21.6	0.2	0.2	0.3
2000	207	1256	59	33.2	1107	64	25.8	1004	67	21.2	0.2	0.2	0.3
2250	69	1176	62	35.8	1026	67	27.3	925	69	22.2	0.2	0.2	0.3
2250	103	1233	61	34.6	1080	66	26.6	975	68	21.7	0.2	0.2	0.3
2250	138	1267	61	33.9	1113	65	26.2	1007	68	21.5	0.2	0.2	0.3
2250	207	1306	60	33.1	1150	64	25.7	1041	67	21.1	0.2	0.2	0.3
2500	69	1212	63	35.7	1057	67	27.2	951	69	22.0	0.2	0.2	0.3
2500	103	1274	62	34.6	1115	66	26.5	1006	69	21.6	0.2	0.2	0.3
2500	138	1312	61	33.9	1151	65	26.1	1040	68	21.3	0.2	0.2	0.3
2500	207	1353	60	33.1	1190	65	25.6	1077	67	21.0	0.2	0.2	0.3

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - Triplexed - Single Circuit

25°C Earth Ambient

Condr Size	Shield Res	60 Rho Amps	60 Rho Interface Temp °C	60 Rho Flux w/ft²	90 Rho Amps	90 Rho Interface Temp °C	90 Rho Flux w/ft²	120 Rho Amps	120 Rho Interface Temp °C	120 Rho Flux w/ft²	delta Td for .0010 pf & Rho 60	90	120
						100% LF							
						80°C - Copper Conductor - Concentric Strand							
500	69	575	60	28.4	501	65	21.6	450	68	17.3	0.1	0.2	0.2
500	103	585	59	27.9	511	64	21.3	459	67	17.2	0.1	0.2	0.2
500	138	591	59	27.7	516	64	21.1	464	67	17.1	0.1	0.2	0.2
500	207	597	59	27.4	522	64	21.0	470	67	17.0	0.1	0.2	0.2
750	69	692	61	27.9	599	66	21.0	536	69	16.7	0.1	0.2	0.2
750	103	709	61	27.3	616	65	20.6	552	68	16.6	0.1	0.2	0.2
750	138	720	60	27.0	626	65	20.5	562	68	16.5	0.1	0.2	0.2
750	207	731	60	26.6	637	65	20.3	571	68	16.3	0.1	0.2	0.2
1000	69	783	63	27.7	675	67	20.6	602	70	16.4	0.1	0.2	0.2
1000	103	808	62	27.1	699	67	20.3	624	69	16.2	0.1	0.2	0.2
1000	138	823	62	26.7	713	66	20.1	638	69	16.1	0.1	0.2	0.2
1000	207	839	61	26.3	728	66	19.8	652	69	16.0	0.1	0.2	0.2
1250	69	853	64	27.7	733	68	20.4	652	71	16.2	0.1	0.2	0.3
1250	103	885	63	27.0	763	67	20.1	680	70	16.0	0.1	0.2	0.3
1250	138	904	63	26.7	781	67	19.9	697	70	15.9	0.1	0.2	0.3
1250	207	925	62	26.2	800	67	19.7	715	69	15.7	0.1	0.2	0.3
1500	69	909	65	27.6	778	69	20.3	691	71	16.0	0.1	0.2	0.3
1500	103	947	64	26.9	814	68	19.9	724	71	15.8	0.1	0.2	0.3
1500	138	971	63	26.6	836	68	19.7	745	70	15.7	0.1	0.2	0.3
1500	207	996	63	26.1	859	67	19.5	767	70	15.5	0.1	0.2	0.3
1750	69	954	66	27.5	815	69	20.1	723	72	15.8	0.2	0.2	0.3
1750	103	998	65	26.8	856	69	19.7	761	71	15.6	0.2	0.2	0.3
1750	138	1025	64	26.4	881	68	19.5	784	71	15.5	0.2	0.2	0.3
1750	207	1055	63	25.9	908	68	19.3	809	70	15.3	0.2	0.2	0.3
2000	69	993	66	27.3	847	70	19.9	751	72	15.6	0.2	0.2	0.3
2000	103	1043	65	26.7	892	69	19.5	792	71	15.4	0.2	0.2	0.3
2000	138	1073	65	26.3	920	69	19.3	818	71	15.3	0.2	0.2	0.3
2000	207	1107	64	25.8	951	68	19.1	846	71	15.2	0.2	0.2	0.3
2250	69	1024	67	27.2	872	70	19.7	772	72	15.5	0.2	0.2	0.3
2250	103	1078	66	26.5	921	70	19.4	817	72	15.2	0.2	0.2	0.3
2250	138	1111	65	26.1	951	69	19.2	844	71	15.1	0.2	0.2	0.3
2250	207	1147	64	25.6	984	68	18.9	876	71	15.0	0.2	0.2	0.3
2500	69	1053	67	27.0	895	71	19.5	792	73	15.3	0.2	0.2	0.3
2500	103	1111	66	26.3	947	70	19.2	840	72	15.1	0.2	0.2	0.3
2500	138	1146	65	25.9	980	69	19.0	869	72	15.0	0.2	0.2	0.3
2500	207	1186	65	25.4	1016	69	18.7	903	71	14.8	0.2	0.2	0.3

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - Triplexed - Single Circuit

25°C Earth Ambient

Condr Size	Shield Res	60 Rho Amps	60 Rho Interface Temp °C	60 Rho Flux w/ft²	90 Rho Amps	90 Rho Interface Temp °C	90 Rho Flux w/ft²	120 Rho Amps	120 Rho Interface Temp °C	120 Rho Flux w/ft²	delta Td for .0010 pf & Rho 60	90	120
						75% LF							
						65°C - Copper Conductor - Concentric Strand							
500	69	553	47	25.4	493	51	20.2	450	53	16.9	0.1	0.2	0.2
500	103	562	47	25.0	503	50	19.9	459	53	16.6	0.1	0.2	0.2
500	138	568	47	24.6	508	50	19.8	464	53	16.5	0.1	0.2	0.2
500	207	573	46	24.3	514	50	19.5	470	52	16.4	0.1	0.2	0.2
750	69	668	48	25.4	593	52	20.0	539	54	16.6	0.1	0.2	0.2
750	103	685	48	24.7	609	51	19.6	555	54	16.3	0.1	0.2	0.2
750	138	695	47	24.3	619	51	19.4	565	53	16.2	0.1	0.2	0.2
750	207	705	47	23.9	629	51	19.1	575	53	15.9	0.1	0.2	0.2
1000	69	759	49	25.6	671	53	20.0	608	55	16.5	0.1	0.2	0.2
1000	103	783	49	24.9	694	52	19.6	631	55	16.2	0.1	0.2	0.2
1000	138	798	48	24.5	708	52	19.3	644	54	16.0	0.1	0.2	0.2
1000	207	813	48	24.0	723	51	19.0	659	54	15.8	0.1	0.2	0.2
1250	69	830	50	25.9	730	54	20.1	661	56	16.5	0.1	0.2	0.3
1250	103	861	50	25.1	760	53	19.6	689	55	16.1	0.1	0.2	0.3
1250	138	879	49	24.7	778	53	19.3	706	55	16.0	0.1	0.2	0.3
1250	207	899	49	24.1	797	52	19.0	725	54	15.7	0.1	0.2	0.3
1500	69	887	51	26.1	778	54	20.1	703	56	16.4	0.1	0.2	0.3
1500	103	923	50	25.3	813	54	19.6	736	56	16.0	0.1	0.2	0.3
1500	138	945	50	24.8	834	53	19.3	756	55	15.9	0.1	0.2	0.3
1500	207	969	49	24.2	858	53	19.0	779	55	15.6	0.1	0.2	0.3
1750	69	934	52	26.1	818	55	20.0	737	57	16.4	0.2	0.2	0.3
1750	103	976	51	25.3	858	54	19.6	775	56	16.0	0.2	0.2	0.3
1750	138	1002	50	24.8	882	54	19.3	799	56	15.8	0.2	0.2	0.3
1750	207	1030	50	24.2	910	53	18.9	825	55	15.5	0.2	0.2	0.3
2000	69	974	52	26.2	851	55	20.0	766	57	16.2	0.2	0.2	0.3
2000	103	1021	51	25.4	895	54	19.5	808	56	16.0	0.2	0.2	0.3
2000	138	1050	51	24.9	923	54	19.2	835	56	15.7	0.2	0.2	0.3
2000	207	1082	50	24.3	953	53	18.9	864	55	15.5	0.2	0.2	0.3
2250	69	1006	52	26.2	877	55	19.9	790	57	16.1	0.2	0.2	0.3
2250	103	1057	52	25.3	925	55	19.4	835	57	15.9	0.2	0.2	0.3
2250	138	1089	51	24.8	955	54	19.2	863	56	15.6	0.2	0.2	0.3
2250	207	1124	50	24.2	989	54	18.8	895	56	15.4	0.2	0.2	0.3
2500	69	1036	53	26.2	903	56	19.8	812	58	16.1	0.2	0.2	0.3
2500	103	1092	52	25.4	954	55	19.4	860	57	15.8	0.2	0.2	0.3
2500	138	1126	51	24.8	987	55	19.1	891	56	15.6	0.2	0.2	0.3
2500	207	1164	51	24.2	1023	54	18.7	926	56	15.3	0.2	0.2	0.3

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - Triplexed - Single Circuit

25°C Earth Ambient

Condr Size	Shield Res	60 Rho Amps	60 Rho Interface Temp °C	60 Rho Flux w/ft²	90 Rho Amps	90 Rho Interface Temp °C	90 Rho Flux w/ft²	120 Rho Amps	120 Rho Interface Temp °C	120 Rho Flux w/ft²	delta Td for .0010 pf & Rho 60	90	120
						100% LF							
						65°C - Copper Conductor - Concentric Strand							
500	69	499	51	20.8	435	54	15.7	390	56	12.7	0.1	0.2	0.2
500	103	509	50	20.4	444	54	15.5	398	56	12.6	0.1	0.2	0.2
500	138	514	50	20.2	449	53	15.5	403	56	12.5	0.1	0.2	0.2
500	207	520	50	19.9	454	53	15.3	409	56	12.4	0.1	0.2	0.2
750	69	598	52	20.4	518	55	15.3	463	57	12.2	0.1	0.2	0.2
750	103	615	51	20.0	534	55	15.1	478	57	12.1	0.1	0.2	0.2
750	138	625	51	19.7	543	54	14.9	487	56	12.0	0.1	0.2	0.2
750	207	635	50	19.5	553	54	14.8	496	56	11.9	0.1	0.2	0.2
1000	69	675	53	20.3	582	56	15.0	518	58	12.0	0.1	0.2	0.2
1000	103	698	52	19.8	603	55	14.8	539	57	11.9	0.1	0.2	0.2
1000	138	712	52	19.5	617	55	14.6	551	57	11.7	0.1	0.2	0.2
1000	207	727	51	19.2	631	55	14.5	565	57	11.6	0.1	0.2	0.2
1250	69	734	54	20.3	630	57	14.9	560	58	11.8	0.1	0.2	0.3
1250	103	763	53	19.8	657	56	14.7	585	58	11.7	0.1	0.2	0.3
1250	138	781	52	19.5	674	56	14.5	601	58	11.6	0.1	0.2	0.3
1250	207	800	52	19.2	692	55	14.3	618	57	11.4	0.1	0.2	0.3
1500	69	780	54	20.2	667	57	14.8	593	59	11.7	0.1	0.2	0.3
1500	103	815	53	19.7	700	57	14.5	622	58	11.5	0.1	0.2	0.3
1500	138	836	53	19.4	720	56	14.4	641	58	11.4	0.1	0.2	0.3
1500	207	860	53	19.1	741	56	14.2	661	58	11.3	0.1	0.2	0.3
1750	69	818	55	20.1	699	58	14.6	619	59	11.5	0.2	0.2	0.3
1750	103	858	54	19.6	735	57	14.4	653	59	11.4	0.2	0.2	0.3
1750	138	883	54	19.3	758	57	14.2	674	58	11.3	0.2	0.2	0.3
1750	207	910	53	18.9	783	56	14.0	698	58	11.2	0.2	0.2	0.3
2000	69	850	55	20.0	724	58	14.6	641	59	11.4	0.2	0.2	0.3
2000	103	895	54	19.5	765	57	14.3	679	59	11.2	0.2	0.2	0.3
2000	138	922	54	19.2	790	57	14.1	702	59	11.1	0.2	0.2	0.3
2000	207	953	53	18.8	818	56	13.9	728	58	11.0	0.2	0.2	0.3
2250	69	875	55	19.9	745	58	14.4	659	60	11.3	0.2	0.2	0.3
2250	103	924	55	19.4	788	58	14.1	699	59	11.2	0.2	0.2	0.3
2250	138	954	54	19.0	816	57	14.0	724	59	11.0	0.2	0.2	0.3
2250	207	987	54	18.7	846	57	13.8	752	58	10.9	0.2	0.2	0.3
2500	69	899	56	19.7	764	58	14.3	675	60	11.1	0.2	0.2	0.3
2500	103	951	55	19.3	810	58	14.0	718	59	11.0	0.2	0.2	0.3
2500	138	983	55	19.0	840	57	13.8	745	59	10.9	0.2	0.2	0.3
2500	207	1020	54	18.6	873	57	13.6	776	59	10.8	0.2	0.2	0.3

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - Triplexed - Single Circuit

25°C Earth Ambient

Condr Size	Shield Res	60 Rho Amps	60 Rho Interface Temp °C	60 Rho Flux w/ft²	90 Rho Amps	90 Rho Interface Temp °C	90 Rho Flux w/ft²	120 Rho Amps	120 Rho Interface Temp °C	120 Rho Flux w/ft²	delta Td for .0010 pf & Rho 60	90	120
						75% LF							
						50°C - Copper Conductor - Concentric Strand							
500	69	445	39	16.0	397	41	12.8	362	43	10.6	0.1	0.2	0.2
500	103	453	39	15.6	405	41	12.5	370	43	10.4	0.1	0.2	0.2
500	138	458	39	15.5	410	41	12.4	374	42	10.3	0.1	0.2	0.2
500	207	463	38	15.3	415	41	12.2	379	42	10.2	0.1	0.2	0.2
750	69	536	40	16.0	475	42	12.5	432	43	10.4	0.1	0.2	0.2
750	103	550	39	15.6	489	42	12.3	445	43	10.2	0.1	0.2	0.2
750	138	559	39	15.3	498	41	12.1	454	43	10.1	0.1	0.2	0.2
750	207	568	39	15.0	507	41	12.0	462	43	10.0	0.1	0.2	0.2
1000	69	607	40	16.1	536	43	12.5	485	44	10.4	0.1	0.2	0.2
1000	103	628	40	15.6	555	42	12.3	504	44	10.1	0.1	0.2	0.2
1000	138	640	40	15.3	567	42	12.1	516	43	10.0	0.1	0.2	0.2
1000	207	653	39	15.0	580	42	11.9	529	43	9.9	0.1	0.2	0.2
1250	69	662	41	16.3	581	43	12.6	526	44	10.3	0.1	0.2	0.3
1250	103	688	41	15.8	606	43	12.3	549	44	10.1	0.1	0.2	0.3
1250	138	703	40	15.5	622	42	12.1	564	44	10.0	0.1	0.2	0.3
1250	207	721	40	15.2	638	42	11.9	580	43	9.8	0.1	0.2	0.3
1500	69	705	41	16.4	618	43	12.6	558	45	10.3	0.1	0.2	0.3
1500	103	736	41	15.9	647	43	12.3	586	44	10.1	0.1	0.2	0.3
1500	138	755	41	15.5	666	43	12.1	603	44	10.0	0.1	0.2	0.3
1500	207	776	40	15.2	686	42	11.9	622	44	9.8	0.1	0.2	0.3
1750	69	742	42	16.4	648	44	12.6	584	45	10.3	0.2	0.2	0.3
1750	103	777	41	16.0	682	43	12.3	616	45	10.1	0.2	0.2	0.3
1750	138	799	41	15.6	703	43	12.1	636	44	9.9	0.2	0.2	0.3
1750	207	823	40	15.2	726	43	11.9	658	44	9.7	0.2	0.2	0.3
2000	69	772	42	16.5	674	44	12.6	606	45	10.2	0.2	0.2	0.3
2000	103	812	42	16.0	711	44	12.3	641	45	10.0	0.2	0.2	0.3
2000	138	836	41	15.6	734	43	12.1	663	44	9.8	0.2	0.2	0.3
2000	207	863	41	15.2	760	43	11.8	688	44	9.7	0.2	0.2	0.3
2250	69	797	42	16.5	694	44	12.5	624	45	10.2	0.2	0.2	0.3
2250	103	839	42	15.9	734	44	12.2	662	45	9.9	0.2	0.2	0.3
2250	138	866	41	15.6	759	43	12.0	685	45	9.8	0.2	0.2	0.3
2250	207	896	41	15.2	788	43	11.7	713	44	9.6	0.2	0.2	0.3
2500	69	820	43	16.5	713	44	12.5	641	45	10.1	0.2	0.2	0.3
2500	103	866	42	15.9	756	44	12.2	681	45	9.9	0.2	0.2	0.3
2500	138	895	42	15.6	783	44	12.0	707	45	9.7	0.2	0.2	0.3
2500	207	927	41	15.2	814	43	11.7	736	44	9.6	0.2	0.2	0.3

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - Triplexed - Single Circuit

25°C Earth Ambient

Condr Size	Shield Res	60 Rho Amps	60 Rho Interface Temp °C	60 Rho Flux w/ft²	90 Rho Amps	90 Rho Interface Temp °C	90 Rho Flux w/ft²	120 Rho Amps	120 Rho Interface Temp °C	120 Rho Flux w/ft²	delta Td for .0010 pf & Rho 60	90	120
						100% LF							
						50°C - Copper Conductor - Concentric Strand							
500	69	402	41	13.0	349	43	9.9	313	45	8.0	0.1	0.2	0.2
500	103	410	41	12.8	357	43	9.7	321	44	7.9	0.1	0.2	0.2
500	138	415	41	12.7	362	43	9.7	325	44	7.8	0.1	0.2	0.2
500	207	420	40	12.5	367	43	9.6	330	44	7.7	0.1	0.2	0.2
750	69	480	42	12.8	415	44	9.6	371	45	7.7	0.1	0.2	0.2
750	103	494	41	12.5	428	44	9.5	383	45	7.6	0.1	0.2	0.2
750	138	502	41	12.4	436	43	9.3	391	45	7.5	0.1	0.2	0.2
750	207	511	41	12.2	445	43	9.2	399	45	7.4	0.1	0.2	0.2
1000	69	539	42	12.8	464	44	9.5	413	46	7.5	0.1	0.2	0.2
1000	103	559	42	12.5	483	44	9.3	431	45	7.4	0.1	0.2	0.2
1000	138	571	42	12.2	494	44	9.2	441	45	7.4	0.1	0.2	0.2
1000	207	584	42	12.1	506	44	9.1	453	45	7.3	0.1	0.2	0.2
1250	69	584	43	12.8	501	45	9.4	445	46	7.4	0.1	0.2	0.3
1250	103	609	43	12.4	524	45	9.2	467	46	7.4	0.1	0.2	0.3
1250	138	625	42	12.3	538	44	9.1	480	45	7.3	0.1	0.2	0.3
1250	207	642	42	12.0	554	44	9.0	495	45	7.2	0.1	0.2	0.3
1500	69	620	43	12.7	530	45	9.3	470	46	7.3	0.1	0.2	0.3
1500	103	649	43	12.4	557	45	9.1	495	46	7.2	0.1	0.2	0.3
1500	138	668	43	12.2	574	45	9.0	511	46	7.2	0.1	0.2	0.3
1500	207	688	42	12.0	593	44	8.9	528	45	7.1	0.1	0.2	0.3
1750	69	649	44	12.6	554	45	9.2	490	46	7.2	0.2	0.2	0.3
1750	103	683	43	12.3	584	45	9.0	519	46	7.1	0.2	0.2	0.3
1750	138	704	43	12.1	603	45	8.9	536	46	7.1	0.2	0.2	0.3
1750	207	727	43	11.9	625	45	8.8	556	46	7.0	0.2	0.2	0.3
2000	69	674	44	12.5	573	46	9.1	507	47	7.1	0.2	0.2	0.3
2000	103	711	44	12.3	607	45	9.0	538	46	7.1	0.2	0.2	0.3
2000	138	734	43	12.1	628	45	8.8	557	46	7.0	0.2	0.2	0.3
2000	207	760	43	11.8	652	45	8.7	580	46	6.9	0.2	0.2	0.3
2250	69	693	44	12.5	589	46	9.1	520	47	7.1	0.2	0.2	0.3
2250	103	733	44	12.1	625	45	8.9	553	46	7.0	0.2	0.2	0.3
2250	138	758	43	11.9	648	45	8.7	574	46	6.9	0.2	0.2	0.3
2250	207	787	43	11.7	674	45	8.7	599	46	6.8	0.2	0.2	0.3
2500	69	711	44	12.4	603	46	9.0	533	47	7.0	0.2	0.2	0.3
2500	103	754	44	12.1	642	46	8.8	568	47	6.9	0.2	0.2	0.3
2500	138	781	44	11.9	666	45	8.7	590	46	6.9	0.2	0.2	0.3
2500	207	812	43	11.7	695	45	8.6	616	46	6.7	0.2	0.2	0.3

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - Triplexed - Single Circuit

25°C Earth Ambient

Condr Size	Shield Res	60 Rho 75 LF	60 Rho 100 LF	90 Rho 75 LF	90 Rho 100 LF	120 Rho 75 LF	120 Rho 100 LF
		Total Watts/ft					
90°C - Copper Conductor - Concentric Strand							
500	69	45.6	37.3	36.4	28.3	30.4	22.8
500	103	44.7	36.6	35.8	27.9	30.0	22.6
500	138	44.3	36.4	35.6	27.8	29.7	22.5
500	207	43.8	36.0	35.2	27.6	29.5	22.4
750	69	49.5	39.8	39.1	30.0	32.4	24.0
750	103	48.3	39.0	38.3	29.5	31.9	23.7
750	138	47.7	38.7	38.0	29.2	31.6	23.6
750	207	47.0	38.2	37.5	29.0	31.3	23.4
1000	69	53.2	42.1	41.6	31.4	34.4	25.0
1000	103	51.7	41.3	40.7	30.9	33.7	24.7
1000	138	50.9	40.7	40.3	30.6	33.4	24.5
1000	207	50.1	40.1	39.7	30.3	33.0	24.3
1250	69	56.0	43.9	43.5	32.5	35.7	25.7
1250	103	54.4	42.9	42.5	31.9	35.1	25.4
1250	138	53.4	42.3	42.0	31.6	34.6	25.2
1250	207	52.4	41.6	41.3	31.2	34.2	25.0
1500	69	58.5	45.4	45.2	33.3	37.0	26.4
1500	103	56.8	44.3	44.1	32.8	36.3	26.0
1500	138	55.7	43.6	43.5	32.4	35.8	25.8
1500	207	54.6	43.0	42.8	32.1	35.3	25.5
1750	69	60.6	46.6	46.6	34.2	38.0	26.9
1750	103	58.7	45.6	45.5	33.5	37.3	26.5
1750	138	57.6	44.9	44.8	33.2	36.8	26.3
1750	207	56.4	44.1	44.0	32.7	36.3	26.1
2000	69	62.5	47.8	47.9	34.8	39.0	27.4
2000	103	60.6	46.7	46.8	34.2	38.2	27.0
2000	138	59.4	45.9	46.0	33.8	37.7	26.8
2000	207	58.0	45.2	45.2	33.4	37.2	26.5
2250	69	64.1	48.7	49.0	35.4	39.8	27.8
2250	103	62.2	47.6	47.8	34.8	39.0	27.4
2250	138	60.9	46.9	47.1	34.4	38.6	27.2
2250	207	59.5	46.1	46.3	33.9	38.0	26.9
2500	69	65.7	49.7	50.0	36.0	40.6	28.2
2500	103	63.7	48.5	48.8	35.3	39.8	27.8
2500	138	62.4	47.8	48.1	34.9	39.3	27.6
2500	207	61.0	46.8	47.2	34.5	38.7	27.3

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - Triplexed - Single Circuit

25°C Earth Ambient

Condr Size	Shield Res	60 Rho 75 LF	60 Rho 100 LF	90 Rho 75 LF	90 Rho 100 LF	120 Rho 75 LF	120 Rho 100 LF
		Total Watts/ft					
80°C - Copper Conductor - Concentric Strand							
500	69	38.8	31.6	30.8	24.0	25.8	19.4
500	103	38.0	31.1	30.4	23.7	25.4	19.2
500	138	37.5	30.8	30.1	23.5	25.2	19.0
500	207	37.1	30.5	29.8	23.4	25.0	18.9
750	69	42.0	33.8	33.2	25.3	27.5	20.3
750	103	41.0	33.1	32.5	25.0	27.0	20.1
750	138	40.4	32.7	32.2	24.8	26.8	20.0
750	207	39.8	32.3	31.7	24.6	26.5	19.8
1000	69	45.2	35.8	35.3	26.6	29.1	21.2
1000	103	44.0	35.0	34.6	26.2	28.6	20.9
1000	138	43.2	34.5	34.1	25.9	28.3	20.8
1000	207	42.4	34.0	33.6	25.6	27.9	20.6
1250	69	47.6	37.3	36.9	27.6	30.3	21.8
1250	103	46.2	36.4	36.1	27.1	29.8	21.5
1250	138	45.4	35.9	35.6	26.8	29.4	21.4
1250	207	44.4	35.3	35.0	26.4	29.0	21.1
1500	69	49.7	38.6	38.3	28.3	31.3	22.3
1500	103	48.2	37.6	37.5	27.8	30.8	22.0
1500	138	47.3	37.1	36.9	27.5	30.4	21.9
1500	207	46.2	36.4	36.2	27.1	30.0	21.7
1750	69	51.5	39.6	39.5	28.9	32.3	22.8
1750	103	49.9	38.7	38.7	28.5	31.7	22.5
1750	138	48.9	38.1	38.0	28.2	31.2	22.3
1750	207	47.9	37.5	37.4	27.8	30.8	22.1
2000	69	53.1	40.5	40.6	29.5	33.0	23.2
2000	103	51.4	39.6	39.7	29.0	32.4	22.9
2000	138	50.4	39.0	39.0	28.7	32.0	22.7
2000	207	49.3	38.3	38.3	28.3	31.5	22.4
2250	69	54.6	41.4	41.6	30.1	33.8	23.6
2250	103	52.9	40.4	40.6	29.6	33.1	23.3
2250	138	51.7	39.8	39.9	29.2	32.7	23.0
2250	207	50.6	39.0	39.2	28.8	32.2	22.8
2500	69	55.8	42.1	42.5	30.5	34.4	23.9
2500	103	54.1	41.2	41.5	30.0	33.8	23.6
2500	138	53.0	40.5	40.8	29.6	33.3	23.3
2500	207	51.7	39.7	40.0	29.2	32.8	23.1

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - Triplexed - Single Circuit

25°C Earth Ambient

Condr Size	Shield Res	60 Rho 75 LF	60 Rho 100 LF	90 Rho 75 LF	90 Rho 100 LF	120 Rho 75 LF	120 Rho 100 LF
		Total Watts/ft					
65°C - Copper Conductor - Concentric Strand							
500	69	28.3	23.1	22.5	17.6	18.8	14.1
500	103	27.7	22.7	22.2	17.3	18.5	13.9
500	138	27.4	22.5	22.0	17.2	18.3	13.8
500	207	27.0	22.3	21.7	17.0	18.2	13.8
750	69	30.8	24.7	24.3	18.5	20.1	14.8
750	103	30.0	24.2	23.7	18.3	19.7	14.7
750	138	29.6	23.9	23.5	18.1	19.6	14.6
750	207	29.0	23.6	23.1	17.9	19.4	14.4
1000	69	33.1	26.2	25.9	19.5	21.3	15.5
1000	103	32.1	25.6	25.3	19.1	20.9	15.3
1000	138	31.6	25.2	24.9	18.9	20.6	15.1
1000	207	31.0	24.8	24.5	18.7	20.4	15.0
1250	69	34.9	27.3	27.0	20.1	22.2	15.9
1250	103	33.9	26.6	26.4	19.8	21.7	15.7
1250	138	33.2	26.2	26.0	19.6	21.4	15.6
1250	207	32.5	25.7	25.6	19.3	21.2	15.4
1500	69	36.4	28.2	28.1	20.7	22.9	16.4
1500	103	35.3	27.5	27.4	20.3	22.5	16.1
1500	138	34.6	27.1	26.9	20.1	22.2	16.0
1500	207	33.8	26.6	26.5	19.8	21.9	15.8
1750	69	37.7	29.0	29.0	21.2	23.5	16.6
1750	103	36.5	28.2	28.2	20.8	23.1	16.4
1750	138	35.8	27.8	27.7	20.5	22.8	16.3
1750	207	34.9	27.3	27.3	20.2	22.5	16.1
2000	69	38.9	29.7	29.7	21.5	24.1	16.9
2000	103	37.7	29.0	29.0	21.2	23.6	16.7
2000	138	36.9	28.5	28.5	20.9	23.4	16.5
2000	207	36.0	27.9	27.9	20.6	23.0	16.4
2250	69	39.9	30.2	30.4	22.0	24.7	17.2
2250	103	38.6	29.6	29.6	21.5	24.2	17.0
2250	138	37.9	29.1	29.2	21.3	23.8	16.8
2250	207	36.9	28.5	28.6	21.0	23.5	16.6
2500	69	40.9	30.8	31.1	22.3	25.1	17.4
2500	103	39.6	30.1	30.3	21.9	24.6	17.2
2500	138	38.7	29.6	29.8	21.6	24.3	17.0
2500	207	37.7	29.0	29.2	21.3	23.9	16.8

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - Triplexed - Single Circuit

25°C Earth Ambient

Condr Size	Shield Res	60 Rho 75 LF	60 Rho 100 LF	90 Rho 75 LF	90 Rho 100 LF	120 Rho 75 LF	120 Rho 100 LF
		Total Watts/ft					
50°C - Copper Conductor - Concentric Strand							
500	69	17.8	14.5	14.2	11.0	11.8	8.8
500	103	17.4	14.3	13.9	10.8	11.6	8.8
500	138	17.2	14.1	13.8	10.8	11.5	8.7
500	207	16.9	14.0	13.6	10.7	11.4	8.6
750	69	19.4	15.6	15.2	11.7	12.6	9.3
750	103	18.8	15.2	14.9	11.4	12.4	9.2
750	138	18.6	15.0	14.7	11.3	12.3	9.1
750	207	18.2	14.8	14.5	11.2	12.1	9.0
1000	69	20.8	16.5	16.3	12.2	13.3	9.7
1000	103	20.3	16.1	15.8	12.0	13.1	9.6
1000	138	19.9	15.8	15.6	11.9	12.9	9.5
1000	207	19.4	15.6	15.3	11.7	12.8	9.4
1250	69	22.0	17.1	17.0	12.6	13.9	10.0
1250	103	21.3	16.7	16.6	12.4	13.6	9.9
1250	138	20.8	16.5	16.3	12.2	13.4	9.8
1250	207	20.4	16.2	16.0	12.1	13.2	9.7
1500	69	22.9	17.7	17.6	13.0	14.4	10.2
1500	103	22.2	17.3	17.2	12.8	14.1	10.1
1500	138	21.7	17.0	16.9	12.6	13.9	10.0
1500	207	21.2	16.7	16.6	12.4	13.7	9.9
1750	69	23.7	18.2	18.1	13.3	14.8	10.4
1750	103	23.0	17.8	17.7	13.0	14.5	10.3
1750	138	22.5	17.5	17.4	12.9	14.3	10.2
1750	207	21.9	17.1	17.1	12.7	14.0	10.1
2000	69	24.5	18.7	18.7	13.5	15.1	10.6
2000	103	23.7	18.2	18.2	13.3	14.8	10.5
2000	138	23.2	17.9	17.9	13.1	14.6	10.4
2000	207	22.6	17.5	17.5	12.9	14.4	10.3
2250	69	25.1	19.0	19.1	13.8	15.4	10.8
2250	103	24.3	18.5	18.6	13.5	15.1	10.6
2250	138	23.8	18.2	18.3	13.4	14.9	10.5
2250	207	23.1	17.9	17.9	13.2	14.7	10.4
2500	69	25.7	19.4	19.5	14.0	15.8	10.9
2500	103	24.9	18.9	19.0	13.7	15.4	10.8
2500	138	24.3	18.6	18.7	13.5	15.2	10.7
2500	207	23.7	18.2	18.3	13.4	15.0	10.5

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - Triplexed - Single Circuit

25°C Earth Ambient

Condr Size	Sheath Res	OD	Wd	Rac	Qs	Ri	Rj	Re @ 90 Rho & loss factor 75%	100%
			90°C - Copper Conductor - Concentric Strand						
500	69	2.679	0.03	27.52	1.179	1.95	0.27	3.43	4.97
500	103	2.679	0.03	27.52	1.123	1.95	0.27	3.43	4.97
500	138	2.679	0.03	27.52	1.093	1.95	0.27	3.43	4.97
500	207	2.679	0.03	27.52	1.062	1.95	0.27	3.43	4.97
750	69	2.918	0.03	18.84	1.267	1.72	0.32	3.31	4.84
750	103	2.918	0.03	18.84	1.184	1.72	0.32	3.31	4.84
750	138	2.918	0.03	18.84	1.139	1.72	0.32	3.31	4.84
750	207	2.918	0.03	18.84	1.093	1.72	0.32	3.31	4.84
1000	69	3.107	0.03	14.64	1.343	1.56	0.30	3.23	4.76
1000	103	3.107	0.03	14.64	1.236	1.56	0.30	3.23	4.76
1000	138	3.107	0.03	14.64	1.178	1.56	0.30	3.23	4.76
1000	207	3.107	0.03	14.64	1.120	1.56	0.30	3.23	4.76
1250	69	3.240	0.04	12.22	1.407	1.45	0.28	3.17	4.70
1250	103	3.240	0.04	12.22	1.280	1.45	0.28	3.17	4.70
1250	138	3.240	0.04	12.22	1.211	1.45	0.28	3.17	4.70
1250	207	3.240	0.04	12.22	1.142	1.45	0.28	3.17	4.70
1500	69	3.360	0.04	10.68	1.463	1.36	0.27	3.11	4.65
1500	103	3.360	0.04	10.68	1.319	1.36	0.27	3.11	4.65
1500	138	3.360	0.04	10.68	1.240	1.36	0.27	3.11	4.65
1500	207	3.360	0.04	10.68	1.161	1.36	0.27	3.11	4.65
1750	69	3.470	0.04	9.61	1.511	1.29	0.26	3.07	4.60
1750	103	3.470	0.04	9.61	1.352	1.29	0.26	3.07	4.60
1750	138	3.470	0.04	9.61	1.265	1.29	0.26	3.07	4.60
1750	207	3.470	0.04	9.61	1.178	1.29	0.26	3.07	4.60
2000	69	3.573	0.04	8.81	1.555	1.22	0.26	3.03	4.56
2000	103	3.573	0.04	8.81	1.382	1.22	0.26	3.03	4.56
2000	138	3.573	0.04	8.81	1.288	1.22	0.26	3.03	4.56
2000	207	3.573	0.04	8.81	1.193	1.22	0.26	3.03	4.56
2250	69	3.668	0.04	8.26	1.588	1.17	0.25	2.99	4.52
2250	103	3.668	0.04	8.26	1.405	1.17	0.25	2.99	4.52
2250	138	3.668	0.04	8.26	1.305	1.17	0.25	2.99	4.52
2250	207	3.668	0.04	8.26	1.205	1.17	0.25	2.99	4.52
2500	69	3.759	0.04	7.79	1.622	1.13	0.24	2.96	4.49
2500	103	3.759	0.04	7.79	1.428	1.13	0.24	2.96	4.49
2500	138	3.759	0.04	7.79	1.323	1.13	0.24	2.96	4.49
2500	207	3.759	0.04	7.79	1.216	1.13	0.24	2.96	4.49

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1044

69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - Triplexed - Single Circuit

25°C Earth Ambient

Condr Size	Sheath Res	OD	Wd	Rac	Qs	Ri	Rj	Re @ 90 loss 75%	Rho & factor 100%
			80°C - Copper Conductor - Concentric Strand						
500	69	2.679	0.03	27.52	1.179	1.95	0.27	3.43	4.97
500	103	2.679	0.03	27.52	1.123	1.95	0.27	3.43	4.97
500	138	2.679	0.03	27.52	1.093	1.95	0.27	3.43	4.97
500	207	2.679	0.03	27.52	1.062	1.95	0.27	3.43	4.97
750	69	2.918	0.03	18.84	1.267	1.72	0.32	3.31	4.84
750	103	2.918	0.03	18.84	1.184	1.72	0.32	3.31	4.84
750	138	2.918	0.03	18.84	1.139	1.72	0.32	3.31	4.84
750	207	2.918	0.03	18.84	1.093	1.72	0.32	3.31	4.84
1000	69	3.107	0.03	14.64	1.343	1.56	0.30	3.23	4.76
1000	103	3.107	0.03	14.64	1.236	1.56	0.30	3.23	4.76
1000	138	3.107	0.03	14.64	1.178	1.56	0.30	3.23	4.76
1000	207	3.107	0.03	14.64	1.120	1.56	0.30	3.23	4.76
1250	69	3.240	0.04	12.22	1.407	1.45	0.28	3.17	4.70
1250	103	3.240	0.04	12.22	1.280	1.45	0.28	3.17	4.70
1250	138	3.240	0.04	12.22	1.211	1.45	0.28	3.17	4.70
1250	207	3.240	0.04	12.22	1.142	1.45	0.28	3.17	4.70
1500	69	3.360	0.04	10.68	1.463	1.36	0.27	3.11	4.65
1500	103	3.360	0.04	10.68	1.319	1.36	0.27	3.11	4.65
1500	138	3.360	0.04	10.68	1.240	1.36	0.27	3.11	4.65
1500	207	3.360	0.04	10.68	1.161	1.36	0.27	3.11	4.65
1750	69	3.470	0.04	9.61	1.511	1.29	0.26	3.07	4.60
1750	103	3.470	0.04	9.61	1.352	1.29	0.26	3.07	4.60
1750	138	3.470	0.04	9.61	1.265	1.29	0.26	3.07	4.60
1750	207	3.470	0.04	9.61	1.178	1.29	0.26	3.07	4.60
2000	69	3.573	0.04	8.81	1.555	1.22	0.26	3.03	4.56
2000	103	3.573	0.04	8.81	1.382	1.22	0.26	3.03	4.56
2000	138	3.573	0.04	8.81	1.288	1.22	0.26	3.03	4.56
2000	207	3.573	0.04	8.81	1.193	1.22	0.26	3.03	4.56
2250	69	3.668	0.04	8.26	1.588	1.17	0.25	2.99	4.52
2250	103	3.668	0.04	8.26	1.405	1.17	0.25	2.99	4.52
2250	138	3.668	0.04	8.26	1.305	1.17	0.25	2.99	4.52
2250	207	3.668	0.04	8.26	1.205	1.17	0.25	2.99	4.52
2500	69	3.759	0.04	7.79	1.622	1.13	0.24	2.96	4.49
2500	103	3.759	0.04	7.79	1.428	1.13	0.24	2.96	4.49
2500	138	3.759	0.04	7.79	1.323	1.13	0.24	2.96	4.49
2500	207	3.759	0.04	7.79	1.216	1.13	0.24	2.96	4.49

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - Triplexed - Single Circuit

25°C Earth Ambient

Condr Size	Sheath Res	OD	Wd	Rac	Qs	Ri	Rj	Re @ 90 loss 75%	Rho & factor 100%
			65°C - Copper Conductor - Concentric Strand						
500	69	2.679	0.03	27.52	1.179	1.95	0.27	3.43	4.97
500	103	2.679	0.03	27.52	1.123	1.95	0.27	3.43	4.97
500	138	2.679	0.03	27.52	1.093	1.95	0.27	3.43	4.97
500	207	2.679	0.03	27.52	1.062	1.95	0.27	3.43	4.97
750	69	2.918	0.03	18.84	1.267	1.72	0.32	3.31	4.84
750	103	2.918	0.03	18.84	1.184	1.72	0.32	3.31	4.84
750	138	2.918	0.03	18.84	1.139	1.72	0.32	3.31	4.84
750	207	2.918	0.03	18.84	1.093	1.72	0.32	3.31	4.84
1000	69	3.107	0.03	14.64	1.343	1.56	0.30	3.23	4.76
1000	103	3.107	0.03	14.64	1.236	1.56	0.30	3.23	4.76
1000	138	3.107	0.03	14.64	1.178	1.56	0.30	3.23	4.76
1000	207	3.107	0.03	14.64	1.120	1.56	0.30	3.23	4.76
1250	69	3.240	0.04	12.22	1.407	1.45	0.28	3.17	4.70
1250	103	3.240	0.04	12.22	1.280	1.45	0.28	3.17	4.70
1250	138	3.240	0.04	12.22	1.211	1.45	0.28	3.17	4.70
1250	207	3.240	0.04	12.22	1.142	1.45	0.28	3.17	4.70
1500	69	3.360	0.04	10.68	1.463	1.36	0.27	3.11	4.65
1500	103	3.360	0.04	10.68	1.319	1.36	0.27	3.11	4.65
1500	138	3.360	0.04	10.68	1.240	1.36	0.27	3.11	4.65
1500	207	3.360	0.04	10.68	1.161	1.36	0.27	3.11	4.65
1750	69	3.470	0.04	9.61	1.511	1.29	0.26	3.07	4.60
1750	103	3.470	0.04	9.61	1.352	1.29	0.26	3.07	4.60
1750	138	3.470	0.04	9.61	1.265	1.29	0.26	3.07	4.60
1750	207	3.470	0.04	9.61	1.178	1.29	0.26	3.07	4.60
2000	69	3.573	0.04	8.81	1.555	1.22	0.26	3.03	4.56
2000	103	3.573	0.04	8.81	1.382	1.22	0.26	3.03	4.56
2000	138	3.573	0.04	8.81	1.288	1.22	0.26	3.03	4.56
2000	207	3.573	0.04	8.81	1.193	1.22	0.26	3.03	4.56
2250	69	3.668	0.04	8.26	1.588	1.17	0.25	2.99	4.52
2250	103	3.668	0.04	8.26	1.405	1.17	0.25	2.99	4.52
2250	138	3.668	0.04	8.26	1.305	1.17	0.25	2.99	4.52
2250	207	3.668	0.04	8.26	1.205	1.17	0.25	2.99	4.52
2500	69	3.759	0.04	7.79	1.622	1.13	0.24	2.96	4.49
2500	103	3.759	0.04	7.79	1.428	1.13	0.24	2.96	4.49
2500	138	3.759	0.04	7.79	1.323	1.13	0.24	2.96	4.49
2500	207	3.759	0.04	7.79	1.216	1.13	0.24	2.96	4.49

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - Triplexed - Single Circuit

25°C Earth Ambient

Condr Size	Sheath Res	OD	Wd	Rac	Qs	Ri	Rj	Re @ 90 Rho & loss factor 75%	100%
			50°C - Copper Conductor - Concentric Strand						
500	69	2.679	0.03	27.52	1.179	1.95	0.27	3.43	4.97
500	103	2.679	0.03	27.52	1.123	1.95	0.27	3.43	4.97
500	138	2.679	0.03	27.52	1.093	1.95	0.27	3.43	4.97
500	207	2.679	0.03	27.52	1.062	1.95	0.27	3.43	4.97
750	69	2.918	0.03	18.84	1.267	1.72	0.32	3.31	4.84
750	103	2.918	0.03	18.84	1.184	1.72	0.32	3.31	4.84
750	138	2.918	0.03	18.84	1.139	1.72	0.32	3.31	4.84
750	207	2.918	0.03	18.84	1.093	1.72	0.32	3.31	4.84
1000	69	3.107	0.03	14.64	1.343	1.56	0.30	3.23	4.76
1000	103	3.107	0.03	14.64	1.236	1.56	0.30	3.23	4.76
1000	138	3.107	0.03	14.64	1.178	1.56	0.30	3.23	4.76
1000	207	3.107	0.03	14.64	1.120	1.56	0.30	3.23	4.76
1250	69	3.240	0.04	12.22	1.407	1.45	0.28	3.17	4.70
1250	103	3.240	0.04	12.22	1.280	1.45	0.28	3.17	4.70
1250	138	3.240	0.04	12.22	1.211	1.45	0.28	3.17	4.70
1250	207	3.240	0.04	12.22	1.142	1.45	0.28	3.17	4.70
1500	69	3.360	0.04	10.68	1.463	1.36	0.27	3.11	4.65
1500	103	3.360	0.04	10.68	1.319	1.36	0.27	3.11	4.65
1500	138	3.360	0.04	10.68	1.240	1.36	0.27	3.11	4.65
1500	207	3.360	0.04	10.68	1.161	1.36	0.27	3.11	4.65
1750	69	3.470	0.04	9.61	1.511	1.29	0.26	3.07	4.60
1750	103	3.470	0.04	9.61	1.352	1.29	0.26	3.07	4.60
1750	138	3.470	0.04	9.61	1.265	1.29	0.26	3.07	4.60
1750	207	3.470	0.04	9.61	1.178	1.29	0.26	3.07	4.60
2000	69	3.573	0.04	8.81	1.555	1.22	0.26	3.03	4.56
2000	103	3.573	0.04	8.81	1.382	1.22	0.26	3.03	4.56
2000	138	3.573	0.04	8.81	1.288	1.22	0.26	3.03	4.56
2000	207	3.573	0.04	8.81	1.193	1.22	0.26	3.03	4.56
2250	69	3.668	0.04	8.26	1.588	1.17	0.25	2.99	4.52
2250	103	3.668	0.04	8.26	1.405	1.17	0.25	2.99	4.52
2250	138	3.668	0.04	8.26	1.305	1.17	0.25	2.99	4.52
2250	207	3.668	0.04	8.26	1.205	1.17	0.25	2.99	4.52
2500	69	3.759	0.04	7.79	1.622	1.13	0.24	2.96	4.49
2500	103	3.759	0.04	7.79	1.428	1.13	0.24	2.96	4.49
2500	138	3.759	0.04	7.79	1.323	1.13	0.24	2.96	4.49
2500	207	3.759	0.04	7.79	1.216	1.13	0.24	2.96	4.49

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - Triplexed - Double Circuit

25°C Earth Ambient

Condr Size	Shield Res	60 Rho Amps	60 Rho Interface Temp °C	60 Rho Flux w/ft²	90 Rho Amps	90 Rho Interface Temp °C	90 Rho Flux w/ft²	120 Rho Amps	120 Rho Interface Temp °C	120 Rho Flux w/ft²	delta Td for .0010 pf & Rho 60	90	120
						75% LF							
						90°C - Copper Conductor - Concentric Strand							
500	69	612	67	32.9	536	72	25.2	483	75	20.5	0.2	0.2	0.3
500	103	623	66	32.3	546	72	25.0	493	75	20.3	0.2	0.2	0.3
500	138	628	66	32.1	552	71	24.8	498	75	20.2	0.2	0.2	0.3
500	207	634	65	31.8	558	71	24.6	504	74	20.1	0.2	0.2	0.3
750	69	738	68	32.2	643	74	24.5	578	77	19.8	0.2	0.3	0.3
750	103	756	68	31.6	660	73	24.2	594	76	19.5	0.2	0.3	0.3
750	138	766	67	31.3	670	72	23.9	604	76	19.5	0.2	0.3	0.3
750	207	777	67	30.8	681	72	23.7	614	75	19.3	0.2	0.3	0.3
1000	69	836	70	32.0	725	75	24.1	650	78	19.4	0.2	0.3	0.3
1000	103	862	69	31.3	750	74	23.7	673	77	19.1	0.2	0.3	0.3
1000	138	877	69	30.9	764	74	23.5	687	77	19.0	0.2	0.3	0.3
1000	207	894	68	30.5	780	73	23.2	702	76	18.8	0.2	0.3	0.3
1250	69	912	71	31.9	788	76	23.9	705	79	19.2	0.2	0.3	0.4
1250	103	945	70	31.2	819	75	23.5	734	78	18.9	0.2	0.3	0.4
1250	138	965	70	30.8	838	75	23.3	752	78	18.7	0.2	0.3	0.4
1250	207	986	69	30.3	858	74	23.0	771	77	18.6	0.2	0.3	0.4
1500	69	972	72	31.8	838	77	23.6	749	80	18.9	0.2	0.3	0.4
1500	103	1012	71	31.1	875	76	23.3	783	79	18.6	0.2	0.3	0.4
1500	138	1036	71	30.7	898	75	23.0	804	78	18.5	0.2	0.3	0.4
1500	207	1062	70	30.2	922	75	22.7	827	78	18.3	0.2	0.3	0.4
1750	69	1022	73	31.6	879	78	23.4	784	80	18.7	0.2	0.3	0.4
1750	103	1068	72	30.9	921	77	23.0	824	79	18.5	0.2	0.3	0.4
1750	138	1096	71	30.5	947	76	22.8	847	79	18.2	0.2	0.3	0.4
1750	207	1126	71	30.0	975	75	22.5	874	78	18.1	0.2	0.3	0.4
2000	69	1065	74	31.5	914	78	23.2	815	81	18.5	0.2	0.3	0.4
2000	103	1116	73	30.7	961	77	22.8	858	80	18.2	0.2	0.3	0.4
2000	138	1148	72	30.2	990	77	22.6	885	79	18.1	0.2	0.3	0.4
2000	207	1182	71	29.8	1022	76	22.3	915	79	17.9	0.2	0.3	0.4
2250	69	1098	74	31.2	941	79	23.0	838	81	18.2	0.2	0.3	0.4
2250	103	1154	73	30.5	992	78	22.6	885	80	18.0	0.2	0.3	0.4
2250	138	1188	73	30.1	1024	77	22.4	914	80	17.8	0.2	0.3	0.4
2250	207	1226	72	29.5	1059	76	22.0	947	79	17.7	0.2	0.3	0.4
2500	69	1129	75	31.1	967	79	22.8	860	81	18.1	0.2	0.3	0.4
2500	103	1190	74	30.4	1022	78	22.4	911	81	17.8	0.2	0.3	0.4
2500	138	1227	73	29.8	1056	77	22.2	942	80	17.7	0.2	0.3	0.4
2500	207	1268	72	29.3	1094	77	21.8	977	79	17.5	0.2	0.3	0.4

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - Triplexed - Double Circuit

25°C Earth Ambient

Condr Size	Shield Res	60 Rho Amps	60 Rho Interface Temp °C	60 Rho Flux w/ft²	90 Rho Amps	90 Rho Interface Temp °C	90 Rho Flux w/ft²	120 Rho Amps	120 Rho Interface Temp °C	120 Rho Flux w/ft²	delta Td for .0010 pf & Rho 60	90	120
						100% LF							
						90°C - Copper Conductor - Concentric Strand							
500	69	537	72	25.2	460	77	18.6	409	80	14.6	0.2	0.2	0.3
500	103	547	71	25.0	469	76	18.4	417	79	14.6	0.2	0.2	0.3
500	138	552	71	24.8	474	76	18.3	422	79	14.6	0.2	0.2	0.3
500	207	558	71	24.6	480	76	18.2	427	79	14.5	0.2	0.2	0.3
750	69	642	74	24.4	547	78	17.7	485	81	13.9	0.2	0.3	0.3
750	103	659	73	24.0	563	78	17.6	500	80	13.9	0.2	0.3	0.3
750	138	669	73	23.8	572	77	17.5	508	80	13.8	0.2	0.3	0.3
750	207	680	72	23.6	582	77	17.3	517	80	13.7	0.2	0.3	0.3
1000	69	722	75	23.9	613	79	17.3	542	82	13.5	0.2	0.3	0.3
1000	103	746	74	23.5	635	79	17.0	562	81	13.4	0.2	0.3	0.3
1000	138	761	74	23.2	648	78	17.0	574	81	13.3	0.2	0.3	0.3
1000	207	776	73	23.0	663	78	16.8	588	80	13.2	0.2	0.3	0.3
1250	69	783	76	23.6	663	80	16.9	585	82	13.2	0.2	0.3	0.4
1250	103	814	75	23.2	691	79	16.7	611	82	13.1	0.2	0.3	0.4
1250	138	833	75	23.0	708	79	16.6	626	81	13.0	0.2	0.3	0.4
1250	207	853	74	22.7	726	79	16.5	643	81	12.9	0.2	0.3	0.4
1500	69	832	77	23.3	703	81	16.6	619	83	13.0	0.2	0.3	0.4
1500	103	869	76	22.9	736	80	16.5	649	82	12.8	0.2	0.3	0.4
1500	138	891	76	22.6	756	80	16.3	667	82	12.8	0.2	0.3	0.4
1500	207	915	75	22.4	777	79	16.2	687	82	12.7	0.2	0.3	0.4
1750	69	871	78	23.0	734	81	16.4	646	83	12.7	0.2	0.3	0.4
1750	103	913	77	22.6	772	81	16.2	680	83	12.6	0.2	0.3	0.4
1750	138	939	76	22.4	794	80	16.0	701	82	12.5	0.2	0.3	0.4
1750	207	967	76	22.1	820	80	15.9	724	82	12.4	0.2	0.3	0.4
2000	69	905	78	22.7	761	82	16.1	670	84	12.5	0.2	0.3	0.4
2000	103	951	77	22.4	803	81	15.9	707	83	12.4	0.2	0.3	0.4
2000	138	980	77	22.1	828	81	15.8	730	83	12.3	0.2	0.3	0.4
2000	207	1012	76	21.8	856	80	15.7	756	82	12.2	0.2	0.3	0.4
2250	69	930	79	22.4	782	82	15.9	687	84	12.3	0.2	0.3	0.4
2250	103	981	78	22.0	826	81	15.7	727	83	12.2	0.2	0.3	0.4
2250	138	1012	77	21.9	854	81	15.6	752	83	12.1	0.2	0.3	0.4
2250	207	1047	77	21.6	885	81	15.4	780	83	12.0	0.2	0.3	0.4
2500	69	954	79	22.2	801	82	15.7	704	84	12.1	0.2	0.3	0.4
2500	103	1009	78	21.8	849	82	15.5	747	84	12.0	0.2	0.3	0.4
2500	138	1042	78	21.6	879	81	15.4	773	83	11.9	0.2	0.3	0.4
2500	207	1080	77	21.3	912	81	15.2	804	83	11.8	0.2	0.3	0.4

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - Triplexed - Double Circuit

25°C Earth Ambient

Condr Size	Shield Res	60 Rho Amps	60 Rho Interface Temp °C	60 Rho Flux w/ft²	90 Rho Amps	90 Rho Interface Temp °C	90 Rho Flux w/ft²	120 Rho Amps	120 Rho Interface Temp °C	120 Rho Flux w/ft²	delta Td for .0010 pf & Rho 60	90	120
						75% LF							
						80°C - Copper Conductor - Concentric Strand							
500	69	570	60	27.9	499	65	21.4	450	68	17.4	0.2	0.2	0.3
500	103	580	60	27.5	509	64	21.1	459	67	17.2	0.2	0.2	0.3
500	138	586	59	27.2	514	64	21.0	464	67	17.2	0.2	0.2	0.3
500	207	592	59	27.0	520	64	20.8	470	67	17.0	0.2	0.2	0.3
750	69	685	62	27.3	597	66	20.8	536	69	16.7	0.2	0.3	0.3
750	103	703	61	26.8	614	66	20.5	552	68	16.6	0.2	0.3	0.3
750	138	713	61	26.5	623	65	20.3	562	68	16.5	0.2	0.3	0.3
750	207	724	60	26.1	634	65	20.0	571	68	16.3	0.2	0.3	0.3
1000	69	775	63	27.1	672	67	20.5	602	70	16.4	0.2	0.3	0.3
1000	103	800	62	26.6	696	67	20.1	624	69	16.2	0.2	0.3	0.3
1000	138	815	62	26.2	710	66	19.9	638	69	16.1	0.2	0.3	0.3
1000	207	831	61	25.9	725	66	19.7	652	69	16.0	0.2	0.3	0.3
1250	69	844	64	27.1	729	68	20.3	652	71	16.2	0.2	0.3	0.4
1250	103	876	63	26.5	759	68	19.9	680	70	16.0	0.2	0.3	0.4
1250	138	895	63	26.1	777	67	19.7	697	70	15.9	0.2	0.3	0.4
1250	207	916	62	25.7	797	67	19.5	715	69	15.7	0.2	0.3	0.4
1500	69	899	65	27.0	774	69	20.1	691	71	16.0	0.2	0.3	0.4
1500	103	937	64	26.4	810	68	19.7	724	71	15.8	0.2	0.3	0.4
1500	138	960	64	26.0	831	68	19.5	745	70	15.7	0.2	0.3	0.4
1500	207	985	63	25.6	855	67	19.3	767	70	15.5	0.2	0.3	0.4
1750	69	943	66	26.8	811	70	19.9	723	72	15.8	0.2	0.3	0.4
1750	103	987	65	26.2	851	69	19.6	761	71	15.6	0.2	0.3	0.4
1750	138	1014	64	25.9	876	68	19.3	784	71	15.5	0.2	0.3	0.4
1750	207	1043	64	25.4	904	68	19.1	809	70	15.3	0.2	0.3	0.4
2000	69	982	67	26.7	843	70	19.7	751	72	15.6	0.2	0.3	0.4
2000	103	1031	66	26.1	888	69	19.3	792	71	15.4	0.2	0.3	0.4
2000	138	1061	65	25.7	915	69	19.1	818	71	15.3	0.2	0.3	0.4
2000	207	1094	64	25.2	946	68	18.9	846	71	15.1	0.2	0.3	0.4
2250	69	1012	67	26.5	867	70	19.5	772	72	15.5	0.2	0.3	0.4
2250	103	1065	66	25.9	916	70	19.2	816	72	15.2	0.2	0.3	0.4
2250	138	1098	65	25.5	946	69	19.0	844	71	15.1	0.2	0.3	0.4
2250	207	1134	65	25.1	979	69	18.7	875	71	15.0	0.2	0.3	0.4
2500	69	1040	67	26.3	890	71	19.3	792	73	15.3	0.2	0.3	0.4
2500	103	1097	66	25.7	942	70	19.0	839	72	15.1	0.2	0.3	0.4
2500	138	1133	66	25.4	975	70	18.8	869	72	14.9	0.2	0.3	0.4
2500	207	1173	65	24.8	1011	69	18.5	903	71	14.8	0.2	0.3	0.4

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - Triplexed - Double Circuit

25°C Earth Ambient

Condr Size	Shield Res	60 Rho Amps	60 Rho Interface Temp °C	60 Rho Flux w/ft²	90 Rho Amps	90 Rho Interface Temp °C	90 Rho Flux w/ft²	120 Rho Amps	120 Rho Interface Temp °C	120 Rho Flux w/ft²	delta Td for .0010 pf & Rho 60	90	120
						100% LF							
						80°C - Copper Conductor - Concentric Strand							
500	69	499	65	21.5	428	69	15.7	380	71	12.4	0.2	0.2	0.3
500	103	509	64	21.2	437	69	15.6	388	71	12.3	0.2	0.2	0.3
500	138	515	64	21.0	442	68	15.5	393	71	12.3	0.2	0.2	0.3
500	207	520	64	20.8	447	68	15.5	398	71	12.2	0.2	0.2	0.3
750	69	596	66	20.7	508	70	15.0	450	72	11.8	0.2	0.3	0.3
750	103	612	66	20.4	523	70	14.8	464	72	11.7	0.2	0.3	0.3
750	138	622	65	20.2	532	69	14.8	472	72	11.6	0.2	0.3	0.3
750	207	633	65	20.0	542	69	14.7	481	71	11.6	0.2	0.3	0.3
1000	69	669	68	20.2	568	71	14.6	502	73	11.5	0.2	0.3	0.3
1000	103	693	67	19.9	589	70	14.4	521	73	11.3	0.2	0.3	0.3
1000	138	707	66	19.8	602	70	14.3	533	72	11.2	0.2	0.3	0.3
1000	207	722	66	19.5	616	70	14.3	546	72	11.2	0.2	0.3	0.3
1250	69	725	68	20.0	613	72	14.3	541	74	11.2	0.2	0.3	0.4
1250	103	754	68	19.7	640	71	14.2	565	73	11.1	0.2	0.3	0.4
1250	138	772	67	19.5	656	71	14.0	580	73	11.0	0.2	0.3	0.4
1250	207	792	67	19.2	674	70	14.0	596	73	10.9	0.2	0.3	0.4
1500	69	768	69	19.8	649	72	14.1	571	74	11.0	0.2	0.3	0.4
1500	103	804	68	19.4	680	72	14.0	600	74	10.9	0.2	0.3	0.4
1500	138	825	68	19.2	699	71	13.8	618	73	10.8	0.2	0.3	0.4
1500	207	849	67	19.0	721	71	13.7	637	73	10.7	0.2	0.3	0.4
1750	69	804	70	19.5	677	73	13.9	596	74	10.8	0.2	0.3	0.4
1750	103	844	69	19.2	713	72	13.7	628	74	10.7	0.2	0.3	0.4
1750	138	868	69	19.0	735	72	13.6	648	74	10.6	0.2	0.3	0.4
1750	207	896	68	18.7	759	71	13.5	670	73	10.5	0.2	0.3	0.4
2000	69	834	70	19.3	701	73	13.7	617	75	10.6	0.2	0.3	0.4
2000	103	878	70	18.9	741	73	13.5	652	74	10.5	0.2	0.3	0.4
2000	138	906	69	18.7	765	72	13.4	674	74	10.4	0.2	0.3	0.4
2000	207	937	68	18.5	793	72	13.3	699	74	10.4	0.2	0.3	0.4
2250	69	857	71	19.0	720	73	13.5	633	75	10.4	0.2	0.3	0.4
2250	103	905	70	18.7	762	73	13.3	671	74	10.3	0.2	0.3	0.4
2250	138	935	69	18.5	789	72	13.2	695	74	10.2	0.2	0.3	0.4
2250	207	968	69	18.2	818	72	13.1	721	74	10.2	0.2	0.3	0.4
2500	69	879	71	18.8	737	74	13.3	647	75	10.2	0.2	0.3	0.4
2500	103	930	70	18.5	782	73	13.1	688	75	10.2	0.2	0.3	0.4
2500	138	962	70	18.3	811	73	13.0	714	74	10.1	0.2	0.3	0.4
2500	207	999	69	18.1	843	72	12.9	743	74	10.1	0.2	0.3	0.4

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - Triplexed - Double Circuit

25°C Earth Ambient

Condr Size	Shield Res	60 Rho Amps	60 Rho Interface Temp °C	60 Rho Flux w/ft²	90 Rho Amps	90 Rho Interface Temp °C	90 Rho Flux w/ft²	120 Rho Amps	120 Rho Interface Temp °C	120 Rho Flux w/ft²	delta Td for .0010 pf & Rho 60	90	120
						75% LF							
						65°C - Copper Conductor - Concentric Strand							
500	69	495	51	20.4	433	54	15.6	390	56	12.7	0.2	0.2	0.3
500	103	504	50	20.0	442	54	15.4	398	56	12.6	0.2	0.2	0.3
500	138	509	50	19.9	447	54	15.3	403	56	12.5	0.2	0.2	0.3
500	207	515	50	19.6	452	53	15.2	409	56	12.4	0.2	0.2	0.3
750	69	592	52	20.0	516	55	15.2	463	57	12.2	0.2	0.3	0.3
750	103	609	51	19.5	531	55	14.9	478	57	12.1	0.2	0.3	0.3
750	138	619	51	19.3	540	54	14.8	487	56	12.0	0.2	0.3	0.3
750	207	629	51	19.1	550	54	14.6	496	56	11.9	0.2	0.3	0.3
1000	69	668	53	19.8	579	56	15.0	518	58	12.0	0.2	0.3	0.3
1000	103	691	52	19.4	600	55	14.6	539	57	11.9	0.2	0.3	0.3
1000	138	705	52	19.1	614	55	14.5	551	57	11.7	0.2	0.3	0.3
1000	207	720	52	18.8	628	55	14.3	564	57	11.6	0.2	0.3	0.3
1250	69	726	54	19.8	626	57	14.8	560	58	11.8	0.2	0.3	0.4
1250	103	755	53	19.4	654	56	14.6	585	58	11.7	0.2	0.3	0.4
1250	138	773	53	19.1	670	56	14.3	601	58	11.6	0.2	0.3	0.4
1250	207	792	52	18.7	689	55	14.2	618	57	11.4	0.2	0.3	0.4
1500	69	771	54	19.8	664	57	14.7	592	59	11.7	0.2	0.3	0.4
1500	103	806	54	19.3	696	57	14.4	622	58	11.5	0.2	0.3	0.4
1500	138	827	53	19.0	716	56	14.3	641	58	11.4	0.2	0.3	0.4
1500	207	851	53	18.6	738	56	14.0	661	58	11.3	0.2	0.3	0.4
1750	69	809	55	19.6	695	58	14.5	619	59	11.5	0.2	0.3	0.4
1750	103	849	54	19.1	731	57	14.2	653	59	11.4	0.2	0.3	0.4
1750	138	873	54	18.9	754	57	14.1	674	58	11.2	0.2	0.3	0.4
1750	207	900	53	18.5	779	56	13.9	697	58	11.2	0.2	0.3	0.4
2000	69	840	55	19.5	720	58	14.3	641	59	11.4	0.2	0.3	0.4
2000	103	884	55	19.1	760	57	14.1	678	59	11.2	0.2	0.3	0.4
2000	138	912	54	18.7	786	57	13.9	701	59	11.1	0.2	0.3	0.4
2000	207	942	54	18.4	814	57	13.7	728	58	11.0	0.2	0.3	0.4
2250	69	865	56	19.4	740	58	14.2	658	60	11.3	0.2	0.3	0.4
2250	103	913	55	18.9	784	58	14.0	698	59	11.1	0.2	0.3	0.4
2250	138	942	55	18.6	811	57	13.8	723	59	11.0	0.2	0.3	0.4
2250	207	976	54	18.2	842	57	13.6	752	58	10.9	0.2	0.3	0.4
2500	69	888	56	19.2	759	58	14.1	675	60	11.1	0.2	0.3	0.4
2500	103	939	55	18.8	806	58	13.8	717	59	11.0	0.2	0.3	0.4
2500	138	972	55	18.5	835	57	13.7	744	59	10.9	0.2	0.3	0.4
2500	207	1008	54	18.1	868	57	13.5	775	59	10.8	0.2	0.3	0.4

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - Triplexed - Double Circuit

25°C Earth Ambient

Condr Size	Shield Res	60 Rho Amps	60 Rho Interface Temp °C	60 Rho Flux w/ft²	90 Rho Amps	90 Rho Interface Temp °C	90 Rho Flux w/ft²	120 Rho Amps	120 Rho Interface Temp °C	120 Rho Flux w/ft²	delta Td for .0010 pf & Rho 60	90	120
						100% LF							
						65°C - Copper Conductor - Concentric Strand							
500	69	433	54	15.6	371	57	11.5	329	59	9.1	0.2	0.2	0.3
500	103	442	54	15.5	379	57	11.4	337	59	9.0	0.2	0.2	0.3
500	138	447	54	15.4	384	57	11.3	341	58	9.0	0.2	0.2	0.3
500	207	453	53	15.2	389	56	11.2	346	58	8.9	0.2	0.2	0.3
750	69	515	55	15.1	438	58	11.0	388	59	8.7	0.2	0.3	0.3
750	103	530	55	14.8	453	58	10.9	401	59	8.6	0.2	0.3	0.3
750	138	540	54	14.8	461	57	10.8	409	59	8.5	0.2	0.3	0.3
750	207	549	54	14.6	470	57	10.7	417	59	8.4	0.2	0.3	0.3
1000	69	576	56	14.8	489	59	10.7	432	60	8.4	0.2	0.3	0.3
1000	103	598	56	14.6	508	58	10.5	450	60	8.3	0.2	0.3	0.3
1000	138	611	55	14.4	520	58	10.5	461	59	8.2	0.2	0.3	0.3
1000	207	625	55	14.3	533	58	10.4	472	59	8.1	0.2	0.3	0.3
1250	69	623	57	14.6	526	59	10.5	464	60	8.2	0.2	0.3	0.4
1250	103	650	56	14.3	551	59	10.3	486	60	8.1	0.2	0.3	0.4
1250	138	666	56	14.2	566	58	10.3	500	60	8.0	0.2	0.3	0.4
1250	207	685	55	14.0	582	58	10.2	515	60	7.9	0.2	0.3	0.4
1500	69	659	57	14.4	556	60	10.3	489	61	8.0	0.2	0.3	0.4
1500	103	691	57	14.2	584	59	10.2	515	60	8.0	0.2	0.3	0.4
1500	138	711	56	14.0	602	59	10.1	531	60	7.9	0.2	0.3	0.4
1500	207	732	56	13.8	621	59	10.0	549	60	7.8	0.2	0.3	0.4
1750	69	689	58	14.2	580	60	10.1	510	61	7.8	0.2	0.3	0.4
1750	103	725	57	14.0	612	59	10.0	539	61	7.8	0.2	0.3	0.4
1750	138	747	57	13.9	632	59	9.9	557	60	7.7	0.2	0.3	0.4
1750	207	773	56	13.7	654	59	9.8	577	60	7.7	0.2	0.3	0.4
2000	69	713	58	14.1	599	60	10.0	526	61	7.7	0.2	0.3	0.4
2000	103	753	58	13.8	634	60	9.8	558	61	7.6	0.2	0.3	0.4
2000	138	778	57	13.7	657	59	9.8	578	61	7.6	0.2	0.3	0.4
2000	207	806	57	13.5	682	59	9.7	601	60	7.5	0.2	0.3	0.4
2250	69	732	58	13.9	614	60	9.8	539	61	7.6	0.2	0.3	0.4
2250	103	775	58	13.6	652	60	9.7	573	61	7.5	0.2	0.3	0.4
2250	138	802	57	13.5	676	60	9.6	595	61	7.5	0.2	0.3	0.4
2250	207	833	57	13.3	703	59	9.5	619	61	7.4	0.2	0.3	0.4
2500	69	750	59	13.8	628	61	9.7	551	62	7.5	0.2	0.3	0.4
2500	103	796	58	13.5	669	60	9.5	588	61	7.4	0.2	0.3	0.4
2500	138	825	58	13.3	694	60	9.5	611	61	7.4	0.2	0.3	0.4
2500	207	858	57	13.2	724	59	9.4	637	61	7.3	0.2	0.3	0.4

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - Triplexed - Double Circuit

25°C Earth Ambient

Condr Size	Shield Res	60 Rho Amps	60 Rho Interface Temp °C	60 Rho Flux w/ft²	90 Rho Amps	90 Rho Interface Temp °C	90 Rho Flux w/ft²	120 Rho Amps	120 Rho Interface Temp °C	120 Rho Flux w/ft²	delta Td for .0010 pf & Rho 60	90	120
						75% LF							
						50°C - Copper Conductor - Concentric Strand							
500	69	398	41	12.8	348	43	9.8	313	45	7.9	0.2	0.2	0.3
500	103	406	41	12.6	355	43	9.6	320	44	7.8	0.2	0.2	0.3
500	138	411	41	12.4	360	43	9.6	325	44	7.8	0.2	0.2	0.3
500	207	416	41	12.3	365	43	9.5	329	44	7.7	0.2	0.2	0.3
750	69	475	42	12.5	413	44	9.5	370	45	7.7	0.2	0.3	0.3
750	103	489	42	12.3	426	44	9.3	383	45	7.6	0.2	0.3	0.3
750	138	497	41	12.1	434	43	9.2	390	45	7.5	0.2	0.3	0.3
750	207	506	41	12.0	443	43	9.2	399	45	7.4	0.2	0.3	0.3
1000	69	533	43	12.5	461	45	9.4	413	46	7.5	0.2	0.3	0.3
1000	103	553	42	12.2	480	44	9.2	430	45	7.4	0.2	0.3	0.3
1000	138	565	42	12.0	491	44	9.1	441	45	7.4	0.2	0.3	0.3
1000	207	578	42	11.8	504	44	9.0	452	45	7.3	0.2	0.3	0.3
1250	69	578	43	12.5	498	45	9.3	445	46	7.4	0.2	0.3	0.4
1250	103	603	43	12.2	521	45	9.1	466	46	7.3	0.2	0.3	0.4
1250	138	618	42	12.0	535	44	9.0	479	45	7.2	0.2	0.3	0.4
1250	207	635	42	11.7	551	44	8.9	494	45	7.1	0.2	0.3	0.4
1500	69	613	44	12.4	527	45	9.2	469	46	7.3	0.2	0.3	0.4
1500	103	642	43	12.1	553	45	9.0	494	46	7.2	0.2	0.3	0.4
1500	138	660	43	11.9	570	45	8.9	510	46	7.2	0.2	0.3	0.4
1500	207	680	42	11.7	589	44	8.8	527	46	7.1	0.2	0.3	0.4
1750	69	641	44	12.3	550	45	9.1	490	46	7.2	0.2	0.3	0.4
1750	103	675	43	12.0	581	45	8.9	518	46	7.1	0.2	0.3	0.4
1750	138	696	43	11.9	600	45	8.8	535	46	7.1	0.2	0.3	0.4
1750	207	719	43	11.6	621	45	8.7	555	46	6.9	0.2	0.3	0.4
2000	69	665	44	12.3	569	46	9.0	506	47	7.1	0.2	0.3	0.4
2000	103	702	44	11.9	603	45	8.8	537	46	7.0	0.2	0.3	0.4
2000	138	725	43	11.8	624	45	8.8	557	46	6.9	0.2	0.3	0.4
2000	207	751	43	11.5	648	45	8.6	579	46	6.9	0.2	0.3	0.4
2250	69	684	44	12.1	585	46	8.9	519	47	7.0	0.2	0.3	0.4
2250	103	724	44	11.9	621	46	8.7	552	46	7.0	0.2	0.3	0.4
2250	138	749	44	11.7	643	45	8.7	573	46	6.9	0.2	0.3	0.4
2250	207	777	43	11.4	669	45	8.5	597	46	6.8	0.2	0.3	0.4
2500	69	702	45	12.1	599	46	8.8	532	47	7.0	0.2	0.3	0.4
2500	103	744	44	11.8	637	46	8.6	567	47	6.9	0.2	0.3	0.4
2500	138	771	44	11.6	662	45	8.6	589	46	6.8	0.2	0.3	0.4
2500	207	802	43	11.4	690	45	8.5	615	46	6.7	0.2	0.3	0.4

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - Triplexed - Double Circuit

25°C Earth Ambient

Condr Size	Shield Res	60 Rho Amps	60 Rho Interface Temp °C	60 Rho Flux w/ft²	90 Rho Amps	90 Rho Interface Temp °C	90 Rho Flux w/ft²	120 Rho Amps	120 Rho Interface Temp °C	120 Rho Flux w/ft²	delta Td for .0010 pf & Rho 60	90	120
						100% LF							
						50°C - Copper Conductor - Concentric Strand							
500	69	348	43	9.8	298	45	7.2	264	46	5.7	0.2	0.2	0.3
500	103	356	43	9.7	305	45	7.1	271	46	5.7	0.2	0.2	0.3
500	138	361	43	9.6	309	45	7.1	275	46	5.6	0.2	0.2	0.3
500	207	366	43	9.5	314	45	7.0	279	46	5.6	0.2	0.2	0.3
750	69	412	44	9.5	351	46	6.8	310	47	5.4	0.2	0.3	0.3
750	103	425	44	9.3	363	45	6.8	321	46	5.4	0.2	0.3	0.3
750	138	434	43	9.2	370	45	6.8	328	46	5.4	0.2	0.3	0.3
750	207	442	43	9.2	378	45	6.7	335	46	5.3	0.2	0.3	0.3
1000	69	460	45	9.3	389	46	6.7	344	47	5.2	0.2	0.3	0.3
1000	103	478	44	9.1	406	46	6.6	359	47	5.2	0.2	0.3	0.3
1000	138	490	44	9.1	416	46	6.6	368	47	5.1	0.2	0.3	0.3
1000	207	502	44	8.9	428	45	6.5	379	46	5.1	0.2	0.3	0.3
1250	69	495	45	9.2	418	46	6.5	368	47	5.1	0.2	0.3	0.4
1250	103	518	45	9.0	439	46	6.5	387	47	5.1	0.2	0.3	0.4
1250	138	533	44	8.9	452	46	6.5	399	47	5.1	0.2	0.3	0.4
1250	207	548	44	8.8	466	46	6.4	412	47	5.0	0.2	0.3	0.4
1500	69	523	45	9.0	441	47	6.4	387	47	5.0	0.2	0.3	0.4
1500	103	550	45	8.9	464	46	6.4	409	47	4.9	0.2	0.3	0.4
1500	138	567	45	8.8	479	46	6.3	423	47	4.9	0.2	0.3	0.4
1500	207	585	44	8.7	496	46	6.2	438	47	4.9	0.2	0.3	0.4
1750	69	546	46	8.9	459	47	6.3	403	48	4.9	0.2	0.3	0.4
1750	103	576	45	8.8	485	47	6.2	427	47	4.9	0.2	0.3	0.4
1750	138	595	45	8.7	502	46	6.2	442	47	4.9	0.2	0.3	0.4
1750	207	616	45	8.5	522	46	6.2	460	47	4.8	0.2	0.3	0.4
2000	69	564	46	8.8	473	47	6.3	415	48	4.9	0.2	0.3	0.4
2000	103	597	45	8.7	503	47	6.2	442	48	4.8	0.2	0.3	0.4
2000	138	618	45	8.6	521	47	6.1	459	47	4.8	0.2	0.3	0.4
2000	207	642	45	8.4	542	46	6.1	478	47	4.7	0.2	0.3	0.4
2250	69	578	46	8.7	485	47	6.2	425	48	4.7	0.2	0.3	0.4
2250	103	614	46	8.6	516	47	6.1	453	48	4.7	0.2	0.3	0.4
2250	138	637	45	8.5	536	47	6.0	471	47	4.7	0.2	0.3	0.4
2250	207	663	45	8.3	559	47	6.0	492	47	4.7	0.2	0.3	0.4
2500	69	592	46	8.6	496	47	6.1	434	48	4.7	0.2	0.3	0.4
2500	103	630	46	8.5	529	47	6.0	464	48	4.6	0.2	0.3	0.4
2500	138	654	46	8.4	550	47	6.0	483	48	4.6	0.2	0.3	0.4
2500	207	682	45	8.3	575	47	5.9	506	47	4.5	0.2	0.3	0.4

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - Triplexed - Double Circuit

25°C Earth Ambient

Condr Size	Shield Res	60 Rho 75 LF	60 Rho 100 LF	90 Rho 75 LF	90 Rho 100 LF	120 Rho 75 LF	120 Rho 100 LF
		Total Watts/ft					
90°C - Copper Conductor - Concentric Strand							
500	69	73.1	56.3	56.1	41.4	45.6	32.7
500	103	72.1	55.6	55.4	40.9	45.2	32.4
500	138	71.3	55.2	55.2	40.7	44.9	32.3
500	207	70.6	54.8	54.8	40.6	44.7	32.1
750	69	78.2	59.2	59.4	43.0	48.0	33.9
750	103	76.7	58.3	58.5	42.6	47.4	33.6
750	138	75.7	57.8	58.0	42.3	47.1	33.4
750	207	74.8	57.3	57.5	42.0	46.8	33.2
1000	69	82.7	61.7	62.2	44.5	50.0	34.9
1000	103	80.9	60.6	61.3	44.0	49.4	34.5
1000	138	79.8	60.1	60.6	43.7	49.0	34.3
1000	207	78.8	59.4	60.1	43.4	48.7	34.2
1250	69	86.0	63.5	64.3	45.6	51.5	35.5
1250	103	84.0	62.4	63.2	45.0	50.8	35.2
1250	138	82.9	61.8	62.6	44.7	50.4	35.0
1250	207	81.6	61.1	61.8	44.3	50.0	34.8
1500	69	88.8	65.1	66.0	46.5	52.8	36.1
1500	103	86.8	64.0	64.9	46.0	52.0	35.8
1500	138	85.5	63.3	64.3	45.6	51.6	35.6
1500	207	84.1	62.5	63.4	45.1	51.1	35.3
1750	69	91.3	66.3	67.6	47.2	53.8	36.6
1750	103	89.2	65.2	66.4	46.7	53.2	36.3
1750	138	87.9	64.6	65.7	46.2	52.6	36.1
1750	207	86.4	63.8	64.8	45.9	52.1	35.8
2000	69	93.5	67.6	68.9	47.9	54.8	37.1
2000	103	91.2	66.3	67.7	47.4	54.0	36.8
2000	138	90.0	65.6	67.0	46.9	53.6	36.5
2000	207	88.4	64.8	66.1	46.5	53.0	36.3
2250	69	95.2	68.4	70.0	48.4	55.6	37.4
2250	103	93.0	67.3	68.8	47.8	54.8	37.1
2250	138	91.6	66.5	68.1	47.4	54.3	36.8
2250	207	90.1	65.8	67.3	47.1	53.8	36.6
2500	69	96.9	69.3	71.2	48.9	56.3	37.8
2500	103	94.8	68.2	70.0	48.4	55.7	37.5
2500	138	93.4	67.4	69.2	48.0	55.1	37.2
2500	207	91.7	66.6	68.3	47.5	54.5	37.0

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - Triplexed - Double Circuit

25°C Earth Ambient

Condr Size	Shield Res	60 Rho 75 LF	60 Rho 100 LF	90 Rho 75 LF	90 Rho 100 LF	120 Rho 75 LF	120 Rho 100 LF
		Total Watts/ft					
80°C - Copper Conductor - Concentric Strand							
500	69	62.1	47.6	47.6	35.1	38.8	27.7
500	103	61.1	47.1	47.1	34.8	38.3	27.4
500	138	60.6	46.9	46.7	34.6	38.1	27.4
500	207	60.0	46.3	46.3	34.3	37.9	27.2
750	69	66.2	50.2	50.3	36.5	40.6	28.7
750	103	65.0	49.3	49.6	36.1	40.2	28.4
750	138	64.2	48.9	49.1	35.8	40.0	28.2
750	207	63.4	48.5	48.7	35.6	39.5	28.1
1000	69	70.2	52.3	52.8	37.8	42.4	29.5
1000	103	68.6	51.5	52.0	37.3	41.8	29.2
1000	138	67.7	51.0	51.5	37.0	41.6	29.1
1000	207	66.7	50.4	50.9	36.8	41.2	28.9
1250	69	73.0	53.9	54.5	38.6	43.6	30.1
1250	103	71.3	52.9	53.6	38.2	43.1	29.8
1250	138	70.3	52.4	53.0	37.9	42.7	29.7
1250	207	69.2	51.8	52.4	37.6	42.2	29.4
1500	69	75.5	55.1	56.0	39.4	44.7	30.6
1500	103	73.6	54.3	55.1	38.9	44.1	30.3
1500	138	72.6	53.7	54.4	38.6	43.8	30.2
1500	207	71.3	53.0	53.8	38.3	43.3	29.9
1750	69	77.4	56.3	57.3	40.0	45.6	31.1
1750	103	75.7	55.4	56.3	39.6	45.1	30.8
1750	138	74.6	54.7	55.7	39.3	44.7	30.6
1750	207	73.2	54.1	55.1	38.9	44.1	30.4
2000	69	79.3	57.2	58.5	40.5	46.5	31.4
2000	103	77.4	56.2	57.5	40.1	45.8	31.1
2000	138	76.2	55.6	56.7	39.7	45.4	30.9
2000	207	74.8	55.0	56.0	39.4	44.9	30.7
2250	69	80.9	58.1	59.4	41.1	47.2	31.8
2250	103	78.9	57.1	58.5	40.5	46.5	31.5
2250	138	77.7	56.4	57.8	40.3	46.0	31.3
2250	207	76.3	55.7	57.0	39.8	45.6	31.0
2500	69	82.2	58.8	60.3	41.4	47.8	32.0
2500	103	80.3	57.8	59.3	40.9	47.1	31.7
2500	138	79.1	57.1	58.6	40.7	46.6	31.6
2500	207	77.8	56.5	57.8	40.3	46.2	31.4

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - Triplexed - Double Circuit

25°C Earth Ambient

Condr Size	Shield Res	60 Rho 75 LF	60 Rho 100 LF	90 Rho 75 LF	90 Rho 100 LF	120 Rho 75 LF	120 Rho 100 LF
		Total Watts/ft					
65°C - Copper Conductor - Concentric Strand							
500	69	45.4	34.8	34.8	25.6	28.2	20.1
500	103	44.6	34.3	34.3	25.3	27.9	20.0
500	138	44.1	34.0	34.0	25.2	27.7	19.9
500	207	43.7	33.8	33.7	25.0	27.6	19.8
750	69	48.4	36.7	36.8	26.6	29.7	20.9
750	103	47.5	36.0	36.1	26.4	29.3	20.7
750	138	47.0	35.8	35.8	26.1	29.1	20.6
750	207	46.3	35.3	35.4	25.9	28.8	20.4
1000	69	51.3	38.2	38.6	27.6	30.9	21.6
1000	103	50.1	37.6	37.8	27.2	30.5	21.4
1000	138	49.4	37.1	37.5	27.0	30.2	21.2
1000	207	48.7	36.7	37.1	26.8	29.9	21.0
1250	69	53.4	39.4	39.8	28.2	31.9	22.0
1250	103	52.1	38.7	39.2	27.9	31.4	21.7
1250	138	51.4	38.2	38.7	27.6	31.1	21.6
1250	207	50.5	37.8	38.2	27.4	30.8	21.5
1500	69	55.1	40.3	40.9	28.8	32.6	22.3
1500	103	53.8	39.6	40.2	28.4	32.1	22.1
1500	138	53.0	39.2	39.8	28.2	31.9	22.0
1500	207	52.1	38.6	39.3	27.9	31.5	21.8
1750	69	56.7	41.2	41.9	29.2	33.3	22.7
1750	103	55.3	40.4	41.1	28.9	32.8	22.4
1750	138	54.4	39.9	40.6	28.6	32.5	22.3
1750	207	53.4	39.5	40.1	28.3	32.1	22.1
2000	69	57.9	41.8	42.6	29.6	33.8	22.9
2000	103	56.5	41.1	41.8	29.2	33.4	22.7
2000	138	55.7	40.6	41.4	29.0	33.0	22.5
2000	207	54.6	40.1	40.8	28.7	32.7	22.4
2250	69	59.1	42.4	43.3	29.9	34.3	23.1
2250	103	57.7	41.7	42.6	29.6	33.8	22.9
2250	138	56.7	41.2	42.1	29.3	33.5	22.8
2250	207	55.8	40.7	41.6	29.0	33.2	22.6
2500	69	60.1	42.9	44.0	30.2	34.8	23.3
2500	103	58.6	42.2	43.3	29.9	34.3	23.2
2500	138	57.8	41.7	42.7	29.6	34.0	23.0
2500	207	56.7	41.1	42.1	29.4	33.6	22.8

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - Triplexed - Double Circuit

25°C Earth Ambient

Condr Size	Shield Res	60 Rho 75 LF	60 Rho 100 LF	90 Rho 75 LF	90 Rho 100 LF	120 Rho 75 LF	120 Rho 100 LF
		Total Watts/ft					
50°C - Copper Conductor - Concentric Strand							
500	69	28.5	21.8	21.8	16.0	17.7	12.6
500	103	28.0	21.5	21.4	15.9	17.4	12.5
500	138	27.7	21.4	21.3	15.7	17.4	12.5
500	207	27.4	21.2	21.1	15.7	17.2	12.4
750	69	30.5	23.0	23.1	16.7	18.6	13.1
750	103	29.8	22.6	22.7	16.5	18.4	12.9
750	138	29.4	22.4	22.4	16.4	18.2	12.9
750	207	29.0	22.1	22.2	16.2	18.1	12.8
1000	69	32.2	24.0	24.1	17.2	19.4	13.5
1000	103	31.5	23.5	23.7	17.0	19.1	13.4
1000	138	31.0	23.4	23.5	16.9	19.0	13.3
1000	207	30.5	23.0	23.2	16.8	18.7	13.2
1250	69	33.6	24.7	25.0	17.7	20.0	13.7
1250	103	32.8	24.2	24.5	17.5	19.7	13.6
1250	138	32.2	24.0	24.2	17.3	19.5	13.6
1250	207	31.7	23.7	23.9	17.2	19.3	13.5
1500	69	34.7	25.3	25.7	18.1	20.4	14.0
1500	103	33.8	24.9	25.1	17.8	20.1	13.9
1500	138	33.2	24.6	24.8	17.6	19.9	13.8
1500	207	32.6	24.2	24.5	17.5	19.7	13.7
1750	69	35.5	25.8	26.2	18.3	20.8	14.2
1750	103	34.7	25.3	25.8	18.0	20.5	14.0
1750	138	34.2	25.0	25.5	17.9	20.3	13.9
1750	207	33.5	24.6	25.0	17.8	20.1	13.8
2000	69	36.4	26.2	26.7	18.5	21.2	14.3
2000	103	35.5	25.7	26.3	18.3	20.9	14.2
2000	138	34.9	25.4	25.9	18.2	20.7	14.1
2000	207	34.2	25.1	25.6	18.0	20.5	14.0
2250	69	37.1	26.5	27.2	18.8	21.4	14.5
2250	103	36.2	26.1	26.7	18.5	21.1	14.3
2250	138	35.6	25.8	26.3	18.4	20.9	14.2
2250	207	34.9	25.5	25.9	18.2	20.7	14.1
2500	69	37.7	26.9	27.6	19.0	21.8	14.6
2500	103	36.8	26.5	27.0	18.7	21.5	14.5
2500	138	36.2	26.1	26.8	18.5	21.2	14.4
2500	207	35.5	25.8	26.4	18.4	21.0	14.3

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - Triplexed - Double Circuit

25°C Earth Ambient

Condr Size	Sheath Res	OD	Wd	Rac	Qs	Ri	Rj	Re @ 90 Rho & loss factor 75%	Re @ 90 Rho & loss factor 100%
			90°C - Copper Conductor - Concentric Strand						
500	69	2.679	0.03	27.52	1.179	1.95	0.27	3.96	5.81
500	103	2.679	0.03	27.52	1.123	1.95	0.27	3.96	5.81
500	138	2.679	0.03	27.52	1.093	1.95	0.27	3.96	5.81
500	207	2.679	0.03	27.52	1.062	1.95	0.27	3.96	5.81
750	69	2.918	0.03	18.84	1.267	1.72	0.32	3.84	5.69
750	103	2.918	0.03	18.84	1.184	1.72	0.32	3.84	5.69
750	138	2.918	0.03	18.84	1.139	1.72	0.32	3.84	5.69
750	207	2.918	0.03	18.84	1.093	1.72	0.32	3.84	5.69
1000	69	3.107	0.03	14.64	1.343	1.56	0.30	3.75	5.60
1000	103	3.107	0.03	14.64	1.236	1.56	0.30	3.75	5.60
1000	138	3.107	0.03	14.64	1.178	1.56	0.30	3.75	5.60
1000	207	3.107	0.03	14.64	1.120	1.56	0.30	3.75	5.60
1250	69	3.240	0.04	12.22	1.407	1.45	0.28	3.69	5.55
1250	103	3.240	0.04	12.22	1.280	1.45	0.28	3.69	5.55
1250	138	3.240	0.04	12.22	1.211	1.45	0.28	3.69	5.55
1250	207	3.240	0.04	12.22	1.142	1.45	0.28	3.69	5.55
1500	69	3.360	0.04	10.68	1.463	1.36	0.27	3.64	5.49
1500	103	3.360	0.04	10.68	1.319	1.36	0.27	3.64	5.49
1500	138	3.360	0.04	10.68	1.240	1.36	0.27	3.64	5.49
1500	207	3.360	0.04	10.68	1.161	1.36	0.27	3.64	5.49
1750	69	3.470	0.04	9.61	1.511	1.29	0.26	3.60	5.45
1750	103	3.470	0.04	9.61	1.352	1.29	0.26	3.60	5.45
1750	138	3.470	0.04	9.61	1.265	1.29	0.26	3.60	5.45
1750	207	3.470	0.04	9.61	1.178	1.29	0.26	3.60	5.45
2000	69	3.573	0.04	8.81	1.555	1.22	0.26	3.55	5.41
2000	103	3.573	0.04	8.81	1.382	1.22	0.26	3.55	5.41
2000	138	3.573	0.04	8.81	1.288	1.22	0.26	3.55	5.41
2000	207	3.573	0.04	8.81	1.193	1.22	0.26	3.55	5.41
2250	69	3.668	0.04	8.26	1.588	1.17	0.25	3.52	5.37
2250	103	3.668	0.04	8.26	1.405	1.17	0.25	3.52	5.37
2250	138	3.668	0.04	8.26	1.305	1.17	0.25	3.52	5.37
2250	207	3.668	0.04	8.26	1.205	1.17	0.25	3.52	5.37
2500	69	3.759	0.04	7.79	1.622	1.13	0.24	3.48	5.34
2500	103	3.759	0.04	7.79	1.428	1.13	0.24	3.48	5.34
2500	138	3.759	0.04	7.79	1.323	1.13	0.24	3.48	5.34
2500	207	3.759	0.04	7.79	1.216	1.13	0.24	3.48	5.34

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1060

69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - Triplexed - Double Circuit

25°C Earth Ambient

Condr Size	Sheath Res	OD	Wd	Rac	Qs	Ri	Rj	Re @ 90 loss 75%	Rho & factor 100%
			80°C - Copper Conductor - Concentric Strand						
500	69	2.679	0.03	27.52	1.179	1.95	0.27	3.96	5.81
500	103	2.679	0.03	27.52	1.123	1.95	0.27	3.96	5.81
500	138	2.679	0.03	27.52	1.093	1.95	0.27	3.96	5.81
500	207	2.679	0.03	27.52	1.062	1.95	0.27	3.96	5.81
750	69	2.918	0.03	18.84	1.267	1.72	0.32	3.84	5.69
750	103	2.918	0.03	18.84	1.184	1.72	0.32	3.84	5.69
750	138	2.918	0.03	18.84	1.139	1.72	0.32	3.84	5.69
750	207	2.918	0.03	18.84	1.093	1.72	0.32	3.84	5.69
1000	69	3.107	0.03	14.64	1.343	1.56	0.30	3.75	5.60
1000	103	3.107	0.03	14.64	1.236	1.56	0.30	3.75	5.60
1000	138	3.107	0.03	14.64	1.178	1.56	0.30	3.75	5.60
1000	207	3.107	0.03	14.64	1.120	1.56	0.30	3.75	5.60
1250	69	3.240	0.04	12.22	1.407	1.45	0.28	3.69	5.55
1250	103	3.240	0.04	12.22	1.280	1.45	0.28	3.69	5.55
1250	138	3.240	0.04	12.22	1.211	1.45	0.28	3.69	5.55
1250	207	3.240	0.04	12.22	1.142	1.45	0.28	3.69	5.55
1500	69	3.360	0.04	10.68	1.463	1.36	0.27	3.64	5.49
1500	103	3.360	0.04	10.68	1.319	1.36	0.27	3.64	5.49
1500	138	3.360	0.04	10.68	1.240	1.36	0.27	3.64	5.49
1500	207	3.360	0.04	10.68	1.161	1.36	0.27	3.64	5.49
1750	69	3.470	0.04	9.61	1.511	1.29	0.26	3.60	5.45
1750	103	3.470	0.04	9.61	1.352	1.29	0.26	3.60	5.45
1750	138	3.470	0.04	9.61	1.265	1.29	0.26	3.60	5.45
1750	207	3.470	0.04	9.61	1.178	1.29	0.26	3.60	5.45
2000	69	3.573	0.04	8.81	1.555	1.22	0.26	3.55	5.41
2000	103	3.573	0.04	8.81	1.382	1.22	0.26	3.55	5.41
2000	138	3.573	0.04	8.81	1.288	1.22	0.26	3.55	5.41
2000	207	3.573	0.04	8.81	1.193	1.22	0.26	3.55	5.41
2250	69	3.668	0.04	8.26	1.588	1.17	0.25	3.52	5.37
2250	103	3.668	0.04	8.26	1.405	1.17	0.25	3.52	5.37
2250	138	3.668	0.04	8.26	1.305	1.17	0.25	3.52	5.37
2250	207	3.668	0.04	8.26	1.205	1.17	0.25	3.52	5.37
2500	69	3.759	0.04	7.79	1.622	1.13	0.24	3.48	5.34
2500	103	3.759	0.04	7.79	1.428	1.13	0.24	3.48	5.34
2500	138	3.759	0.04	7.79	1.323	1.13	0.24	3.48	5.34
2500	207	3.759	0.04	7.79	1.216	1.13	0.24	3.48	5.34

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - Triplexed - Double Circuit

25°C Earth Ambient

Condr Size	Sheath Res	OD	Wd	Rac	Qs	Ri	Rj	Re @ 90 Rho & loss factor 75%	Re @ 90 Rho & loss factor 100%
			65°C - Copper Conductor - Concentric Strand						
500	69	2.679	0.03	27.52	1.179	1.95	0.27	3.96	5.81
500	103	2.679	0.03	27.52	1.123	1.95	0.27	3.96	5.81
500	138	2.679	0.03	27.52	1.093	1.95	0.27	3.96	5.81
500	207	2.679	0.03	27.52	1.062	1.95	0.27	3.96	5.81
750	69	2.918	0.03	18.84	1.267	1.72	0.32	3.84	5.69
750	103	2.918	0.03	18.84	1.184	1.72	0.32	3.84	5.69
750	138	2.918	0.03	18.84	1.139	1.72	0.32	3.84	5.69
750	207	2.918	0.03	18.84	1.093	1.72	0.32	3.84	5.69
1000	69	3.107	0.03	14.64	1.343	1.56	0.30	3.75	5.60
1000	103	3.107	0.03	14.64	1.236	1.56	0.30	3.75	5.60
1000	138	3.107	0.03	14.64	1.178	1.56	0.30	3.75	5.60
1000	207	3.107	0.03	14.64	1.120	1.56	0.30	3.75	5.60
1250	69	3.240	0.04	12.22	1.407	1.45	0.28	3.69	5.55
1250	103	3.240	0.04	12.22	1.280	1.45	0.28	3.69	5.55
1250	138	3.240	0.04	12.22	1.211	1.45	0.28	3.69	5.55
1250	207	3.240	0.04	12.22	1.142	1.45	0.28	3.69	5.55
1500	69	3.360	0.04	10.68	1.463	1.36	0.27	3.64	5.49
1500	103	3.360	0.04	10.68	1.319	1.36	0.27	3.64	5.49
1500	138	3.360	0.04	10.68	1.240	1.36	0.27	3.64	5.49
1500	207	3.360	0.04	10.68	1.161	1.36	0.27	3.64	5.49
1750	69	3.470	0.04	9.61	1.511	1.29	0.26	3.60	5.45
1750	103	3.470	0.04	9.61	1.352	1.29	0.26	3.60	5.45
1750	138	3.470	0.04	9.61	1.265	1.29	0.26	3.60	5.45
1750	207	3.470	0.04	9.61	1.178	1.29	0.26	3.60	5.45
2000	69	3.573	0.04	8.81	1.555	1.22	0.26	3.55	5.41
2000	103	3.573	0.04	8.81	1.382	1.22	0.26	3.55	5.41
2000	138	3.573	0.04	8.81	1.288	1.22	0.26	3.55	5.41
2000	207	3.573	0.04	8.81	1.193	1.22	0.26	3.55	5.41
2250	69	3.668	0.04	8.26	1.588	1.17	0.25	3.52	5.37
2250	103	3.668	0.04	8.26	1.405	1.17	0.25	3.52	5.37
2250	138	3.668	0.04	8.26	1.305	1.17	0.25	3.52	5.37
2250	207	3.668	0.04	8.26	1.205	1.17	0.25	3.52	5.37
2500	69	3.759	0.04	7.79	1.622	1.13	0.24	3.48	5.34
2500	103	3.759	0.04	7.79	1.428	1.13	0.24	3.48	5.34
2500	138	3.759	0.04	7.79	1.323	1.13	0.24	3.48	5.34
2500	207	3.759	0.04	7.79	1.216	1.13	0.24	3.48	5.34

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1062

69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - Triplexed - Double Circuit

25°C Earth Ambient

Condr Size	Sheath Res	OD	Wd	Rac	Qs	Ri	Rj	Re @ 90 loss 75%	Rho & factor 100%
			50°C - Copper Conductor - Concentric Strand						
500	69	2.679	0.03	27.52	1.179	1.95	0.27	3.96	5.81
500	103	2.679	0.03	27.52	1.123	1.95	0.27	3.96	5.81
500	138	2.679	0.03	27.52	1.093	1.95	0.27	3.96	5.81
500	207	2.679	0.03	27.52	1.062	1.95	0.27	3.96	5.81
750	69	2.918	0.03	18.84	1.267	1.72	0.32	3.84	5.69
750	103	2.918	0.03	18.84	1.184	1.72	0.32	3.84	5.69
750	138	2.918	0.03	18.84	1.139	1.72	0.32	3.84	5.69
750	207	2.918	0.03	18.84	1.093	1.72	0.32	3.84	5.69
1000	69	3.107	0.03	14.64	1.343	1.56	0.30	3.75	5.60
1000	103	3.107	0.03	14.64	1.236	1.56	0.30	3.75	5.60
1000	138	3.107	0.03	14.64	1.178	1.56	0.30	3.75	5.60
1000	207	3.107	0.03	14.64	1.120	1.56	0.30	3.75	5.60
1250	69	3.240	0.04	12.22	1.407	1.45	0.28	3.69	5.55
1250	103	3.240	0.04	12.22	1.280	1.45	0.28	3.69	5.55
1250	138	3.240	0.04	12.22	1.211	1.45	0.28	3.69	5.55
1250	207	3.240	0.04	12.22	1.142	1.45	0.28	3.69	5.55
1500	69	3.360	0.04	10.68	1.463	1.36	0.27	3.64	5.49
1500	103	3.360	0.04	10.68	1.319	1.36	0.27	3.64	5.49
1500	138	3.360	0.04	10.68	1.240	1.36	0.27	3.64	5.49
1500	207	3.360	0.04	10.68	1.161	1.36	0.27	3.64	5.49
1750	69	3.470	0.04	9.61	1.511	1.29	0.26	3.60	5.45
1750	103	3.470	0.04	9.61	1.352	1.29	0.26	3.60	5.45
1750	138	3.470	0.04	9.61	1.265	1.29	0.26	3.60	5.45
1750	207	3.470	0.04	9.61	1.178	1.29	0.26	3.60	5.45
2000	69	3.573	0.04	8.81	1.555	1.22	0.26	3.55	5.41
2000	103	3.573	0.04	8.81	1.382	1.22	0.26	3.55	5.41
2000	138	3.573	0.04	8.81	1.288	1.22	0.26	3.55	5.41
2000	207	3.573	0.04	8.81	1.193	1.22	0.26	3.55	5.41
2250	69	3.668	0.04	8.26	1.588	1.17	0.25	3.52	5.37
2250	103	3.668	0.04	8.26	1.405	1.17	0.25	3.52	5.37
2250	138	3.668	0.04	8.26	1.305	1.17	0.25	3.52	5.37
2250	207	3.668	0.04	8.26	1.205	1.17	0.25	3.52	5.37
2500	69	3.759	0.04	7.79	1.622	1.13	0.24	3.48	5.34
2500	103	3.759	0.04	7.79	1.428	1.13	0.24	3.48	5.34
2500	138	3.759	0.04	7.79	1.323	1.13	0.24	3.48	5.34
2500	207	3.759	0.04	7.79	1.216	1.13	0.24	3.48	5.34

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - 1 Circuit - Three Cables - Spaced

25°C Earth Ambient

Condr Size	Shield Res	60 Rho Amps	60 Rho Interface Temp °C	60 Rho Flux w/ft²	90 Rho Amps	90 Rho Interface Temp °C	90 Rho Flux w/ft²	120 Rho Amps	120 Rho Interface Temp °C	120 Rho Flux w/ft²	delta Td for .0010 pf & Rho 60	90	120
						75% LF							
						90°C - Copper Conductor - Concentric Strand							
500	69	657	60	35.8	586	66	28.4	534	70	23.5	0.1	0.1	0.1
500	103	679	59	34.2	607	65	27.4	555	69	22.8	0.1	0.1	0.1
500	138	698	58	32.8	627	64	26.4	574	69	22.1	0.1	0.1	0.1
500	207	724	57	30.8	651	63	25.0	597	68	21.0	0.1	0.1	0.2
750	69	760	63	36.4	672	69	28.5	610	73	23.4	0.1	0.1	0.2
750	103	795	61	34.8	705	68	27.5	641	71	22.8	0.1	0.1	0.2
750	138	825	60	33.4	735	66	26.4	670	70	22.0	0.1	0.1	0.2
750	207	868	59	31.3	777	65	25.0	710	70	20.9	0.1	0.1	0.2
750	Open	979	54	23.4	888	60	19.4	820	65	16.5	0.1	0.1	0.2
1000	69	840	65	37.4	738	71	28.8	667	74	23.5	0.1	0.1	0.2
1000	103	886	64	35.8	781	70	27.8	707	73	22.9	0.1	0.1	0.2
1000	138	927	63	34.3	820	69	26.8	744	72	22.1	0.1	0.1	0.2
1000	207	984	61	32.0	876	67	25.3	797	71	21.0	0.1	0.1	0.2
1000	Open	1147	55	23.4	1037	61	19.1	954	66	16.2	0.1	0.1	0.2
1250	69	901	67	38.1	787	73	29.1	709	76	23.6	0.1	0.1	0.2
1250	103	956	66	36.5	839	71	28.1	757	75	22.9	0.1	0.1	0.2
1250	138	1006	64	35.0	886	70	27.1	801	74	22.2	0.1	0.1	0.2
1250	207	1077	62	32.7	953	68	25.7	865	72	21.1	0.1	0.1	0.2
1250	Open	1289	56	23.3	1162	62	19.0	1067	67	16.0	0.1	0.2	0.2
1500	Open	1411	57	23.4	1269	63	18.9	1164	68	15.9	0.1	0.2	0.2
1750	Open	1518	58	23.3	1362	64	18.8	1247	68	15.7	0.1	0.2	0.2
2000	Open	1614	58	23.3	1445	65	18.7	1321	69	15.6	0.1	0.2	0.2
2250	Open	1691	59	23.2	1512	65	18.5	1381	69	15.5	0.1	0.2	0.2
2500	Open	1766	60	23.2	1577	66	18.5	1438	70	15.3	0.1	0.2	0.2

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - 1 Circuit - Three Cables - Spaced

25°C Earth Ambient

Condr Size	Shield Res	60 Rho Amps	60 Rho Interface Temp °C	60 Rho Flux w/ft²	90 Rho Amps	90 Rho Interface Temp °C	90 Rho Flux w/ft²	120 Rho Amps	120 Rho Interface Temp °C	120 Rho Flux w/ft²	delta Td for .0010 pf & Rho 60	90	120
						100% LF							
						90°C - Copper Conductor - Concentric Strand							
500	69	591	67	28.9	516	72	22.0	463	76	17.7	0.1	0.1	0.1
500	103	613	66	27.8	535	72	21.2	481	75	17.3	0.1	0.1	0.1
500	138	631	65	26.7	552	71	20.5	497	74	16.7	0.1	0.1	0.1
500	207	653	63	25.1	574	69	19.4	518	73	15.8	0.1	0.1	0.2
750	69	678	69	28.9	587	74	21.7	525	77	17.4	0.1	0.1	0.2
750	103	711	68	27.9	618	73	21.1	554	77	17.0	0.1	0.1	0.2
750	138	741	67	26.8	646	73	20.4	580	76	16.5	0.1	0.1	0.2
750	207	781	66	25.3	682	71	19.4	613	75	15.6	0.1	0.1	0.2
750	Open	891	60	19.5	791	66	15.3	718	71	12.7	0.1	0.1	0.2
1000	69	744	71	29.3	640	76	21.6	570	79	17.2	0.1	0.1	0.2
1000	103	787	70	28.3	679	75	21.0	606	78	16.7	0.1	0.1	0.2
1000	138	826	69	27.2	715	74	20.4	640	78	16.4	0.1	0.1	0.2
1000	207	881	68	25.7	766	73	19.4	685	77	15.5	0.1	0.1	0.2
1000	Open	1039	61	19.2	918	68	15.0	832	72	12.3	0.1	0.1	0.2
1250	69	793	72	29.5	679	77	21.7	603	80	17.1	0.1	0.1	0.2
1250	103	844	71	28.5	725	76	21.0	646	79	16.6	0.1	0.1	0.2
1250	138	891	70	27.5	768	75	20.4	685	78	16.3	0.1	0.1	0.2
1250	207	958	69	25.9	830	75	19.5	742	78	15.6	0.1	0.1	0.2
1250	Open	1163	62	19.1	1025	69	14.9	926	73	12.1	0.1	0.2	0.2
1500	Open	1269	63	18.9	1116	69	14.7	1007	73	11.9	0.1	0.2	0.2
1750	Open	1361	64	18.8	1194	70	14.4	1076	74	11.8	0.1	0.2	0.2
2000	Open	1444	65	18.7	1263	71	14.3	1137	74	11.5	0.1	0.2	0.2
2250	Open	1510	65	18.5	1319	71	14.2	1186	75	11.5	0.1	0.2	0.2
2500	Open	1573	66	18.4	1372	72	14.0	1232	75	11.3	0.1	0.2	0.2

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - 1 Circuit - Three Cables - Spaced

25°C Earth Ambient

Condr Size	Shield Res	60 Rho Amps	60 Rho Interface Temp °C	60 Rho Flux w/ft²	90 Rho Amps	90 Rho Interface Temp °C	90 Rho Flux w/ft²	120 Rho Amps	120 Rho Interface Temp °C	120 Rho Flux w/ft²	delta Td for .0010 pf & Rho 60	90	120
						75% LF							
						80°C - Copper Conductor - Concentric Strand							
500	69	605	55	30.8	538	60	24.4	490	64	20.2	0.1	0.1	0.1
500	103	624	54	29.5	557	59	23.5	509	63	19.7	0.1	0.1	0.1
500	138	643	53	28.4	576	59	22.8	527	62	19.0	0.1	0.1	0.1
500	207	668	52	26.5	602	58	21.5	551	61	18.1	0.1	0.1	0.2
750	69	696	57	31.3	615	62	24.5	557	66	20.0	0.1	0.1	0.2
750	103	727	56	30.1	644	61	23.7	585	65	19.5	0.1	0.1	0.2
750	138	756	55	28.8	672	61	22.8	612	64	19.0	0.1	0.1	0.2
750	207	797	54	27.0	713	59	21.6	651	63	18.1	0.1	0.1	0.2
750	Open	913	49	19.9	829	55	16.4	765	59	14.0	0.1	0.1	0.2
1000	69	767	60	32.1	673	64	24.7	607	67	20.2	0.1	0.1	0.2
1000	103	807	58	30.9	711	63	24.0	643	66	19.5	0.1	0.1	0.2
1000	138	846	57	29.6	747	62	23.1	677	66	18.9	0.1	0.1	0.2
1000	207	901	56	27.7	800	61	21.9	728	64	18.1	0.1	0.1	0.2
1000	Open	1069	50	19.8	967	56	16.2	890	60	13.6	0.1	0.1	0.2
1250	69	820	61	32.7	715	66	24.9	644	68	20.2	0.1	0.1	0.2
1250	103	869	60	31.5	761	65	24.2	686	68	19.7	0.1	0.1	0.2
1250	138	915	59	30.2	804	64	23.3	727	67	19.1	0.1	0.1	0.2
1250	207	983	57	28.3	869	62	22.0	788	65	18.2	0.1	0.1	0.2
1250	Open	1201	51	19.8	1082	57	16.0	994	60	13.6	0.1	0.2	0.2
1500	Open	1314	52	19.8	1181	57	16.0	1083	61	13.4	0.1	0.2	0.2
1750	Open	1412	53	19.8	1267	58	16.0	1159	62	13.3	0.1	0.2	0.2
2000	Open	1500	53	19.8	1343	59	15.8	1228	62	13.3	0.1	0.2	0.2
2250	Open	1572	54	19.7	1405	59	15.7	1282	63	13.1	0.1	0.2	0.2
2500	Open	1640	54	19.6	1464	60	15.6	1335	63	13.0	0.1	0.2	0.2

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - 1 Circuit - Three Cables - Spaced

25°C Earth Ambient

Condr Size	Shield Res	60 Rho Amps	60 Rho Interface Temp °C	60 Rho Interface Flux w/ft²	90 Rho Amps	90 Rho Interface Temp °C	90 Rho Interface Flux w/ft²	120 Rho Amps	120 Rho Interface Temp °C	120 Rho Interface Flux w/ft²	delta Td for .0010 pf & Rho 60	90	120
						100% LF							
						80°C - Copper Conductor - Concentric Strand							
500	69	543	61	24.8	473	65	18.8	425	68	15.3	0.1	0.1	0.1
500	103	563	60	24.0	492	65	18.4	441	68	14.8	0.1	0.1	0.1
500	138	581	59	23.1	508	64	17.7	457	67	14.3	0.1	0.1	0.1
500	207	603	58	21.7	530	63	16.7	478	66	13.5	0.1	0.1	0.2
750	69	620	62	24.9	536	67	18.6	479	69	14.9	0.1	0.1	0.2
750	103	650	61	24.1	563	66	18.1	504	69	14.5	0.1	0.1	0.2
750	138	678	61	23.2	590	66	17.5	529	69	14.1	0.1	0.1	0.2
750	207	718	60	21.9	626	65	16.6	562	68	13.5	0.1	0.1	0.2
750	Open	832	55	16.5	738	60	13.0	670	64	10.7	0.1	0.1	0.2
1000	69	678	64	25.1	582	68	18.6	518	71	14.6	0.1	0.1	0.2
1000	103	716	63	24.3	617	67	18.1	550	70	14.4	0.1	0.1	0.2
1000	138	752	62	23.5	650	67	17.6	581	70	14.0	0.1	0.1	0.2
1000	207	805	61	22.1	700	66	16.7	626	69	13.4	0.1	0.1	0.2
1000	Open	969	56	16.2	856	61	12.7	776	64	10.4	0.1	0.1	0.2
1250	69	721	65	25.2	616	69	18.5	547	72	14.6	0.1	0.1	0.2
1250	103	766	64	24.5	657	69	18.0	584	71	14.3	0.1	0.1	0.2
1250	138	809	64	23.7	697	68	17.6	621	70	13.9	0.1	0.1	0.2
1250	207	874	63	22.3	756	67	16.7	675	70	13.3	0.1	0.1	0.2
1250	Open	1084	57	16.2	955	62	12.5	863	65	10.3	0.1	0.2	0.2
1500	Open	1182	57	16.0	1038	63	12.4	937	66	10.1	0.1	0.2	0.2
1750	Open	1266	58	16.0	1110	63	12.2	1000	66	9.9	0.1	0.2	0.2
2000	Open	1342	59	15.8	1174	64	12.1	1057	67	9.8	0.1	0.2	0.2
2250	Open	1403	59	15.7	1225	64	12.0	1101	67	9.7	0.1	0.2	0.2
2500	Open	1461	60	15.5	1274	64	11.9	1144	67	9.6	0.1	0.2	0.2

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - 1 Circuit - Three Cables - Spaced

25°C Earth Ambient

Condr Size	Shield Res	60 Rho Amps	60 Rho Interface Temp °C	60 Rho Flux w/ft²	90 Rho Amps	90 Rho Interface Temp °C	90 Rho Flux w/ft²	120 Rho Amps	120 Rho Interface Temp °C	120 Rho Flux w/ft²	delta Td for .0010 pf & Rho 60	90	120
						75% LF							
						65°C - Copper Conductor - Concentric Strand							
500	69	516	48	23.0	458	51	18.1	417	54	15.0	0.1	0.1	0.1
500	103	532	47	22.2	473	51	17.7	431	53	14.7	0.1	0.1	0.1
500	138	548	46	21.4	489	50	17.0	447	53	14.3	0.1	0.1	0.1
500	207	572	45	20.0	514	49	16.1	470	52	13.5	0.1	0.1	0.1
750	69	590	49	23.3	519	53	18.1	470	55	14.8	0.1	0.1	0.2
750	103	613	48	22.6	542	52	17.7	491	54	14.5	0.1	0.1	0.2
750	138	639	48	21.7	566	51	17.1	515	54	14.1	0.1	0.1	0.2
750	207	677	47	20.3	603	50	16.1	550	53	13.5	0.1	0.1	0.2
750	Open	796	43	14.5	723	47	11.9	667	49	10.2	0.1	0.1	0.2
1000	69	646	51	23.9	565	54	18.3	509	56	14.9	0.1	0.1	0.2
1000	103	677	50	23.1	594	53	17.8	537	56	14.5	0.1	0.1	0.2
1000	138	710	49	22.3	626	53	17.2	566	55	14.1	0.1	0.1	0.2
1000	207	761	48	20.8	674	52	16.4	611	54	13.5	0.1	0.1	0.2
1000	Open	931	44	14.4	842	47	11.8	775	50	10.0	0.1	0.1	0.2
1250	69	688	52	24.3	599	55	18.4	538	57	14.9	0.1	0.1	0.2
1250	103	725	51	23.6	634	54	17.9	570	56	14.5	0.1	0.1	0.2
1250	138	765	50	22.6	670	54	17.4	604	56	14.1	0.1	0.1	0.2
1250	207	826	49	21.2	727	53	16.5	658	55	13.6	0.1	0.1	0.2
1250	Open	1044	44	14.4	941	48	11.7	864	51	9.9	0.1	0.2	0.2
1500	Open	1141	45	14.4	1026	49	11.6	940	51	9.8	0.1	0.2	0.2
1750	Open	1226	45	14.4	1100	49	11.6	1007	52	9.7	0.1	0.2	0.2
2000	Open	1300	46	14.3	1164	49	11.5	1064	52	9.6	0.1	0.2	0.2
2250	Open	1361	46	14.4	1216	50	11.5	1110	52	9.6	0.1	0.2	0.2
2500	Open	1419	46	14.3	1266	50	11.4	1155	53	9.5	0.1	0.2	0.2

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - 1 Circuit - Three Cables - Spaced

25°C Earth Ambient

Condr Size	Shield Res	60 Rho Amps	60 Rho Interface Temp °C	60 Rho Flux w/ft²	90 Rho Amps	90 Rho Interface Temp °C	90 Rho Flux w/ft²	120 Rho Amps	120 Rho Interface Temp °C	120 Rho Flux w/ft²	delta Td for .0010 pf & Rho 60	90	120
						100% LF							
						65°C - Copper Conductor - Concentric Strand							
500	69	463	51	18.4	402	55	14.0	360	57	11.3	0.1	0.1	0.1
500	103	478	51	18.0	416	54	13.7	374	56	11.0	0.1	0.1	0.1
500	138	494	50	17.4	432	54	13.3	388	56	10.7	0.1	0.1	0.1
500	207	516	49	16.3	452	53	12.5	407	55	10.1	0.1	0.1	0.1
750	69	524	52	18.5	452	56	13.7	404	58	11.0	0.1	0.1	0.2
750	103	547	52	17.9	473	55	13.5	423	57	10.7	0.1	0.1	0.2
750	138	571	51	17.4	496	55	13.1	444	57	10.5	0.1	0.1	0.2
750	207	608	51	16.4	530	54	12.4	476	56	10.1	0.1	0.1	0.2
750	Open	725	47	12.0	643	51	9.4	584	53	7.9	0.1	0.1	0.2
1000	69	570	54	18.6	489	57	13.6	434	59	10.8	0.1	0.1	0.2
1000	103	599	53	18.1	515	56	13.4	459	58	10.6	0.1	0.1	0.2
1000	138	630	53	17.6	543	56	13.0	485	58	10.3	0.1	0.1	0.2
1000	207	678	52	16.6	588	55	12.4	526	57	10.0	0.1	0.1	0.2
1000	Open	843	47	11.8	745	51	9.2	675	54	7.6	0.1	0.1	0.2
1250	69	604	55	18.6	515	58	13.6	457	59	10.7	0.1	0.1	0.2
1250	103	638	54	18.3	546	57	13.3	485	59	10.5	0.1	0.1	0.2
1250	138	675	54	17.7	579	57	13.0	515	58	10.3	0.1	0.1	0.2
1250	207	732	53	16.7	631	56	12.5	563	58	9.9	0.1	0.1	0.2
1250	Open	942	48	11.8	830	52	9.1	750	54	7.4	0.1	0.2	0.2
1500	Open	1026	49	11.7	902	52	9.0	814	55	7.4	0.1	0.2	0.2
1750	Open	1100	49	11.6	964	53	8.9	868	55	7.3	0.1	0.2	0.2
2000	Open	1163	50	11.5	1017	53	8.8	915	55	7.2	0.1	0.2	0.2
2250	Open	1214	50	11.5	1060	53	8.7	953	56	7.1	0.1	0.2	0.2
2500	Open	1264	50	11.4	1102	54	8.6	990	56	7.0	0.1	0.2	0.2

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - 1 Circuit - Three Cables - Spaced

25°C Earth Ambient

Condr Size	Shield Res	60 Rho Amps	60 Rho Interface Temp °C	60 Rho Flux w/ft²	90 Rho Amps	90 Rho Interface Temp °C	90 Rho Flux w/ft²	120 Rho Amps	120 Rho Interface Temp °C	120 Rho Flux w/ft²	delta Td for .0010 pf & Rho 60	90	120
						75% LF							
						50°C - Copper Conductor - Concentric Strand							
500	69	408	39	14.7	361	42	11.5	328	43	9.6	0.1	0.1	0.1
500	103	419	39	14.4	371	41	11.3	338	43	9.4	0.1	0.1	0.1
500	138	432	39	13.8	384	41	11.0	350	43	9.1	0.1	0.1	0.1
500	207	452	38	13.0	405	40	10.4	370	42	8.7	0.1	0.1	0.1
750	69	463	40	14.9	407	43	11.5	367	44	9.4	0.1	0.1	0.2
750	103	479	40	14.5	422	42	11.3	382	44	9.3	0.1	0.1	0.2
750	138	498	40	14.0	440	42	11.0	399	43	9.0	0.1	0.1	0.2
750	207	530	39	13.2	471	41	10.5	429	43	8.6	0.1	0.1	0.2
750	Open	644	36	9.0	584	39	7.5	539	40	6.3	0.1	0.1	0.2
1000	69	505	41	15.2	440	43	11.6	396	45	9.3	0.1	0.1	0.2
1000	103	525	41	14.9	460	43	11.4	414	44	9.2	0.1	0.1	0.2
1000	138	551	41	14.4	483	43	11.1	436	44	9.1	0.1	0.1	0.2
1000	207	592	40	13.5	523	42	10.6	473	44	8.6	0.1	0.1	0.2
1000	Open	752	37	9.0	680	39	7.4	625	41	6.3	0.1	0.1	0.2
1250	69	535	42	15.4	465	44	11.7	417	45	9.4	0.1	0.1	0.2
1250	103	560	42	15.1	488	44	11.4	438	45	9.2	0.1	0.1	0.2
1250	138	590	41	14.6	515	43	11.2	464	45	9.1	0.1	0.1	0.2
1250	207	639	41	13.8	561	43	10.6	507	44	8.6	0.1	0.1	0.2
1250	Open	842	37	9.0	759	39	7.3	697	41	6.1	0.1	0.2	0.2
1500	Open	919	37	9.0	826	40	7.3	757	41	6.1	0.1	0.2	0.2
1750	Open	986	38	9.0	884	40	7.3	809	42	6.1	0.1	0.2	0.2
2000	Open	1044	38	9.0	934	40	7.2	854	42	6.0	0.1	0.2	0.2
2250	Open	1092	38	9.0	975	41	7.2	890	42	5.9	0.1	0.2	0.2
2500	Open	1138	38	8.9	1015	41	7.1	925	42	5.9	0.1	0.2	0.2

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - 1 Circuit - Three Cables - Spaced

25°C Earth Ambient

Condr Size	Shield Res	60 Rho Amps	60 Rho Interface Temp °C	60 Rho Flux w/ft²	90 Rho Amps	90 Rho Interface Temp °C	90 Rho Flux w/ft²	120 Rho Amps	120 Rho Interface Temp °C	120 Rho Flux w/ft²	delta Td for .0010 pf & Rho 60	90	120
						100% LF							
						50°C - Copper Conductor - Concentric Strand							
500	69	365	42	11.8	317	44	8.8	283	45	7.1	0.1	0.1	0.1
500	103	375	41	11.5	326	44	8.7	292	45	7.0	0.1	0.1	0.1
500	138	388	41	11.1	338	43	8.6	303	45	6.8	0.1	0.1	0.1
500	207	408	41	10.6	357	43	8.1	321	44	6.6	0.1	0.1	0.1
750	69	411	42	11.8	354	44	8.6	315	46	6.9	0.1	0.1	0.2
750	103	426	42	11.5	367	44	8.6	328	45	6.8	0.1	0.1	0.2
750	138	444	42	11.1	385	44	8.4	344	45	6.7	0.1	0.1	0.2
750	207	475	41	10.6	413	44	8.0	370	45	6.4	0.1	0.1	0.2
750	Open	586	39	7.5	520	41	5.9	472	43	4.8	0.1	0.1	0.2
1000	69	444	43	11.8	380	45	8.6	337	46	6.8	0.1	0.1	0.2
1000	103	464	43	11.6	397	45	8.5	353	46	6.8	0.1	0.1	0.2
1000	138	487	43	11.3	419	45	8.4	373	46	6.6	0.1	0.1	0.2
1000	207	526	42	10.7	455	44	8.0	406	45	6.4	0.1	0.1	0.2
1000	Open	681	39	7.4	602	41	5.8	545	43	4.8	0.1	0.1	0.2
1250	69	468	44	11.8	399	46	8.6	353	47	6.7	0.1	0.1	0.2
1250	103	491	44	11.7	420	45	8.5	372	46	6.7	0.1	0.1	0.2
1250	138	519	43	11.3	444	45	8.3	395	46	6.6	0.1	0.1	0.2
1250	207	565	43	10.7	486	45	8.0	433	46	6.4	0.1	0.1	0.2
1250	Open	760	39	7.3	669	42	5.7	605	43	4.7	0.1	0.2	0.2
1500	Open	826	40	7.3	726	42	5.7	655	44	4.5	0.1	0.2	0.2
1750	Open	884	40	7.3	775	42	5.6	698	44	4.5	0.1	0.2	0.2
2000	Open	934	40	7.2	817	43	5.6	735	44	4.5	0.1	0.2	0.2
2250	Open	974	41	7.2	851	43	5.4	764	44	4.4	0.1	0.2	0.2
2500	Open	1013	41	7.1	883	43	5.4	793	44	4.4	0.1	0.2	0.2

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - 1 Circuit - Three Cables - Spaced

25°C Earth Ambient

Condr Size	Shield Res	60 Rho 75 LF	60 Rho 100 LF	90 Rho 75 LF	90 Rho 100 LF	120 Rho 75 LF	120 Rho 100 LF
		Total Watts/ft					
90°C - Copper Conductor - Concentric Strand							
500	69	66.9	54.2	53.3	41.3	44.2	33.3
500	103	65.1	53.1	52.0	40.4	43.5	32.7
500	138	63.2	51.7	51.0	39.6	42.8	32.1
500	207	60.8	49.4	49.1	38.2	41.3	31.1
750	69	72.6	57.8	56.8	43.4	46.8	34.7
750	103	70.8	56.6	55.7	42.8	46.0	34.4
750	138	68.8	55.5	54.6	42.2	45.4	34.0
750	207	66.1	53.5	53.0	40.9	44.3	33.0
750	Open	53.7	44.5	44.2	35.1	37.7	28.9
1000	69	78.0	61.2	60.2	45.3	49.2	36.0
1000	103	76.1	60.1	59.1	44.7	48.5	35.6
1000	138	74.1	58.9	58.0	44.1	47.8	35.4
1000	207	71.1	57.1	56.4	43.2	46.7	34.5
1000	Open	56.7	46.6	46.4	36.4	39.3	29.9
1250	69	82.1	63.6	62.7	46.7	50.9	36.8
1250	103	80.1	62.4	61.7	46.1	50.3	36.6
1250	138	78.2	61.4	60.7	45.6	49.6	36.3
1250	207	75.2	59.5	58.9	44.7	48.5	35.8
1250	Open	59.2	48.2	48.1	37.5	40.6	30.6
1500	Open	61.2	49.5	49.5	38.3	41.7	31.2
1750	Open	63.1	50.7	50.8	39.1	42.6	31.7
2000	Open	64.8	51.9	51.9	39.7	43.4	32.2
2250	Open	66.1	52.7	52.9	40.3	44.1	32.6
2500	Open	67.5	53.6	53.8	40.8	44.8	32.9

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - 1 Circuit - Three Cables - Spaced

25°C Earth Ambient

Condr Size	Shield Res	60 Rho 75 LF	60 Rho 100 LF	90 Rho 75 LF	90 Rho 100 LF	120 Rho 75 LF	120 Rho 100 LF
		Total Watts/ft					
80°C - Copper Conductor - Concentric Strand							
500	69	57.4	46.3	45.4	35.1	37.7	28.4
500	103	55.8	45.4	44.5	34.7	37.2	27.9
500	138	54.4	44.4	43.7	34.0	36.6	27.5
500	207	52.1	42.5	42.3	32.8	35.5	26.7
750	69	62.2	49.3	48.5	36.9	39.8	29.5
750	103	60.7	48.5	47.6	36.4	39.3	29.2
750	138	59.1	47.6	46.7	36.0	38.8	29.0
750	207	56.7	46.0	45.4	35.0	37.8	28.2
750	Open	45.4	37.7	37.4	29.7	31.9	24.5
1000	69	66.7	52.2	51.4	38.5	41.8	30.5
1000	103	65.1	51.3	50.6	38.1	41.4	30.3
1000	138	63.6	50.3	49.6	37.6	40.8	30.1
1000	207	61.1	48.8	48.2	36.9	39.9	29.5
1000	Open	48.0	39.5	39.3	30.8	33.3	25.3
1250	69	70.0	54.2	53.3	39.6	43.2	31.2
1250	103	68.6	53.3	52.6	39.2	42.8	31.0
1250	138	67.0	52.4	51.7	38.9	42.3	30.9
1250	207	64.5	51.0	50.4	38.2	41.5	30.5
1250	Open	50.0	40.8	40.6	31.7	34.3	25.9
1500	Open	51.8	42.0	41.9	32.4	35.2	26.4
1750	Open	53.4	42.9	43.0	33.0	36.0	26.8
2000	Open	54.7	43.8	43.9	33.6	36.7	27.2
2250	Open	56.0	44.6	44.8	34.1	37.3	27.5
2500	Open	57.1	45.4	45.5	34.5	37.9	27.9

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - 1 Circuit - Three Cables - Spaced

25°C Earth Ambient

Condr Size	Shield Res	60 Rho 75 LF	60 Rho 100 LF	90 Rho 75 LF	90 Rho 100 LF	120 Rho 75 LF	120 Rho 100 LF
		Total Watts/ft					
65°C - Copper Conductor - Concentric Strand							
500	69	42.5	34.2	33.5	25.8	27.8	20.7
500	103	41.6	33.6	32.9	25.5	27.3	20.6
500	138	40.5	32.9	32.3	25.2	27.0	20.3
500	207	38.8	31.6	31.3	24.3	26.2	19.7
750	69	46.0	36.3	35.6	27.1	29.2	21.6
750	103	44.9	35.8	35.2	26.8	28.9	21.4
750	138	44.0	35.1	34.5	26.5	28.6	21.3
750	207	42.2	34.0	33.5	25.9	27.9	20.9
750	Open	33.0	27.4	27.3	21.6	23.2	17.8
1000	69	49.3	38.4	37.7	28.3	30.6	22.3
1000	103	48.3	37.8	37.2	28.0	30.4	22.2
1000	138	47.2	37.2	36.7	27.7	30.1	22.1
1000	207	45.5	36.1	35.7	27.2	29.4	21.8
1000	Open	34.9	28.6	28.6	22.4	24.2	18.4
1250	69	51.7	39.8	39.2	29.0	31.6	22.8
1250	103	50.7	39.3	38.8	28.8	31.4	22.7
1250	138	49.7	38.8	38.2	28.5	31.0	22.6
1250	207	48.0	37.7	37.2	28.0	30.5	22.3
1250	Open	36.4	29.7	29.6	23.0	25.0	18.8
1500	Open	37.7	30.5	30.5	23.6	25.6	19.2
1750	Open	38.8	31.2	31.2	24.0	26.2	19.5
2000	Open	39.8	31.9	31.9	24.4	26.7	19.8
2250	Open	40.7	32.4	32.5	24.8	27.1	20.0
2500	Open	41.6	33.0	33.1	25.1	27.6	20.3

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - 1 Circuit - Three Cables - Spaced

25°C Earth Ambient

Condr Size	Shield Res	60 Rho 75 LF	60 Rho 100 LF	90 Rho 75 LF	90 Rho 100 LF	120 Rho 75 LF	120 Rho 100 LF
		Total Watts/ft					
50°C - Copper Conductor - Concentric Strand							
500	69	27.1	21.7	21.2	16.4	17.5	13.1
500	103	26.6	21.4	20.9	16.2	17.4	13.0
500	138	26.0	21.0	20.6	16.0	17.1	12.8
500	207	24.9	20.3	20.0	15.5	16.7	12.6
750	69	29.3	23.1	22.6	17.1	18.4	13.6
750	103	28.8	22.8	22.3	16.9	18.3	13.5
750	138	28.1	22.3	21.9	16.8	18.1	13.4
750	207	27.0	21.7	21.3	16.4	17.7	13.2
750	Open	20.6	17.1	17.0	13.5	14.5	11.1
1000	69	31.3	24.2	23.8	17.8	19.3	14.0
1000	103	30.7	24.0	23.6	17.6	19.1	13.9
1000	138	30.2	23.6	23.2	17.5	19.0	13.9
1000	207	29.1	23.0	22.7	17.2	18.6	13.7
1000	Open	21.8	17.9	17.9	14.0	15.1	11.5
1250	69	32.7	25.1	24.7	18.2	19.9	14.3
1250	103	32.2	24.8	24.5	18.2	19.8	14.3
1250	138	31.7	24.5	24.2	18.0	19.6	14.3
1250	207	30.6	23.9	23.6	17.7	19.3	14.1
1250	Open	22.8	18.6	18.5	14.4	15.6	11.8
1500	Open	23.6	19.1	19.1	14.7	16.0	12.0
1750	Open	24.2	19.5	19.5	15.0	16.4	12.2
2000	Open	24.9	19.9	19.9	15.3	16.7	12.4
2250	Open	25.4	20.3	20.3	15.5	16.9	12.5
2500	Open	26.0	20.6	20.7	15.7	17.2	12.7

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - 1 Circuit - Three Cables - Spaced

25°C Earth Ambient

Condr Size	Sheath Res	OD	Wd	Rac	Qs	Ri	Rj	Re @ 90 Rho & loss factor 75%	Re @ 90 Rho & loss factor 100%
			90°C - Copper Conductor - Concentric Strand						
500	69	2.679	0.03	27.39	1.989	1.95	0.27	2.22	3.26
500	103	2.679	0.03	27.39	1.795	1.95	0.27	2.22	3.57
500	138	2.679	0.03	27.39	1.637	1.95	0.27	2.22	3.57
500	207	2.679	0.03	27.39	1.353	1.95	0.27	2.41	3.57
750	69	2.918	0.03	18.60	2.402	1.72	0.32	2.18	3.22
750	103	2.918	0.03	18.60	2.118	1.72	0.32	2.18	3.22
750	138	2.918	0.03	18.60	1.893	1.72	0.32	2.18	3.22
750	207	2.918	0.03	18.60	1.625	1.72	0.32	2.18	3.53
750	Open	2.918	0.03	18.60	1.004	1.72	0.32	2.37	3.53
1000	69	3.107	0.03	14.30	2.763	1.56	0.30	2.15	3.19
1000	103	3.107	0.03	14.30	2.397	1.56	0.30	2.15	3.19
1000	138	3.107	0.03	14.30	2.114	1.56	0.30	2.15	3.19
1000	207	3.107	0.03	14.30	1.777	1.56	0.30	2.15	3.50
1000	Open	3.107	0.03	14.30	1.006	1.56	0.30	2.34	3.50
1250	69	3.240	0.04	11.79	3.077	1.45	0.28	2.13	3.17
1250	103	3.240	0.04	11.79	2.638	1.45	0.28	2.13	3.17
1250	138	3.240	0.04	11.79	2.303	1.45	0.28	2.13	3.17
1250	207	3.240	0.04	11.79	1.907	1.45	0.28	2.13	3.17
1250	Open	3.240	0.04	11.79	1.008	1.45	0.28	2.32	3.48
1500	Open	3.360	0.04	10.16	1.010	1.36	0.27	2.31	3.46
1750	Open	3.470	0.04	9.03	1.013	1.29	0.26	2.29	3.45
2000	Open	3.573	0.04	8.18	1.015	1.22	0.26	2.28	3.43
2250	Open	3.668	0.04	7.60	1.017	1.17	0.25	2.27	3.42
2500	Open	3.759	0.04	7.10	1.019	1.13	0.24	2.25	3.41

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1076

69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - 1 Circuit - Three Cables - Spaced

25°C Earth Ambient

Condr Size	Sheath Res	OD	Wd	Rac	Qs	Ri	Rj	Re @ 90 Rho & loss 75%	factor 100%
			80°C - Copper Conductor - Concentric Strand						
500	69	2.679	0.03	27.39	1.989	1.95	0.27	2.22	3.26
500	103	2.679	0.03	27.39	1.795	1.95	0.27	2.22	3.57
500	138	2.679	0.03	27.39	1.637	1.95	0.27	2.22	3.57
500	207	2.679	0.03	27.39	1.353	1.95	0.27	2.41	3.57
750	69	2.918	0.03	18.60	2.402	1.72	0.32	2.18	3.22
750	103	2.918	0.03	18.60	2.118	1.72	0.32	2.18	3.22
750	138	2.918	0.03	18.60	1.893	1.72	0.32	2.18	3.22
750	207	2.918	0.03	18.60	1.625	1.72	0.32	2.18	3.53
750	Open	2.918	0.03	18.60	1.004	1.72	0.32	2.37	3.53
1000	69	3.107	0.03	14.30	2.763	1.56	0.30	2.15	3.19
1000	103	3.107	0.03	14.30	2.397	1.56	0.30	2.15	3.19
1000	138	3.107	0.03	14.30	2.114	1.56	0.30	2.15	3.19
1000	207	3.107	0.03	14.30	1.777	1.56	0.30	2.15	3.50
1000	Open	3.107	0.03	14.30	1.006	1.56	0.30	2.34	3.50
1250	69	3.240	0.04	11.79	3.077	1.45	0.28	2.13	3.17
1250	103	3.240	0.04	11.79	2.638	1.45	0.28	2.13	3.17
1250	138	3.240	0.04	11.79	2.303	1.45	0.28	2.13	3.17
1250	207	3.240	0.04	11.79	1.907	1.45	0.28	2.13	3.17
1250	Open	3.240	0.04	11.79	1.008	1.45	0.28	2.32	3.48
1500	Open	3.360	0.04	10.16	1.010	1.36	0.27	2.31	3.46
1750	Open	3.470	0.04	9.03	1.013	1.29	0.26	2.29	3.45
2000	Open	3.573	0.04	8.18	1.015	1.22	0.26	2.28	3.43
2250	Open	3.668	0.04	7.60	1.017	1.17	0.25	2.27	3.42
2500	Open	3.759	0.04	7.10	1.019	1.13	0.24	2.25	3.41

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - 1 Circuit - Three Cables - Spaced

25°C Earth Ambient

Condr Size	Sheath Res	OD	Wd	Rac	Qs	Ri	Rj	Re @ 90 Rho & loss 75%	Re @ 90 Rho & factor 100%
			65°C - Copper Conductor - Concentric Strand						
500	69	2.679	0.03	27.39	1.989	1.95	0.27	2.22	3.26
500	103	2.679	0.03	27.39	1.795	1.95	0.27	2.22	3.57
500	138	2.679	0.03	27.39	1.637	1.95	0.27	2.22	3.57
500	207	2.679	0.03	27.39	1.353	1.95	0.27	2.41	3.57
750	69	2.918	0.03	18.60	2.402	1.72	0.32	2.18	3.22
750	103	2.918	0.03	18.60	2.118	1.72	0.32	2.18	3.22
750	138	2.918	0.03	18.60	1.893	1.72	0.32	2.18	3.22
750	207	2.918	0.03	18.60	1.625	1.72	0.32	2.18	3.53
750	Open	2.918	0.03	18.60	1.004	1.72	0.32	2.37	3.53
1000	69	3.107	0.03	14.30	2.763	1.56	0.30	2.15	3.19
1000	103	3.107	0.03	14.30	2.397	1.56	0.30	2.15	3.19
1000	138	3.107	0.03	14.30	2.114	1.56	0.30	2.15	3.19
1000	207	3.107	0.03	14.30	1.777	1.56	0.30	2.15	3.50
1000	Open	3.107	0.03	14.30	1.006	1.56	0.30	2.34	3.50
1250	69	3.240	0.04	11.79	3.077	1.45	0.28	2.13	3.17
1250	103	3.240	0.04	11.79	2.638	1.45	0.28	2.13	3.17
1250	138	3.240	0.04	11.79	2.303	1.45	0.28	2.13	3.17
1250	207	3.240	0.04	11.79	1.907	1.45	0.28	2.13	3.17
1250	Open	3.240	0.04	11.79	1.008	1.45	0.28	2.32	3.48
1500	Open	3.360	0.04	10.16	1.010	1.36	0.27	2.31	3.46
1750	Open	3.470	0.04	9.03	1.013	1.29	0.26	2.29	3.45
2000	Open	3.573	0.04	8.18	1.015	1.22	0.26	2.28	3.43
2250	Open	3.668	0.04	7.60	1.017	1.17	0.25	2.27	3.42
2500	Open	3.759	0.04	7.10	1.019	1.13	0.24	2.25	3.41

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1078

69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - 1 Circuit - Three Cables - Spaced

25°C Earth Ambient

Condr Size	Sheath Res	OD	Wd	Rac	Qs	Ri	Rj	Re @ 90 Rho & loss 75%	factor 100%
			50°C - Copper Conductor - Concentric Strand						
500	69	2.679	0.03	27.39	1.989	1.95	0.27	2.22	3.26
500	103	2.679	0.03	27.39	1.795	1.95	0.27	2.22	3.57
500	138	2.679	0.03	27.39	1.637	1.95	0.27	2.22	3.57
500	207	2.679	0.03	27.39	1.353	1.95	0.27	2.41	3.57
750	69	2.918	0.03	18.60	2.402	1.72	0.32	2.18	3.22
750	103	2.918	0.03	18.60	2.118	1.72	0.32	2.18	3.22
750	138	2.918	0.03	18.60	1.893	1.72	0.32	2.18	3.22
750	207	2.918	0.03	18.60	1.625	1.72	0.32	2.18	3.53
750	Open	2.918	0.03	18.60	1.004	1.72	0.32	2.37	3.53
1000	69	3.107	0.03	14.30	2.763	1.56	0.30	2.15	3.19
1000	103	3.107	0.03	14.30	2.397	1.56	0.30	2.15	3.19
1000	138	3.107	0.03	14.30	2.114	1.56	0.30	2.15	3.19
1000	207	3.107	0.03	14.30	1.777	1.56	0.30	2.15	3.50
1000	Open	3.107	0.03	14.30	1.006	1.56	0.30	2.34	3.50
1250	69	3.240	0.04	11.79	3.077	1.45	0.28	2.13	3.17
1250	103	3.240	0.04	11.79	2.638	1.45	0.28	2.13	3.17
1250	138	3.240	0.04	11.79	2.303	1.45	0.28	2.13	3.17
1250	207	3.240	0.04	11.79	1.907	1.45	0.28	2.13	3.17
1250	Open	3.240	0.04	11.79	1.008	1.45	0.28	2.32	3.48
1500	Open	3.360	0.04	10.16	1.010	1.36	0.27	2.31	3.46
1750	Open	3.470	0.04	9.03	1.013	1.29	0.26	2.29	3.45
2000	Open	3.573	0.04	8.18	1.015	1.22	0.26	2.28	3.43
2250	Open	3.668	0.04	7.60	1.017	1.17	0.25	2.27	3.42
2500	Open	3.759	0.04	7.10	1.019	1.13	0.24	2.25	3.41

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - 2 Circuits - Six Cables - Spaced

25°C Earth Ambient

Condr Size	Shield Res	60 Rho Amps	60 Rho Interface Temp °C	60 Rho Flux w/ft²	90 Rho Amps	90 Rho Interface Temp °C	90 Rho Flux w/ft²	120 Rho Amps	120 Rho Interface Temp °C	120 Rho Flux w/ft²	delta Td for .0010 pf & Rho 60	90	120
						75% LF							
						90°C - Copper Conductor - Concentric Strand							
500	69	601	65	31.2	528	71	24.1	477	74	19.7	0.1	0.1	0.2
500	103	622	64	30.1	548	70	23.4	496	73	19.1	0.1	0.1	0.2
500	138	642	63	28.9	567	69	22.5	514	72	18.5	0.1	0.1	0.2
500	207	669	61	27.2	594	67	21.5	540	71	17.8	0.1	0.1	0.2
750	69	688	67	31.4	600	73	23.8	540	76	19.4	0.1	0.2	0.2
750	103	721	66	30.2	630	72	23.2	568	75	18.8	0.1	0.2	0.2
750	138	751	65	29.1	659	71	22.5	596	74	18.3	0.1	0.2	0.2
750	207	794	63	27.4	701	69	21.3	633	73	17.4	0.1	0.2	0.2
750	Open	933	57	21.3	839	64	17.3	769	68	14.5	0.1	0.2	0.2
1000	69	755	70	31.8	654	75	24.0	586	78	19.2	0.1	0.2	0.2
1000	103	797	69	30.7	692	74	23.2	622	77	18.7	0.1	0.2	0.2
1000	138	836	67	29.6	729	73	22.5	656	76	18.2	0.1	0.2	0.2
1000	207	894	66	27.8	785	71	21.5	707	75	17.5	0.1	0.2	0.2
1000	Open	1090	58	21.1	977	65	17.0	893	69	14.1	0.1	0.2	0.2
1250	69	804	71	32.2	694	76	23.9	619	79	19.1	0.1	0.2	0.2
1250	103	854	70	31.1	739	75	23.3	662	78	18.7	0.1	0.2	0.2
1250	138	901	69	29.9	782	74	22.5	702	77	18.2	0.1	0.2	0.2
1250	207	971	67	28.2	850	73	21.6	761	76	17.3	0.1	0.2	0.2
1250	Open	1224	60	21.1	1093	66	16.9	998	70	14.0	0.1	0.2	0.2
1500	Open	1338	60	21.0	1191	67	16.7	1086	71	13.9	0.1	0.2	0.2
1750	Open	1437	61	21.0	1275	67	16.5	1162	71	13.8	0.1	0.2	0.3
2000	Open	1526	62	21.0	1351	68	16.4	1230	72	13.6	0.2	0.2	0.3
2250	Open	1597	62	20.8	1414	68	16.3	1284	72	13.4	0.2	0.2	0.3
2500	Open	1665	63	20.7	1473	69	16.2	1336	73	13.3	0.2	0.2	0.3

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - 2 Circuits - Six Cables - Spaced

25°C Earth Ambient

Condr Size	Shield Res	60 Rho Amps	60 Rho Interface Temp °C	60 Rho Flux w/ft²	90 Rho Amps	90 Rho Interface Temp °C	90 Rho Flux w/ft²	120 Rho Amps	120 Rho Interface Temp °C	120 Rho Flux w/ft²	delta Td for .0010 pf & Rho 60	90	120
						100% LF							
						90°C - Copper Conductor - Concentric Strand							
500	69	529	71	24.1	455	76	17.8	406	79	14.3	0.1	0.1	0.2
500	103	549	70	23.4	474	75	17.5	423	78	14.0	0.1	0.1	0.2
500	138	568	69	22.7	491	74	17.0	439	77	13.5	0.1	0.1	0.2
500	207	595	67	21.5	516	73	16.3	462	76	13.0	0.1	0.1	0.2
750	69	601	73	24.0	514	77	17.5	456	80	13.7	0.1	0.2	0.2
750	103	632	72	23.3	541	77	17.1	482	79	13.5	0.1	0.2	0.2
750	138	660	71	22.5	567	76	16.6	505	79	13.2	0.1	0.2	0.2
750	207	702	69	21.3	605	75	16.0	540	78	12.7	0.1	0.2	0.2
750	Open	838	64	17.3	734	70	13.2	663	73	10.9	0.1	0.2	0.2
1000	69	654	75	24.0	556	79	17.3	492	81	13.5	0.1	0.2	0.2
1000	103	693	74	23.2	591	78	17.0	523	81	13.3	0.1	0.2	0.2
1000	138	730	73	22.6	623	77	16.5	553	80	12.9	0.1	0.2	0.2
1000	207	782	71	21.3	672	76	15.7	598	79	12.4	0.1	0.2	0.2
1000	Open	975	65	16.8	850	71	12.9	766	74	10.4	0.1	0.2	0.2
1250	69	693	76	23.9	587	80	17.2	518	82	13.4	0.1	0.2	0.2
1250	103	739	75	23.3	627	79	16.7	554	82	13.1	0.1	0.2	0.2
1250	138	782	74	22.5	665	79	16.4	589	81	12.9	0.1	0.2	0.2
1250	207	847	73	21.5	723	77	15.7	643	80	12.4	0.1	0.2	0.2
1250	Open	1089	66	16.7	948	72	12.7	852	75	10.3	0.1	0.2	0.2
1500	Open	1188	67	16.6	1030	72	12.5	924	76	10.1	0.1	0.2	0.2
1750	Open	1272	68	16.4	1102	73	12.3	986	76	9.9	0.1	0.2	0.3
2000	Open	1347	68	16.4	1165	74	12.2	1041	77	9.7	0.2	0.2	0.3
2250	Open	1408	69	16.1	1214	74	12.1	1084	77	9.6	0.2	0.2	0.3
2500	Open	1465	69	16.1	1262	75	11.9	1126	78	9.5	0.2	0.2	0.3

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - 2 Circuits - Six Cables - Spaced

25°C Earth Ambient

Condr Size	Shield Res	60 Rho Amps	60 Rho Interface Temp °C	60 Rho Flux w/ft²	90 Rho Amps	90 Rho Interface Temp °C	90 Rho Flux w/ft²	120 Rho Amps	120 Rho Interface Temp °C	120 Rho Flux w/ft²	delta Td for .0010 pf & Rho 60	90	120
						75% LF							
						80°C - Copper Conductor - Concentric Strand							
500	69	553	59	26.7	485	64	20.5	437	67	16.7	0.1	0.1	0.2
500	103	571	58	25.9	503	63	20.1	454	66	16.4	0.1	0.1	0.2
500	138	590	57	25.0	520	62	19.4	471	66	16.0	0.1	0.1	0.2
500	207	616	56	23.5	546	61	18.5	497	64	15.3	0.1	0.1	0.2
750	69	630	61	27.0	549	66	20.4	493	69	16.5	0.1	0.2	0.2
750	103	658	60	26.0	575	65	19.9	517	68	16.1	0.1	0.2	0.2
750	138	686	59	25.1	601	64	19.2	542	67	15.7	0.1	0.2	0.2
750	207	728	58	23.7	642	63	18.3	580	66	15.1	0.1	0.2	0.2
750	Open	871	52	18.1	782	58	14.7	717	61	12.3	0.1	0.2	0.2
1000	69	688	63	27.3	596	67	20.4	533	70	16.4	0.1	0.2	0.2
1000	103	725	62	26.4	629	67	19.9	564	69	16.1	0.1	0.2	0.2
1000	138	761	61	25.4	663	66	19.3	595	69	15.6	0.1	0.2	0.2
1000	207	816	60	24.0	716	65	18.4	642	68	14.9	0.1	0.2	0.2
1000	Open	1017	53	17.9	911	59	14.4	832	62	12.0	0.1	0.2	0.2
1250	69	731	65	27.6	630	69	20.5	562	71	16.3	0.1	0.2	0.2
1250	103	774	64	26.8	670	68	20.0	599	70	16.0	0.1	0.2	0.2
1250	138	818	63	25.8	709	67	19.3	635	70	15.6	0.1	0.2	0.2
1250	207	884	61	24.3	771	66	18.5	691	69	14.9	0.1	0.2	0.2
1250	Open	1140	54	17.9	1018	60	14.3	929	63	11.9	0.1	0.2	0.2
1500	Open	1245	55	17.8	1108	60	14.1	1007	64	11.7	0.1	0.2	0.2
1750	Open	1337	56	17.7	1186	61	14.0	1081	64	11.7	0.1	0.2	0.3
2000	Open	1419	56	17.7	1256	61	13.9	1143	65	11.5	0.2	0.2	0.3
2250	Open	1483	57	17.6	1313	62	13.9	1193	65	11.4	0.2	0.2	0.3
2500	Open	1546	57	17.5	1367	62	13.7	1236	65	11.2	0.2	0.2	0.3

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - 2 Circuits - Six Cables - Spaced

25°C Earth Ambient

Condr Size	Shield Res	60 Rho Amps	60 Rho Interface Temp °C	60 Rho Flux w/ft²	90 Rho Amps	90 Rho Interface Temp °C	90 Rho Flux w/ft²	120 Rho Amps	120 Rho Interface Temp °C	120 Rho Flux w/ft²	delta Td for .0010 pf & Rho 60	90	120
						100% LF							
						80°C - Copper Conductor - Concentric Strand							
500	69	486	64	20.7	418	68	15.3	372	71	12.1	0.1	0.1	0.2
500	103	504	63	20.1	434	67	15.0	387	70	11.8	0.1	0.1	0.2
500	138	521	62	19.5	451	67	14.5	402	69	11.7	0.1	0.1	0.2
500	207	548	61	18.5	474	66	14.0	425	69	11.1	0.1	0.1	0.2
750	69	549	66	20.4	469	70	14.9	416	72	11.8	0.1	0.2	0.2
750	103	576	65	20.0	493	69	14.7	438	71	11.5	0.1	0.2	0.2
750	138	602	64	19.4	517	68	14.3	460	71	11.3	0.1	0.2	0.2
750	207	641	63	18.3	553	67	13.6	493	70	10.9	0.1	0.2	0.2
750	Open	782	58	14.7	685	63	11.3	619	66	9.2	0.1	0.2	0.2
1000	69	596	67	20.4	506	71	14.8	448	73	11.6	0.1	0.2	0.2
1000	103	629	67	19.9	536	70	14.5	474	72	11.3	0.1	0.2	0.2
1000	138	663	66	19.3	566	70	14.1	501	72	11.1	0.1	0.2	0.2
1000	207	714	65	18.4	612	69	13.5	544	71	10.7	0.1	0.2	0.2
1000	Open	909	59	14.3	793	64	10.9	714	67	8.9	0.1	0.2	0.2
1250	69	630	69	20.4	533	72	14.6	470	74	11.4	0.1	0.2	0.2
1250	103	669	68	19.9	567	71	14.4	501	73	11.2	0.1	0.2	0.2
1250	138	709	67	19.5	602	71	14.0	533	73	11.0	0.1	0.2	0.2
1250	207	770	66	18.5	658	70	13.4	582	72	10.6	0.1	0.2	0.2
1250	Open	1015	60	14.1	883	65	10.7	794	68	8.7	0.1	0.2	0.2
1500	Open	1106	60	14.1	959	65	10.6	860	68	8.5	0.1	0.2	0.2
1750	Open	1183	61	14.0	1025	66	10.5	917	69	8.4	0.1	0.2	0.3
2000	Open	1252	62	13.8	1082	66	10.3	967	69	8.2	0.2	0.2	0.3
2250	Open	1308	62	13.6	1127	67	10.2	1007	69	8.1	0.2	0.2	0.3
2500	Open	1360	62	13.6	1171	67	10.1	1045	70	8.0	0.2	0.2	0.3

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - 2 Circuits - Six Cables - Spaced

25°C Earth Ambient

Condr Size	Shield Res	60 Rho Interface Amps	60 Rho Interface Temp °C	60 Rho Interface Flux w/ft²	90 Rho Interface Amps	90 Rho Interface Temp °C	90 Rho Interface Flux w/ft²	120 Rho Interface Amps	120 Rho Interface Temp °C	120 Rho Interface Flux w/ft²	delta Td for .0010 pf & Rho 60	90	120
						75% LF							
						65°C - Copper Conductor - Concentric Strand							
500	69	471	50	19.8	412	54	15.3	371	56	12.4	0.1	0.1	0.2
500	103	485	50	19.4	425	53	15.0	384	55	12.1	0.1	0.1	0.2
500	138	501	49	18.7	441	53	14.5	398	55	11.8	0.1	0.1	0.2
500	207	526	48	17.7	465	52	13.8	421	54	11.3	0.1	0.1	0.2
750	69	533	52	19.9	463	55	15.1	415	57	12.2	0.1	0.2	0.2
750	103	554	51	19.5	482	55	14.8	434	57	11.9	0.1	0.2	0.2
750	138	578	51	18.8	505	54	14.4	455	56	11.7	0.1	0.2	0.2
750	207	616	50	17.8	542	53	13.7	488	55	11.1	0.1	0.2	0.2
750	Open	759	45	13.2	683	49	10.6	625	51	8.9	0.1	0.2	0.2
1000	69	579	53	20.2	500	56	15.0	447	58	12.0	0.1	0.2	0.2
1000	103	606	53	19.7	525	56	14.8	470	58	11.9	0.1	0.2	0.2
1000	138	637	52	19.1	553	55	14.4	496	57	11.6	0.1	0.2	0.2
1000	207	686	51	17.9	598	54	13.6	538	56	11.1	0.1	0.2	0.2
1000	Open	886	46	13.0	793	50	10.4	725	52	8.7	0.1	0.2	0.2
1250	69	613	54	20.4	527	57	15.1	470	59	12.0	0.1	0.2	0.2
1250	103	645	54	19.9	557	57	14.9	497	58	11.8	0.1	0.2	0.2
1250	138	681	53	19.3	589	56	14.5	526	58	11.6	0.1	0.2	0.2
1250	207	740	52	18.3	642	55	13.8	577	57	11.1	0.1	0.2	0.2
1250	Open	991	46	13.0	885	50	10.4	808	53	8.6	0.1	0.2	0.2
1500	Open	1082	47	13.0	962	51	10.2	874	53	8.5	0.1	0.2	0.2
1750	Open	1161	47	13.0	1030	51	10.2	935	54	8.4	0.1	0.2	0.3
2000	Open	1228	48	12.8	1089	51	10.2	986	54	8.3	0.2	0.2	0.3
2250	Open	1284	48	12.8	1134	52	10.0	1032	54	8.3	0.2	0.2	0.3
2500	Open	1337	48	12.7	1179	52	10.0	1068	54	8.1	0.2	0.2	0.3

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - 2 Circuits - Six Cables - Spaced

25°C Earth Ambient

Condr Size	Shield Res	60 Rho Amps	60 Rho Interface Temp °C	60 Rho Flux w/ft²	90 Rho Amps	90 Rho Interface Temp °C	90 Rho Flux w/ft²	120 Rho Amps	120 Rho Interface Temp °C	120 Rho Flux w/ft²	delta Td for .0010 pf & Rho 60	90	120
						100% LF							
						65°C - Copper Conductor - Concentric Strand							
500	69	413	54	15.3	354	57	11.3	315	58	8.8	0.1	0.1	0.2
500	103	427	53	15.0	366	56	11.1	327	58	8.8	0.1	0.1	0.2
500	138	442	53	14.5	380	56	10.8	340	58	8.7	0.1	0.1	0.2
500	207	466	52	13.8	403	55	10.4	360	57	8.3	0.1	0.1	0.2
750	69	464	55	15.1	396	58	11.0	350	59	8.6	0.1	0.2	0.2
750	103	483	55	14.8	413	57	10.9	366	59	8.5	0.1	0.2	0.2
750	138	505	54	14.4	433	57	10.6	385	59	8.4	0.1	0.2	0.2
750	207	541	53	13.7	465	56	10.1	415	58	8.1	0.1	0.2	0.2
750	Open	682	49	10.6	600	53	8.2	539	55	6.7	0.1	0.2	0.2
1000	69	500	56	15.1	424	59	10.8	375	60	8.5	0.1	0.2	0.2
1000	103	526	56	14.9	446	58	10.7	394	60	8.4	0.1	0.2	0.2
1000	138	554	55	14.4	471	58	10.4	417	59	8.2	0.1	0.2	0.2
1000	207	599	54	13.8	512	57	10.1	455	59	8.0	0.1	0.2	0.2
1000	Open	791	50	10.4	690	53	8.0	622	55	6.4	0.1	0.2	0.2
1250	69	527	57	15.0	445	59	10.7	393	61	8.4	0.1	0.2	0.2
1250	103	556	57	14.9	470	59	10.6	416	60	8.3	0.1	0.2	0.2
1250	138	589	56	14.4	499	59	10.4	441	60	8.1	0.1	0.2	0.2
1250	207	642	55	13.8	548	58	10.0	484	59	7.8	0.1	0.2	0.2
1250	Open	882	50	10.3	768	54	7.8	690	56	6.4	0.1	0.2	0.2
1500	Open	960	51	10.2	837	54	7.8	746	56	6.3	0.1	0.2	0.2
1750	Open	1027	51	10.1	889	55	7.6	795	57	6.1	0.1	0.2	0.3
2000	Open	1082	52	9.9	937	55	7.5	837	57	6.0	0.2	0.2	0.3
2250	Open	1128	52	9.9	976	55	7.4	871	57	5.9	0.2	0.2	0.3
2500	Open	1173	52	9.9	1012	56	7.3	903	57	5.8	0.2	0.2	0.3

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - 2 Circuits - Six Cables - Spaced

25°C Earth Ambient

Condr Size	Shield Res	60 Rho Amps	60 Rho Interface Temp °C	60 Rho Flux w/ft²	90 Rho Amps	90 Rho Interface Temp °C	90 Rho Flux w/ft²	120 Rho Amps	120 Rho Interface Temp °C	120 Rho Flux w/ft²	delta Td for .0010 pf & Rho 60	90	120
						75% LF							
						50°C - Copper Conductor - Concentric Strand							
500	69	372	41	12.7	325	43	9.7	292	45	7.8	0.1	0.1	0.2
500	103	381	41	12.4	333	43	9.6	300	44	7.7	0.1	0.1	0.2
500	138	393	40	12.1	345	43	9.3	311	44	7.6	0.1	0.1	0.2
500	207	414	40	11.4	365	42	8.8	330	44	7.3	0.1	0.1	0.2
750	69	417	42	12.7	362	44	9.6	324	45	7.6	0.1	0.2	0.2
750	103	431	42	12.4	375	44	9.4	336	45	7.6	0.1	0.2	0.2
750	138	449	41	12.2	392	43	9.2	352	45	7.5	0.1	0.2	0.2
750	207	480	41	11.5	421	43	8.8	379	44	7.2	0.1	0.2	0.2
750	Open	614	37	8.2	552	40	6.7	504	42	5.6	0.1	0.2	0.2
1000	69	452	43	12.8	389	45	9.5	347	46	7.6	0.1	0.2	0.2
1000	103	469	43	12.7	405	45	9.5	362	46	7.5	0.1	0.2	0.2
1000	138	492	42	12.3	426	44	9.2	382	45	7.4	0.1	0.2	0.2
1000	207	532	42	11.7	463	44	8.9	415	45	7.1	0.1	0.2	0.2
1000	Open	715	38	8.1	640	40	6.5	585	42	5.4	0.1	0.2	0.2
1250	69	476	44	12.9	409	45	9.5	364	46	7.5	0.1	0.2	0.2
1250	103	497	43	12.7	428	45	9.4	381	46	7.4	0.1	0.2	0.2
1250	138	524	43	12.4	452	45	9.2	403	46	7.3	0.1	0.2	0.2
1250	207	571	42	11.8	494	44	8.8	443	45	7.1	0.1	0.2	0.2
1250	Open	799	38	8.1	712	41	6.5	649	42	5.4	0.1	0.2	0.2
1500	Open	871	39	8.1	774	41	6.4	704	43	5.3	0.1	0.2	0.2
1750	Open	933	39	8.0	827	41	6.4	751	43	5.3	0.1	0.2	0.3
2000	Open	986	39	8.0	872	42	6.3	791	43	5.2	0.2	0.2	0.3
2250	Open	1029	39	8.0	909	42	6.2	824	43	5.1	0.2	0.2	0.3
2500	Open	1072	40	8.0	945	42	6.2	855	43	5.1	0.2	0.2	0.3

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - 2 Circuits - Six Cables - Spaced

25°C Earth Ambient

Condr Size	Shield Res	60 Rho Amps	60 Rho Interface Temp °C	60 Rho Flux w/ft²	90 Rho Amps	90 Rho Interface Temp °C	90 Rho Flux w/ft²	120 Rho Amps	120 Rho Interface Temp °C	120 Rho Flux w/ft²	delta Td for .0010 pf & Rho 60	90	120
						100% LF							
						50°C - Copper Conductor - Concentric Strand							
500	69	326	43	9.7	279	45	7.1	247	46	5.6	0.1	0.1	0.2
500	103	334	43	9.6	286	45	7.1	255	46	5.6	0.1	0.1	0.2
500	138	346	43	9.4	297	45	7.0	265	46	5.6	0.1	0.1	0.2
500	207	366	42	8.8	316	44	6.7	282	45	5.3	0.1	0.1	0.2
750	69	363	44	9.6	308	46	6.9	273	47	5.5	0.1	0.2	0.2
750	103	375	44	9.4	320	46	6.9	283	46	5.4	0.1	0.2	0.2
750	138	392	43	9.3	335	45	6.8	297	46	5.4	0.1	0.2	0.2
750	207	421	43	8.8	362	45	6.5	323	46	5.2	0.1	0.2	0.2
750	Open	550	40	6.7	485	42	5.1	436	44	4.2	0.1	0.2	0.2
1000	69	390	45	9.6	330	46	6.9	291	47	5.3	0.1	0.2	0.2
1000	103	406	45	9.5	344	46	6.8	304	47	5.3	0.1	0.2	0.2
1000	138	427	44	9.2	362	46	6.6	320	47	5.2	0.1	0.2	0.2
1000	207	463	44	8.9	395	45	6.4	350	46	5.0	0.1	0.2	0.2
1000	Open	639	40	6.5	560	43	5.0	501	44	4.1	0.1	0.2	0.2
1250	69	409	45	9.5	345	47	6.7	304	47	5.3	0.1	0.2	0.2
1250	103	427	45	9.4	361	46	6.7	318	47	5.2	0.1	0.2	0.2
1250	138	451	45	9.2	382	46	6.6	337	47	5.2	0.1	0.2	0.2
1250	207	493	44	8.8	419	46	6.4	371	47	5.0	0.1	0.2	0.2
1250	Open	710	41	6.5	619	43	4.8	555	44	3.9	0.1	0.2	0.2
1500	Open	771	41	6.4	673	43	4.9	600	45	3.9	0.1	0.2	0.2
1750	Open	823	41	6.3	714	44	4.7	639	45	3.9	0.1	0.2	0.3
2000	Open	869	42	6.3	752	44	4.7	672	45	3.7	0.2	0.2	0.3
2250	Open	905	42	6.2	782	44	4.7	698	45	3.7	0.2	0.2	0.3
2500	Open	940	42	6.1	811	44	4.6	723	45	3.7	0.2	0.2	0.3

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - 2 Circuits - Six Cables - Spaced

25°C Earth Ambient

Condr Size	Shield Res	60 Rho 75 LF	60 Rho 100 LF	90 Rho 75 LF	90 Rho 100 LF	120 Rho 75 LF	120 Rho 100 LF
		Total Watts/ft					
90°C - Copper Conductor - Concentric Strand							
500	69	114.0	88.4	88.1	65.4	71.9	52.1
500	103	111.5	86.9	86.6	64.8	71.0	51.7
500	138	109.3	85.6	85.3	64.0	70.1	51.2
500	207	105.7	83.6	83.3	62.9	68.9	50.5
750	69	121.8	93.0	92.6	68.0	75.1	53.6
750	103	119.5	91.9	91.3	67.4	74.3	53.5
750	138	117.0	90.4	90.2	66.8	73.8	53.0
750	207	113.3	88.6	88.3	65.8	72.1	52.5
750	Open	97.7	78.8	79.0	60.5	66.4	49.4
1000	69	129.3	97.1	97.1	70.2	78.0	55.0
1000	103	126.9	96.0	95.7	69.9	77.4	54.8
1000	138	124.3	94.9	94.6	69.1	76.6	54.5
1000	207	120.7	92.4	93.1	68.3	75.6	54.1
1000	Open	102.6	82.1	82.5	62.5	68.9	50.8
1250	69	134.5	100.0	100.3	71.8	79.8	56.0
1250	103	132.1	99.0	99.0	71.3	79.5	55.7
1250	138	129.7	97.8	97.8	70.8	78.8	55.6
1250	207	126.1	96.0	96.7	70.0	77.5	55.4
1250	Open	106.9	84.7	85.3	64.2	71.1	51.9
1500	Open	110.3	87.0	87.4	65.4	72.7	52.7
1750	Open	113.3	88.8	89.2	66.7	74.2	53.5
2000	Open	116.1	90.5	91.0	67.7	75.5	54.1
2250	Open	118.2	91.9	92.7	68.4	76.5	54.6
2500	Open	120.2	93.1	94.2	69.2	77.5	55.1

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - 2 Circuits - Six Cables - Spaced

25°C Earth Ambient

Condr Size	Shield Res	60 Rho 75 LF	60 Rho 100 LF	90 Rho 75 LF	90 Rho 100 LF	120 Rho 75 LF	120 Rho 100 LF
		Total Watts/ft					
80°C - Copper Conductor - Concentric Strand							
500	69	97.7	75.5	75.2	55.9	61.1	44.3
500	103	95.5	74.4	74.1	55.2	60.4	44.0
500	138	93.6	73.0	72.8	54.8	59.7	43.6
500	207	90.3	71.5	71.0	53.5	58.8	43.1
750	69	104.2	79.1	79.1	57.8	63.8	45.5
750	103	102.1	78.3	78.0	57.4	63.1	45.3
750	138	100.0	77.1	76.8	56.9	62.5	45.1
750	207	97.0	75.2	75.5	56.0	61.6	44.6
750	Open	82.7	66.7	66.7	51.2	56.1	41.9
1000	69	110.1	82.7	82.7	59.7	66.2	46.8
1000	103	108.4	81.7	81.7	59.4	65.7	46.5
1000	138	106.3	80.7	80.7	58.9	65.1	46.2
1000	207	103.2	79.0	79.5	58.1	63.9	46.0
1000	Open	86.9	69.5	69.8	52.9	58.2	42.9
1250	69	114.5	85.1	85.1	61.0	67.7	47.4
1250	103	112.5	84.1	84.4	60.5	67.5	47.3
1250	138	110.8	83.3	83.3	60.1	66.9	47.2
1250	207	107.7	81.8	82.0	59.8	65.9	46.8
1250	Open	90.3	71.6	72.0	54.3	60.0	43.9
1500	Open	93.2	73.6	73.8	55.4	61.0	44.6
1750	Open	95.9	75.1	75.5	56.4	62.8	45.2
2000	Open	98.2	76.5	77.0	57.2	63.8	45.7
2250	Open	99.9	77.8	78.4	57.8	64.7	46.2
2500	Open	101.8	78.8	79.6	58.5	65.1	46.6

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - 2 Circuits - Six Cables - Spaced

25°C Earth Ambient

Condr Size	Shield Res	60 Rho 75 LF	60 Rho 100 LF	90 Rho 75 LF	90 Rho 100 LF	120 Rho 75 LF	120 Rho 100 LF
		Total Watts/ft					
65°C - Copper Conductor - Concentric Strand							
500	69	72.0	55.4	55.2	40.8	44.8	32.3
500	103	70.7	54.9	54.3	40.3	44.4	32.2
500	138	69.3	54.0	53.7	39.9	43.8	32.0
500	207	67.1	52.7	52.4	39.4	43.0	31.5
750	69	76.8	58.2	58.0	42.4	46.6	33.2
750	103	75.4	57.4	57.1	42.0	46.4	33.0
750	138	74.1	56.6	56.6	41.7	46.0	33.0
750	207	71.8	55.4	55.6	41.0	45.1	32.7
750	Open	60.0	48.5	48.7	37.6	40.8	30.4
1000	69	81.1	60.5	60.5	43.6	48.4	34.1
1000	103	79.8	60.2	59.9	43.3	48.1	33.8
1000	138	78.6	59.5	59.3	43.1	47.7	33.8
1000	207	76.3	58.2	58.1	42.6	47.0	33.7
1000	Open	63.3	50.5	50.7	38.5	42.4	31.3
1250	69	84.2	62.3	62.3	44.5	49.6	34.7
1250	103	83.0	61.7	61.9	44.2	49.4	34.6
1250	138	81.7	61.2	61.2	44.0	48.8	34.4
1250	207	79.7	60.1	60.1	43.8	48.6	34.2
1250	Open	65.7	52.1	52.4	39.5	43.7	32.0
1500	Open	67.9	53.5	53.7	40.7	44.4	32.4
1750	Open	69.7	54.6	54.9	41.0	45.3	32.8
2000	Open	71.2	55.4	56.1	41.6	46.0	33.2
2250	Open	72.7	56.1	56.7	42.1	47.0	33.6
2500	Open	74.1	57.1	57.7	42.5	47.4	33.9

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - 2 Circuits - Six Cables - Spaced

25°C Earth Ambient

Condr Size	Shield Res	60 Rho 75 LF	60 Rho 100 LF	90 Rho 75 LF	90 Rho 100 LF	120 Rho 75 LF	120 Rho 100 LF
		Total Watts/ft					
50°C - Copper Conductor - Concentric Strand							
500	69	45.8	35.2	35.0	25.8	28.3	20.3
500	103	45.1	34.7	34.5	25.5	28.0	20.3
500	138	44.1	34.3	34.1	25.3	27.7	20.2
500	207	42.7	33.4	33.2	25.0	27.2	19.9
750	69	48.4	36.7	36.5	26.5	29.3	20.9
750	103	47.9	36.3	36.3	26.5	29.2	20.7
750	138	47.0	35.9	35.9	26.3	29.0	20.7
750	207	45.6	35.1	35.1	26.0	28.5	20.8
750	Open	37.6	30.2	30.4	23.5	25.4	19.0
1000	69	51.3	38.3	38.1	27.5	30.3	21.4
1000	103	50.6	38.0	37.8	27.3	30.2	21.4
1000	138	49.9	37.6	37.4	27.1	30.1	21.2
1000	207	48.6	36.9	36.9	26.9	29.6	21.1
1000	Open	39.5	31.6	31.7	24.3	26.5	19.5
1250	69	53.1	39.3	39.3	28.0	31.1	21.8
1250	103	52.5	38.8	39.0	27.8	30.9	21.6
1250	138	51.9	38.5	38.7	27.7	30.8	21.6
1250	207	50.7	37.8	38.0	27.4	30.6	21.5
1250	Open	41.1	32.5	32.6	24.7	27.2	19.9
1500	Open	42.4	33.3	33.5	25.4	27.8	20.2
1750	Open	43.5	33.9	34.2	25.6	28.3	20.5
2000	Open	44.6	34.7	34.9	26.0	28.8	20.8
2250	Open	45.3	35.1	35.4	26.3	29.2	21.0
2500	Open	46.3	35.6	36.0	26.6	29.5	21.2

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - 2 Circuits - Six Cables - Spaced

25°C Earth Ambient

Condr Size	Sheath Res	OD	Wd	Rac	Qs	Ri	Rj	Re @ 90 loss 75%	Rho & factor 100%
			90°C - Copper Conductor - Concentric Strand						
500	69	2.679	0.03	27.39	2.026	1.95	0.27	2.96	4.45
500	103	2.679	0.03	27.39	1.835	1.95	0.27	2.96	4.45
500	138	2.679	0.03	27.39	1.675	1.95	0.27	2.96	4.45
500	207	2.679	0.03	27.39	1.476	1.95	0.27	2.96	4.45
750	69	2.918	0.03	18.60	2.457	1.72	0.32	2.92	4.41
750	103	2.918	0.03	18.60	2.184	1.72	0.32	2.91	4.41
750	138	2.918	0.03	18.60	1.948	1.72	0.32	2.92	4.41
750	207	2.918	0.03	18.60	1.670	1.72	0.32	2.91	4.41
750	Open	2.918	0.03	18.60	1.003	1.72	0.32	2.92	4.41
1000	69	3.107	0.03	14.30	2.844	1.56	0.30	2.88	4.38
1000	103	3.107	0.03	14.30	2.482	1.56	0.30	2.88	4.38
1000	138	3.107	0.03	14.30	2.190	1.56	0.30	2.88	4.38
1000	207	3.107	0.03	14.30	1.835	1.56	0.30	2.88	4.38
1000	Open	3.107	0.03	14.30	1.005	1.56	0.30	2.89	4.38
1250	69	3.240	0.04	11.79	3.177	1.45	0.28	2.86	4.36
1250	103	3.240	0.04	11.79	2.741	1.45	0.28	2.86	4.35
1250	138	3.240	0.04	11.79	2.394	1.45	0.28	2.86	4.36
1250	207	3.240	0.04	11.79	1.977	1.45	0.28	2.86	4.36
1250	Open	3.240	0.04	11.79	1.006	1.45	0.28	2.87	4.36
1500	Open	3.360	0.04	10.16	1.008	1.36	0.27	2.85	4.35
1750	Open	3.470	0.04	9.03	1.014	1.29	0.26	2.83	4.33
2000	Open	3.573	0.04	8.18	1.016	1.22	0.26	2.81	4.32
2250	Open	3.668	0.04	7.60	1.013	1.17	0.25	2.81	4.30
2500	Open	3.759	0.04	7.10	1.015	1.13	0.24	2.80	4.29

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - 2 Circuits - Six Cables - Spaced

25°C Earth Ambient

Condr Size	Sheath Res	OD	Wd	Rac	Qs	Ri	Rj	Re @ 90 Rho & loss factor 75%	100%
			80°C - Copper Conductor - Concentric Strand						
500	69	2.679	0.03	27.39	2.026	1.95	0.27	2.96	4.45
500	103	2.679	0.03	27.39	1.835	1.95	0.27	2.96	4.45
500	138	2.679	0.03	27.39	1.675	1.95	0.27	2.96	4.45
500	207	2.679	0.03	27.39	1.476	1.95	0.27	2.96	4.45
750	69	2.918	0.03	18.60	2.457	1.72	0.32	2.92	4.41
750	103	2.918	0.03	18.60	2.184	1.72	0.32	2.91	4.41
750	138	2.918	0.03	18.60	1.948	1.72	0.32	2.92	4.41
750	207	2.918	0.03	18.60	1.670	1.72	0.32	2.91	4.41
750	Open	2.918	0.03	18.60	1.003	1.72	0.32	2.92	4.41
1000	69	3.107	0.03	14.30	2.844	1.56	0.30	2.88	4.38
1000	103	3.107	0.03	14.30	2.482	1.56	0.30	2.88	4.38
1000	138	3.107	0.03	14.30	2.190	1.56	0.30	2.88	4.38
1000	207	3.107	0.03	14.30	1.835	1.56	0.30	2.88	4.38
1000	Open	3.107	0.03	14.30	1.005	1.56	0.30	2.89	4.38
1250	69	3.240	0.04	11.79	3.177	1.45	0.28	2.86	4.36
1250	103	3.240	0.04	11.79	2.741	1.45	0.28	2.86	4.35
1250	138	3.240	0.04	11.79	2.394	1.45	0.28	2.86	4.36
1250	207	3.240	0.04	11.79	1.977	1.45	0.28	2.86	4.36
1250	Open	3.240	0.04	11.79	1.006	1.45	0.28	2.87	4.36
1500	Open	3.360	0.04	10.16	1.008	1.36	0.27	2.85	4.35
1750	Open	3.470	0.04	9.03	1.014	1.29	0.26	2.83	4.33
2000	Open	3.573	0.04	8.18	1.016	1.22	0.26	2.81	4.32
2250	Open	3.668	0.04	7.60	1.013	1.17	0.25	2.81	4.30
2500	Open	3.759	0.04	7.10	1.015	1.13	0.24	2.80	4.29

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - 2 Circuits - Six Cables - Spaced

25°C Earth Ambient

Condr Size	Sheath Res	OD	Wd	Rac	Qs	Ri	Rj	Re @ 90 loss 75%	Rho & factor 100%
			65°C - Copper Conductor - Concentric Strand						
500	69	2.679	0.03	27.39	2.026	1.95	0.27	2.96	4.45
500	103	2.679	0.03	27.39	1.835	1.95	0.27	2.96	4.45
500	138	2.679	0.03	27.39	1.675	1.95	0.27	2.96	4.45
500	207	2.679	0.03	27.39	1.476	1.95	0.27	2.96	4.45
750	69	2.918	0.03	18.60	2.457	1.72	0.32	2.92	4.41
750	103	2.918	0.03	18.60	2.184	1.72	0.32	2.91	4.41
750	138	2.918	0.03	18.60	1.948	1.72	0.32	2.92	4.41
750	207	2.918	0.03	18.60	1.670	1.72	0.32	2.91	4.41
750	Open	2.918	0.03	18.60	1.003	1.72	0.32	2.92	4.41
1000	69	3.107	0.03	14.30	2.844	1.56	0.30	2.88	4.38
1000	103	3.107	0.03	14.30	2.482	1.56	0.30	2.88	4.38
1000	138	3.107	0.03	14.30	2.190	1.56	0.30	2.88	4.38
1000	207	3.107	0.03	14.30	1.835	1.56	0.30	2.88	4.38
1000	Open	3.107	0.03	14.30	1.005	1.56	0.30	2.89	4.38
1250	69	3.240	0.04	11.79	3.177	1.45	0.28	2.86	4.36
1250	103	3.240	0.04	11.79	2.741	1.45	0.28	2.86	4.35
1250	138	3.240	0.04	11.79	2.394	1.45	0.28	2.86	4.36
1250	207	3.240	0.04	11.79	1.977	1.45	0.28	2.86	4.36
1250	Open	3.240	0.04	11.79	1.006	1.45	0.28	2.87	4.36
1500	Open	3.360	0.04	10.16	1.008	1.36	0.27	2.85	4.35
1750	Open	3.470	0.04	9.03	1.014	1.29	0.26	2.83	4.33
2000	Open	3.573	0.04	8.18	1.016	1.22	0.26	2.81	4.32
2250	Open	3.668	0.04	7.60	1.013	1.17	0.25	2.81	4.30
2500	Open	3.759	0.04	7.10	1.015	1.13	0.24	2.80	4.29

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - 2 Circuits - Six Cables - Spaced

25°C Earth Ambient

Condr Size	Sheath Res	OD	Wd	Rac	Qs	Ri	Rj	Re @ 90 loss 75%	Rho & factor 100%
			50°C - Copper Conductor - Concentric Strand						
500	69	2.679	0.03	27.39	2.026	1.95	0.27	2.96	4.45
500	103	2.679	0.03	27.39	1.835	1.95	0.27	2.96	4.45
500	138	2.679	0.03	27.39	1.675	1.95	0.27	2.96	4.45
500	207	2.679	0.03	27.39	1.476	1.95	0.27	2.96	4.45
750	69	2.918	0.03	18.60	2.457	1.72	0.32	2.92	4.41
750	103	2.918	0.03	18.60	2.184	1.72	0.32	2.91	4.41
750	138	2.918	0.03	18.60	1.948	1.72	0.32	2.92	4.41
750	207	2.918	0.03	18.60	1.670	1.72	0.32	2.91	4.41
750	Open	2.918	0.03	18.60	1.003	1.72	0.32	2.92	4.41
1000	69	3.107	0.03	14.30	2.844	1.56	0.30	2.88	4.38
1000	103	3.107	0.03	14.30	2.482	1.56	0.30	2.88	4.38
1000	138	3.107	0.03	14.30	2.190	1.56	0.30	2.88	4.38
1000	207	3.107	0.03	14.30	1.835	1.56	0.30	2.88	4.38
1000	Open	3.107	0.03	14.30	1.005	1.56	0.30	2.89	4.38
1250	69	3.240	0.04	11.79	3.177	1.45	0.28	2.86	4.36
1250	103	3.240	0.04	11.79	2.741	1.45	0.28	2.86	4.35
1250	138	3.240	0.04	11.79	2.394	1.45	0.28	2.86	4.36
1250	207	3.240	0.04	11.79	1.977	1.45	0.28	2.86	4.36
1250	Open	3.240	0.04	11.79	1.006	1.45	0.28	2.87	4.36
1500	Open	3.360	0.04	10.16	1.008	1.36	0.27	2.85	4.35
1750	Open	3.470	0.04	9.03	1.014	1.29	0.26	2.83	4.33
2000	Open	3.573	0.04	8.18	1.016	1.22	0.26	2.81	4.32
2250	Open	3.668	0.04	7.60	1.013	1.17	0.25	2.81	4.30
2500	Open	3.759	0.04	7.10	1.015	1.13	0.24	2.80	4.29

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

in Unventilated Riser - Triplexed

40°C Air Ambient

Condr Size	Shield Res	No Sun 0 Ft/s	No Sun 2 Ft/s	Full Sun 0 Ft/s	Full Sun 2 Ft/s	delta Td for .0010 pf No Sun 0 Ft/s	delta Td for .0010 pf No Sun 2 Ft/s
		90°C - Copper Conductor - Concentric Strand					
500	69	469	493	400	432	0.2	0.1
500	103	481	505	410	439	0.2	0.1
500	138	487	512	416	443	0.2	0.1
500	207	494	519	421	447	0.2	0.1
750	69	556	586	475	518	0.2	0.1
750	103	575	606	491	535	0.2	0.1
750	138	586	618	501	544	0.2	0.1
750	207	598	630	511	551	0.2	0.1
1000	69	620	656	530	579	0.2	0.2
1000	103	646	682	552	603	0.2	0.2
1000	138	662	698	565	617	0.2	0.2
1000	207	678	716	580	632	0.2	0.2
1250	69	667	706	571	624	0.2	0.2
1250	103	699	739	597	653	0.2	0.2
1250	138	718	759	614	670	0.2	0.2
1250	207	738	780	631	690	0.2	0.2
1500	69	740	775	632	679	0.2	0.2
1500	103	777	813	664	713	0.2	0.2
1500	138	800	837	683	734	0.2	0.2
1500	207	825	863	705	757	0.2	0.2
1750	69	770	807	658	708	0.2	0.2
1750	103	811	850	694	745	0.2	0.2
1750	138	837	876	715	768	0.2	0.2
1750	207	865	905	739	794	0.2	0.2
2000	69	796	834	681	732	0.2	0.2
2000	103	841	881	719	773	0.2	0.2
2000	138	868	910	742	798	0.2	0.2
2000	207	899	942	769	826	0.2	0.2
2250	69	815	855	697	750	0.2	0.2
2250	103	862	904	738	793	0.2	0.2
2250	138	892	935	763	820	0.2	0.2
2250	207	925	970	791	850	0.2	0.2
2500	69	833	874	713	767	0.2	0.2
2500	103	883	926	755	812	0.2	0.2
2500	138	914	959	782	841	0.2	0.2
2500	207	949	995	812	873	0.2	0.2

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

in Unventilated Riser - Triplexed

40°C Air Ambient

Condr Size	Shield Res	No Sun 0 Ft/s	No Sun 2 Ft/s	Full Sun 0 Ft/s	Full Sun 2 Ft/s
		Total Watts/ft			
90°C - Copper Conductor - Concentric Strand					
500	69	24.3	26.9	17.7	18.2
500	103	23.9	26.4	17.4	17.9
500	138	23.7	26.2	17.3	17.8
500	207	23.4	25.8	17.0	17.6
750	69	26.5	29.5	19.3	23.0
750	103	26.0	28.9	19.0	22.5
750	138	25.7	28.6	18.8	19.1
750	207	25.4	28.2	18.5	18.8
1000	69	28.4	31.8	20.7	24.8
1000	103	27.9	31.1	20.4	24.3
1000	138	27.7	30.8	20.1	24.0
1000	207	27.2	30.4	19.9	23.7
1250	69	29.9	33.5	21.9	26.2
1250	103	29.5	32.9	21.5	25.7
1250	138	29.1	32.6	21.3	25.4
1250	207	28.7	32.1	21.0	25.1
1500	69	34.2	37.5	24.9	28.8
1500	103	33.5	36.7	24.5	28.2
1500	138	33.2	36.3	24.1	27.9
1500	207	32.7	35.8	23.8	27.5
1750	69	35.4	38.9	25.8	29.9
1750	103	34.8	38.2	25.4	29.3
1750	138	34.4	37.7	25.1	29.0
1750	207	33.9	37.2	24.8	28.6
2000	69	36.5	40.1	26.7	30.9
2000	103	36.0	39.5	26.3	30.4
2000	138	35.5	39.1	25.9	30.0
2000	207	35.1	38.5	25.7	29.6
2250	69	37.4	41.2	27.4	31.7
2250	103	36.9	40.6	27.0	31.2
2250	138	36.6	40.2	26.7	30.9
2250	207	36.1	39.7	26.4	30.5
2500	69	38.4	42.2	28.1	32.5
2500	103	37.8	41.7	27.7	32.0
2500	138	37.5	41.3	27.4	31.7
2500	207	37.1	40.8	27.1	31.4

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

in Unventilated Riser - Triplexed

40°C Air Ambient

Condr Size	Sheath Res	OD	Duct ID	Wd	Rac	Qs	Qe	Ri	Rj	Rsd	Rd	Re No Sun 0 fps	Re No Sun 2 fps
					90°C - Copper Conductor - Concentric Strand								
500	69	2.679	7.98	0.03	27.80	1.268	1.320	1.95	.27	2.56	.00	1.98	1.40
500	103	2.679	7.98	0.03	27.80	1.185	1.237	1.95	.27	2.57	.00	1.98	1.40
500	138	2.679	7.98	0.03	27.80	1.139	1.192	1.95	.27	2.58	.00	1.98	1.40
500	207	2.679	7.98	0.03	27.80	1.094	1.146	1.95	.27	2.58	.00	1.99	1.40
750	69	2.918	7.98	0.03	19.26	1.391	1.478	1.72	.32	2.39	.00	1.95	1.40
750	103	2.918	7.98	0.03	19.26	1.270	1.357	1.72	.32	2.40	.00	1.95	1.40
750	138	2.918	7.98	0.03	19.26	1.204	1.291	1.72	.32	2.41	.00	1.96	1.40
750	207	2.918	7.98	0.03	19.26	1.137	1.224	1.72	.32	2.42	.00	1.96	1.40
1000	69	3.107	7.98	0.03	15.21	1.493	1.615	1.56	.30	2.27	.00	1.93	1.40
1000	103	3.107	7.98	0.03	15.21	1.341	1.462	1.56	.30	2.28	.00	1.93	1.40
1000	138	3.107	7.98	0.03	15.21	1.257	1.379	1.56	.30	2.29	.00	1.94	1.40
1000	207	3.107	7.98	0.03	15.21	1.173	1.294	1.56	.30	2.30	.00	1.94	1.40
1250	69	3.240	7.98	0.04	12.94	1.574	1.726	1.45	.28	2.20	.00	1.91	1.40
1250	103	3.240	7.98	0.04	12.94	1.396	1.548	1.45	.28	2.21	.00	1.92	1.40
1250	138	3.240	7.98	0.04	12.94	1.299	1.451	1.45	.28	2.21	.00	1.92	1.40
1250	207	3.240	7.98	0.04	12.94	1.201	1.353	1.45	.28	2.22	.00	1.93	1.40
1500	69	3.360	10.02	0.04	11.52	1.641	1.800	1.36	.27	2.01	.00	1.56	1.18
1500	103	3.360	10.02	0.04	11.52	1.442	1.602	1.36	.27	2.02	.00	1.56	1.18
1500	138	3.360	10.02	0.04	11.52	1.334	1.494	1.36	.27	2.03	.00	1.56	1.19
1500	207	3.360	10.02	0.04	11.52	1.225	1.384	1.36	.27	2.04	.00	1.57	1.19
1750	69	3.470	10.02	0.04	10.57	1.693	1.877	1.29	.26	1.96	.00	1.55	1.18
1750	103	3.470	10.02	0.04	10.57	1.478	1.662	1.29	.26	1.97	.00	1.55	1.18
1750	138	3.470	10.02	0.04	10.57	1.361	1.545	1.29	.26	1.98	.00	1.55	1.18
1750	207	3.470	10.02	0.04	10.57	1.243	1.426	1.29	.26	1.99	.00	1.56	1.18
2000	69	3.573	10.02	0.04	9.85	1.740	1.946	1.22	.26	1.91	.00	1.54	1.18
2000	103	3.573	10.02	0.04	9.85	1.510	1.716	1.22	.26	1.92	.00	1.54	1.18
2000	138	3.573	10.02	0.04	9.85	1.385	1.591	1.22	.26	1.93	.00	1.55	1.18
2000	207	3.573	10.02	0.04	9.85	1.259	1.465	1.22	.26	1.94	.00	1.55	1.18
2250	69	3.668	10.02	0.04	9.37	1.773	1.998	1.17	.25	1.87	.00	1.53	1.18
2250	103	3.668	10.02	0.04	9.37	1.533	1.758	1.17	.25	1.89	.00	1.54	1.18
2250	138	3.668	10.02	0.04	9.37	1.402	1.628	1.17	.25	1.89	.00	1.54	1.18
2250	207	3.668	10.02	0.04	9.37	1.271	1.496	1.17	.25	1.90	.00	1.54	1.18
2500	69	3.759	10.02	0.04	8.96	1.804	2.049	1.13	.24	1.84	.00	1.53	1.18
2500	103	3.759	10.02	0.04	8.96	1.554	1.799	1.13	.24	1.85	.00	1.53	1.18
2500	138	3.759	10.02	0.04	8.96	1.419	1.663	1.13	.24	1.86	.00	1.53	1.18
2500	207	3.759	10.02	0.04	8.96	1.282	1.526	1.13	.24	1.87	.00	1.54	1.18

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1098

69 kV Shielded Single Conductor Unfilled X L P E Power Cable

in Underground Duct Bank - 1 Circuit - Three Cables - 12 in Spacing

25°C Earth Ambient

Condr Size	Shield Res	60 Rho 75 LF	60 Rho 100 LF	90 Rho 75 LF	90 Rho 100 LF	120 Rho 75 LF	120 Rho 100 LF	delta Td for .0010 pf & Rho 60	90	120
		90°C - Aluminum Conductor - Concentric Strand								
500	69	447	418	420	383	397	355	0.1	0.2	0.2
500	103	460	428	432	393	409	366	0.1	0.2	0.2
500	138	469	437	442	402	418	374	0.1	0.2	0.2
500	207	481	449	454	414	430	386	0.1	0.2	0.2
750	69	531	493	496	450	467	416	0.1	0.2	0.2
750	103	551	512	516	467	487	432	0.1	0.2	0.2
750	138	568	527	532	482	502	446	0.1	0.2	0.2
750	207	588	546	552	501	521	465	0.1	0.2	0.2
1000	69	597	552	556	500	521	461	0.2	0.2	0.2
1000	103	625	578	583	525	547	484	0.2	0.2	0.2
1000	138	648	598	605	545	569	503	0.2	0.2	0.2
1000	207	677	626	632	571	596	528	0.2	0.2	0.2
1000	Open	763	711	718	653	679	607	0.2	0.2	0.2
1250	69	649	597	602	540	563	496	0.2	0.2	0.2
1250	103	684	631	635	571	596	525	0.2	0.2	0.2
1250	138	714	656	664	595	622	548	0.2	0.2	0.2
1250	207	750	691	699	628	657	580	0.2	0.2	0.2
1250	Open	864	803	811	735	766	682	0.2	0.2	0.2
1500	69	691	635	640	572	598	525	0.2	0.2	0.2
1500	103	733	675	680	609	636	559	0.2	0.2	0.2
1500	138	769	705	713	638	668	586	0.2	0.2	0.2
1500	207	813	747	755	677	708	623	0.2	0.2	0.2
1500	Open	955	885	894	808	843	749	0.2	0.2	0.2
1750	69	728	667	672	599	627	549	0.2	0.2	0.3
1750	103	776	712	717	641	670	587	0.2	0.2	0.3
1750	138	816	747	755	674	706	618	0.2	0.2	0.3
1750	207	868	795	805	719	753	661	0.2	0.2	0.3
1750	Open	1037	959	969	874	912	808	0.2	0.2	0.3
2000	Open	1112	1026	1037	933	975	862	0.2	0.2	0.3
2250	Open	1175	1082	1094	984	1027	907	0.2	0.2	0.3
2500	Open	1237	1138	1150	1032	1079	951	0.2	0.2	0.3

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

in Underground Duct Bank - 1 Circuit - Three Cables - 12 in Spacing

25°C Earth Ambient

Condr Size	Shield Res	60 Rho 75 LF	60 Rho 100 LF	90 Rho 75 LF	90 Rho 100 LF	120 Rho 75 LF	120 Rho 100 LF
		Total Watts/ft					
90°C - Aluminum Conductor - Concentric Strand							
500	69	40.5	35.4	35.8	29.8	32.0	25.6
500	103	39.9	34.5	35.2	29.1	31.6	25.3
500	138	39.1	33.9	34.7	28.7	31.1	24.9
500	207	38.1	33.2	33.9	28.2	30.5	24.6
750	69	43.9	37.9	38.3	31.6	34.0	27.0
750	103	43.0	37.1	37.7	30.9	33.6	26.5
750	138	42.3	36.4	37.1	30.5	33.1	26.1
750	207	41.1	35.5	36.2	29.9	32.3	25.7
1000	69	46.8	40.1	40.6	32.9	35.7	28.0
1000	103	46.0	39.3	40.0	32.5	35.2	27.6
1000	138	45.1	38.4	39.3	31.9	34.8	27.2
1000	207	43.8	37.5	38.2	31.2	34.0	26.7
1000	Open	39.9	34.6	35.3	29.2	31.6	25.3
1250	69	49.0	41.5	42.2	34.0	36.9	28.7
1250	103	48.1	40.9	41.4	33.5	36.5	28.4
1250	138	47.4	40.0	41.0	32.9	36.0	27.9
1250	207	45.8	38.9	39.8	32.2	35.2	27.4
1250	Open	41.4	35.8	36.5	30.0	32.6	25.8
1500	69	50.7	42.8	43.5	34.8	38.0	29.3
1500	103	49.8	42.3	42.9	34.4	37.5	29.0
1500	138	49.1	41.3	42.3	33.9	37.1	28.6
1500	207	47.6	40.2	41.1	33.0	36.1	28.0
1500	Open	42.8	36.8	37.5	30.7	33.4	26.4
1750	69	52.3	43.9	44.6	35.4	38.8	29.8
1750	103	51.4	43.3	43.9	35.1	38.3	29.5
1750	138	50.6	42.4	43.3	34.5	37.9	29.1
1750	207	49.1	41.2	42.3	33.7	37.0	28.5
1750	Open	44.0	37.7	38.5	31.3	34.1	26.8
2000	Open	45.1	38.4	39.3	31.8	34.7	27.2
2250	Open	46.1	39.2	40.0	32.4	35.3	27.5
2500	Open	47.0	39.8	40.7	32.8	35.8	27.9

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1100

69 kV Shielded Single Conductor Unfilled X L P E Power Cable

in Underground Duct Bank - 1 Circuit - Three Cables - 12 in Spacing

25°C Earth Ambient

Condr Size	Sheath Res	OD	Duct ID	Wd	Rac	Qs	Ri	Rj	Rsd	Rd	Re @ 90 Rho & loss factor 75%	100%
					90°C - Aluminum Conductor - Concentric Strand							
500	69	2.679	5.05	0.03	44.70	1.550	1.95	0.27	1.50	0.24	2.03	3.30
500	103	2.679	5.05	0.03	44.70	1.407	1.95	0.27	1.50	0.24	2.11	3.30
500	138	2.679	5.05	0.03	44.70	1.328	1.95	0.27	1.51	0.24	2.11	3.30
500	207	2.679	5.05	0.03	44.70	1.233	1.95	0.27	1.51	0.24	2.11	3.30
750	69	2.918	5.05	0.03	30.02	1.785	1.72	0.32	1.36	0.24	2.03	3.16
750	103	2.918	5.05	0.03	30.02	1.615	1.72	0.32	1.37	0.24	2.03	3.30
750	138	2.918	5.05	0.03	30.02	1.463	1.72	0.32	1.37	0.24	2.11	3.30
750	207	2.918	5.05	0.03	30.02	1.327	1.72	0.32	1.38	0.24	2.11	3.30
1000	69	3.107	5.05	0.03	22.74	2.000	1.56	0.30	1.27	0.24	2.03	3.16
1000	103	3.107	5.05	0.03	22.74	1.778	1.56	0.30	1.28	0.24	2.03	3.30
1000	138	3.107	5.05	0.03	22.74	1.585	1.56	0.30	1.28	0.24	2.11	3.30
1000	207	3.107	5.05	0.03	22.74	1.412	1.56	0.30	1.29	0.24	2.11	3.30
1000	Open	3.107	5.05	0.03	22.74	1.002	1.56	0.30	1.31	0.24	2.11	3.30
1250	69	3.240	5.05	0.04	18.39	2.197	1.45	0.28	1.22	0.24	2.03	3.16
1250	103	3.240	5.05	0.04	18.39	1.927	1.45	0.28	1.22	0.24	2.03	3.30
1250	138	3.240	5.05	0.04	18.39	1.696	1.45	0.28	1.23	0.24	2.11	3.30
1250	207	3.240	5.05	0.04	18.39	1.489	1.45	0.28	1.23	0.24	2.11	3.30
1250	Open	3.240	5.05	0.04	18.39	1.003	1.45	0.28	1.26	0.24	2.11	3.30
1500	69	3.360	5.05	0.04	15.55	2.377	1.36	0.27	1.17	0.24	2.03	3.16
1500	103	3.360	5.05	0.04	15.55	2.062	1.36	0.27	1.18	0.24	2.03	3.30
1500	138	3.360	5.05	0.04	15.55	1.836	1.36	0.27	1.18	0.24	2.03	3.30
1500	207	3.360	5.05	0.04	15.55	1.559	1.36	0.27	1.19	0.24	2.11	3.30
1500	Open	3.360	5.05	0.04	15.55	1.004	1.36	0.27	1.21	0.24	2.11	3.30
1750	69	3.470	5.05	0.04	13.54	2.542	1.29	0.26	1.13	0.24	2.03	3.16
1750	103	3.470	5.05	0.04	13.54	2.184	1.29	0.26	1.14	0.24	2.03	3.30
1750	138	3.470	5.05	0.04	13.54	1.931	1.29	0.26	1.14	0.24	2.03	3.30
1750	207	3.470	5.05	0.04	13.54	1.622	1.29	0.26	1.15	0.24	2.11	3.30
1750	Open	3.470	5.05	0.04	13.54	1.005	1.29	0.26	1.17	0.24	2.11	3.30
2000	Open	3.573	5.05	0.04	12.06	1.006	1.22	0.26	1.14	0.24	2.11	3.30
2250	Open	3.668	5.05	0.04	11.02	1.007	1.17	0.25	1.11	0.24	2.11	3.30
2500	Open	3.759	5.05	0.04	10.12	1.008	1.13	0.24	1.08	0.24	2.11	3.30

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

in Underground Duct Bank - 2 Circuits - Six Cables - 12 in Spacing

25°C Earth Ambient

Condr Size	Shield Res	60 Rho 75 LF	60 Rho 100 LF	90 Rho 75 LF	90 Rho 100 LF	120 Rho 75 LF	120 Rho 100 LF	delta Td for .0010 pf & Rho 60	90	120
		90°C - Aluminum Conductor - Concentric Strand								
500	69	408	366	370	322	339	291	0.2	0.2	0.3
500	103	420	377	381	332	351	300	0.2	0.2	0.3
500	138	428	385	389	340	359	308	0.2	0.2	0.3
500	207	439	396	399	350	369	317	0.2	0.2	0.3
750	69	484	431	436	377	399	339	0.2	0.3	0.3
750	103	503	448	454	393	415	354	0.2	0.3	0.3
750	138	517	462	468	406	429	366	0.2	0.3	0.3
750	207	536	479	485	421	445	380	0.2	0.3	0.3
1000	69	544	481	487	418	443	375	0.2	0.3	0.4
1000	103	569	504	511	440	466	395	0.2	0.3	0.4
1000	138	589	524	530	457	484	411	0.2	0.3	0.4
1000	207	615	547	554	479	507	431	0.2	0.3	0.4
1000	Open	686	615	621	542	571	489	0.2	0.3	0.4
1250	69	591	520	526	451	478	404	0.2	0.3	0.4
1250	103	623	550	555	478	506	428	0.2	0.3	0.4
1250	138	648	573	581	499	528	447	0.2	0.3	0.4
1250	207	680	603	611	526	557	472	0.2	0.3	0.4
1250	Open	774	692	700	608	641	548	0.2	0.3	0.4
1500	69	630	553	559	478	507	427	0.2	0.3	0.4
1500	103	668	587	594	509	540	455	0.2	0.3	0.4
1500	138	698	615	621	534	566	478	0.2	0.3	0.4
1500	207	737	651	658	566	599	508	0.2	0.3	0.4
1500	Open	852	760	769	666	703	599	0.2	0.3	0.4
1750	69	663	580	587	500	532	447	0.2	0.3	0.4
1750	103	706	620	626	536	568	479	0.2	0.3	0.4
1750	138	741	651	658	564	598	504	0.3	0.3	0.4
1750	207	786	692	700	601	637	538	0.3	0.3	0.4
1750	Open	923	820	830	717	758	645	0.3	0.3	0.4
2000	Open	986	875	886	764	807	686	0.3	0.3	0.4
2250	Open	1040	921	932	802	852	720	0.3	0.4	0.5
2500	Open	1092	966	978	840	890	753	0.3	0.4	0.5

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1102

69 kV Shielded Single Conductor Unfilled X L P E Power Cable

in Underground Duct Bank - 2 Circuits - Six Cables - 12 in Spacing

25°C Earth Ambient

		60 Rho		90 Rho		120 Rho	
		75 LF	100 LF	75 LF	100 LF	75 LF	100 LF
Condr Size	Shield Res	Total Watts/ft					
90°C - Aluminum Conductor - Concentric Strand							
500	69	65.0	52.3	53.5	40.5	44.9	33.1
500	103	64.0	51.6	52.7	40.0	44.7	32.7
500	138	62.8	50.9	51.9	39.7	44.3	32.6
500	207	61.8	50.3	51.1	39.3	43.7	32.3
750	69	69.4	55.1	56.3	42.2	47.2	34.1
750	103	68.1	54.1	55.5	41.7	46.4	33.8
750	138	67.0	53.5	54.9	41.4	46.2	33.6
750	207	65.8	52.6	53.9	40.7	45.4	33.2
1000	69	73.3	57.4	58.8	43.4	48.7	34.9
1000	103	71.7	56.3	57.8	42.9	48.1	34.6
1000	138	70.5	55.9	57.1	42.5	47.7	34.4
1000	207	69.1	54.7	56.1	42.0	47.0	34.0
1000	Open	64.6	51.9	53.0	40.4	44.8	32.9
1250	69	76.0	58.9	60.2	44.3	49.8	35.6
1250	103	74.4	58.1	59.1	43.9	49.2	35.2
1250	138	73.2	57.2	58.8	43.5	48.6	34.9
1250	207	71.5	56.3	57.8	42.9	48.0	34.6
1250	Open	66.6	53.3	54.5	41.2	45.7	33.5
1500	69	78.2	60.3	61.6	45.1	50.8	36.1
1500	103	76.7	59.2	60.7	44.6	50.2	35.7
1500	138	75.4	58.6	59.7	44.2	49.7	35.5
1500	207	73.8	57.6	58.8	43.6	48.8	35.2
1500	Open	68.3	54.4	55.7	41.8	46.6	33.9
1750	69	80.0	61.3	62.8	45.6	51.6	36.5
1750	103	78.4	60.5	61.7	45.3	50.8	36.2
1750	138	77.3	59.7	61.0	44.9	50.4	35.9
1750	207	75.5	58.6	60.0	44.3	49.7	35.5
1750	Open	69.9	55.2	56.6	42.3	47.2	34.2
2000	Open	71.1	56.0	57.5	42.8	47.7	34.5
2250	Open	72.4	56.8	58.2	43.1	48.6	34.8
2500	Open	73.4	57.5	58.9	43.5	48.8	35.0

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

in Underground Duct Bank - 2 Circuits - Six Cables - 12 in Spacing

25°C Earth Ambient

Condr Size	Sheath Res	OD	Duct ID	Wd	Rac	Qs	Ri	Rj	Rsd	Rd	Re @ 90 Rho & loss factor 75%	100%
					90°C - Aluminum Conductor - Concentric Strand							
500	69	2.679	5.05	0.03	44.70	1.456	1.95	0.27	1.45	0.24	4.00	6.34
500	103	2.679	5.05	0.03	44.70	1.353	1.95	0.27	1.45	0.24	4.00	6.34
500	138	2.679	5.05	0.03	44.70	1.279	1.95	0.27	1.45	0.24	4.00	6.34
500	207	2.679	5.05	0.03	44.70	1.194	1.95	0.27	1.46	0.24	4.00	6.34
750	69	2.918	5.05	0.03	30.02	1.646	1.72	0.32	1.32	0.24	4.00	6.34
750	103	2.918	5.05	0.03	30.02	1.496	1.72	0.32	1.32	0.24	4.00	6.34
750	138	2.918	5.05	0.03	30.02	1.391	1.72	0.32	1.33	0.24	4.00	6.34
750	207	2.918	5.05	0.03	30.02	1.271	1.72	0.32	1.33	0.24	4.00	6.34
1000	69	3.107	5.05	0.03	22.74	1.819	1.56	0.30	1.23	0.24	4.00	6.34
1000	103	3.107	5.05	0.03	22.74	1.625	1.56	0.30	1.24	0.24	4.00	6.34
1000	138	3.107	5.05	0.03	22.74	1.492	1.56	0.30	1.24	0.24	4.00	6.34
1000	207	3.107	5.05	0.03	22.74	1.340	1.56	0.30	1.25	0.24	4.00	6.34
1000	Open	3.107	5.05	0.03	22.74	1.002	1.56	0.30	1.27	0.24	4.00	6.34
1250	69	3.240	5.05	0.04	18.39	1.976	1.45	0.28	1.18	0.24	4.00	6.34
1250	103	3.240	5.05	0.04	18.39	1.741	1.45	0.28	1.19	0.24	4.00	6.34
1250	138	3.240	5.05	0.04	18.39	1.581	1.45	0.28	1.19	0.24	4.00	6.34
1250	207	3.240	5.05	0.04	18.39	1.402	1.45	0.28	1.20	0.24	4.00	6.34
1250	Open	3.240	5.05	0.04	18.39	1.003	1.45	0.28	1.21	0.24	4.00	6.34
1500	69	3.360	5.05	0.04	15.55	2.118	1.36	0.27	1.14	0.24	4.00	6.34
1500	103	3.360	5.05	0.04	15.55	1.846	1.36	0.27	1.14	0.24	4.00	6.34
1500	138	3.360	5.05	0.04	15.55	1.662	1.36	0.27	1.14	0.24	4.00	6.34
1500	207	3.360	5.05	0.04	15.55	1.457	1.36	0.27	1.15	0.24	4.00	6.34
1500	Open	3.360	5.05	0.04	15.55	1.004	1.36	0.27	1.17	0.24	4.00	6.34
1750	69	3.470	5.05	0.04	13.54	2.247	1.29	0.26	1.10	0.24	4.00	6.34
1750	103	3.470	5.05	0.04	13.54	1.940	1.29	0.26	1.10	0.24	4.00	6.34
1750	138	3.470	5.05	0.04	13.54	1.734	1.29	0.26	1.11	0.24	4.00	6.34
1750	207	3.470	5.05	0.04	13.54	1.506	1.29	0.26	1.11	0.24	4.00	6.34
1750	Open	3.470	5.05	0.04	13.54	1.005	1.29	0.26	1.13	0.24	4.00	6.34
2000	Open	3.573	5.05	0.04	12.06	1.006	1.22	0.26	1.10	0.24	4.00	6.34
2250	Open	3.668	5.05	0.04	11.02	1.007	1.17	0.25	1.07	0.24	4.00	6.34
2500	Open	3.759	5.05	0.04	10.12	1.008	1.13	0.24	1.04	0.24	4.00	6.34

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1104

69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - Triplexed - Single Circuit

25°C Earth Ambient

Condr Size	Shield Res	60 Rho Amps	60 Rho Interface Temp °C	60 Rho Flux w/ft²	90 Rho Amps	90 Rho Interface Temp °C	90 Rho Flux w/ft²	120 Rho Amps	120 Rho Interface Temp °C	120 Rho Flux w/ft²	delta Td for .0010 pf & Rho 60	90	120
						75% LF							
						90°C - Aluminum Conductor - Concentric Strand							
500	69	546	60	40.1	489	66	32.1	447	70	26.9	0.1	0.2	0.2
500	103	552	60	39.5	494	66	31.7	452	70	26.6	0.1	0.2	0.2
500	138	554	59	39.3	497	65	31.5	455	69	26.5	0.1	0.2	0.2
500	207	557	59	39.0	500	65	31.4	458	69	26.3	0.1	0.2	0.2
750	69	675	61	39.7	602	67	31.5	549	71	26.2	0.1	0.2	0.2
750	103	685	61	39.0	612	67	31.1	559	71	26.0	0.1	0.2	0.2
750	138	691	61	38.6	617	66	30.8	564	70	25.8	0.1	0.2	0.2
750	207	696	60	38.3	623	66	30.6	570	70	25.7	0.1	0.2	0.2
1000	69	785	63	39.9	697	69	31.5	634	72	26.0	0.1	0.2	0.2
1000	103	800	62	39.1	712	68	31.0	648	72	25.7	0.1	0.2	0.2
1000	138	809	62	38.7	720	68	30.7	657	71	25.5	0.1	0.2	0.2
1000	207	818	61	38.2	729	67	30.4	665	71	25.3	0.1	0.2	0.2
1250	69	877	64	40.3	776	70	31.6	704	73	26.0	0.1	0.2	0.3
1250	103	898	63	39.4	796	69	31.0	724	73	25.6	0.1	0.2	0.3
1250	138	909	63	38.9	807	69	30.7	735	72	25.4	0.1	0.2	0.3
1250	207	922	62	38.4	819	68	30.3	747	72	25.2	0.1	0.2	0.3
1500	69	957	65	40.6	843	71	31.6	764	74	25.9	0.1	0.2	0.3
1500	103	983	64	39.6	869	70	31.0	789	74	25.6	0.1	0.2	0.3
1500	138	998	64	39.1	883	70	30.7	803	73	25.4	0.1	0.2	0.3
1500	207	1014	63	38.5	899	69	30.3	818	73	25.1	0.1	0.2	0.3
1750	69	1026	66	40.8	902	72	31.6	816	75	25.9	0.2	0.2	0.3
1750	103	1057	65	39.8	933	71	31.0	845	74	25.5	0.2	0.2	0.3
1750	138	1076	65	39.2	950	70	30.6	863	74	25.2	0.2	0.2	0.3
1750	207	1095	64	38.5	969	70	30.2	881	73	25.0	0.2	0.2	0.3
2000	69	1086	67	41.0	954	72	31.6	862	76	25.8	0.2	0.2	0.3
2000	103	1123	66	39.9	989	71	30.9	895	75	25.4	0.2	0.2	0.3
2000	138	1145	65	39.3	1010	71	30.5	915	74	25.1	0.2	0.2	0.3
2000	207	1168	65	38.5	1032	70	30.1	937	74	24.9	0.2	0.2	0.3
2250	69	1137	68	41.0	996	73	31.5	899	76	25.7	0.2	0.2	0.3
2250	103	1178	67	39.9	1036	72	30.8	937	75	25.3	0.2	0.2	0.3
2250	138	1203	66	39.2	1059	71	30.4	959	75	25.0	0.2	0.2	0.3
2250	207	1229	65	38.5	1085	71	30.1	984	74	24.7	0.2	0.2	0.3
2500	69	1184	68	41.0	1036	74	31.4	935	77	25.6	0.2	0.2	0.3
2500	103	1231	67	40.0	1080	73	30.8	976	76	25.2	0.2	0.2	0.3
2500	138	1259	67	39.3	1107	72	30.4	1002	75	24.9	0.2	0.2	0.3
2500	207	1288	66	38.5	1136	71	29.9	1029	75	24.6	0.2	0.2	0.3

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - Triplexed - Single Circuit

25°C Earth Ambient

Condr Size	Shield Res	60 Rho Amps	60 Rho Interface Temp °C	60 Rho Flux w/ft²	90 Rho Amps	90 Rho Interface Temp °C	90 Rho Flux w/ft²	120 Rho Amps	120 Rho Interface Temp °C	120 Rho Flux w/ft²	delta Td for .0010 pf & Rho 60	90	120
						100% LF							
						90°C - Aluminum Conductor - Concentric Strand							
500	69	495	65	32.8	432	71	25.1	388	75	20.3	0.1	0.2	0.2
500	103	500	65	32.5	437	71	24.9	393	75	20.1	0.1	0.2	0.2
500	138	503	65	32.3	440	71	24.7	396	74	20.0	0.1	0.2	0.2
500	207	506	65	32.1	443	70	24.6	399	74	19.9	0.1	0.2	0.2
750	69	607	67	32.1	528	73	24.3	473	76	19.5	0.1	0.2	0.2
750	103	617	66	31.7	537	72	24.0	482	76	19.4	0.1	0.2	0.2
750	138	622	66	31.4	543	72	23.8	487	75	19.2	0.1	0.2	0.2
750	207	628	66	31.1	548	72	23.8	492	75	19.1	0.1	0.2	0.2
1000	69	701	69	31.8	607	74	23.9	542	77	19.1	0.1	0.2	0.2
1000	103	716	68	31.3	621	73	23.5	556	77	18.9	0.1	0.2	0.2
1000	138	724	67	31.1	629	73	23.4	563	76	18.8	0.1	0.2	0.2
1000	207	733	67	30.8	637	73	23.2	571	76	18.7	0.1	0.2	0.2
1250	69	779	70	31.8	672	75	23.7	599	78	18.9	0.1	0.2	0.3
1250	103	799	69	31.3	691	74	23.4	617	78	18.6	0.1	0.2	0.3
1250	138	811	69	30.9	701	74	23.2	627	77	18.6	0.1	0.2	0.3
1250	207	823	68	30.6	713	74	23.0	638	77	18.4	0.1	0.2	0.3
1500	69	846	71	31.7	727	76	23.5	647	79	18.6	0.1	0.2	0.3
1500	103	871	70	31.2	750	75	23.1	669	78	18.4	0.1	0.2	0.3
1500	138	885	69	30.8	764	75	23.0	682	78	18.3	0.1	0.2	0.3
1500	207	901	69	30.4	779	74	22.8	696	77	18.2	0.1	0.2	0.3
1750	69	903	72	31.6	774	77	23.3	688	79	18.5	0.2	0.2	0.3
1750	103	933	71	31.0	802	76	23.0	714	79	18.2	0.2	0.2	0.3
1750	138	951	70	30.7	819	75	22.8	730	78	18.1	0.2	0.2	0.3
1750	207	970	70	30.2	837	75	22.5	747	78	18.0	0.2	0.2	0.3
2000	69	953	72	31.5	815	77	23.1	724	80	18.3	0.2	0.2	0.3
2000	103	988	72	30.9	848	76	22.8	754	79	18.0	0.2	0.2	0.3
2000	138	1009	71	30.5	867	76	22.6	772	79	17.9	0.2	0.2	0.3
2000	207	1032	70	30.0	888	75	22.3	791	78	17.7	0.2	0.2	0.3
2250	69	993	73	31.4	849	78	22.9	753	80	18.0	0.2	0.2	0.3
2250	103	1033	72	30.7	885	77	22.6	786	80	17.8	0.2	0.2	0.3
2250	138	1057	72	30.3	907	76	22.4	806	79	17.7	0.2	0.2	0.3
2250	207	1082	71	29.9	930	76	22.1	828	79	17.5	0.2	0.2	0.3
2500	69	1032	74	31.2	880	78	22.7	780	81	17.9	0.2	0.2	0.3
2500	103	1076	73	30.5	920	77	22.3	817	80	17.7	0.2	0.2	0.3
2500	138	1103	72	30.2	945	77	22.2	839	80	17.5	0.2	0.2	0.3
2500	207	1131	71	29.7	971	76	21.9	864	79	17.4	0.2	0.2	0.3

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - Triplexed - Single Circuit

25°C Earth Ambient

Condr Size	Shield Res	60 Rho Amps	60 Rho Interface Temp °C	60 Rho Flux w/ft²	90 Rho Amps	90 Rho Interface Temp °C	90 Rho Flux w/ft²	120 Rho Amps	120 Rho Interface Temp °C	120 Rho Flux w/ft²	delta Td for .0010 pf & Rho 60	90	120
						75% LF							
						80°C - Aluminum Conductor - Concentric Strand							
500	69	510	55	34.0	456	60	27.2	417	63	22.7	0.1	0.2	0.2
500	103	515	54	33.5	461	59	26.9	422	63	22.6	0.1	0.2	0.2
500	138	517	54	33.2	464	59	26.8	425	63	22.5	0.1	0.2	0.2
500	207	520	54	33.0	467	59	26.6	428	62	22.3	0.1	0.2	0.2
750	69	629	56	33.7	560	61	26.7	511	64	22.3	0.1	0.2	0.2
750	103	639	55	33.1	570	60	26.4	520	64	22.0	0.1	0.2	0.2
750	138	644	55	32.7	575	60	26.1	526	63	21.9	0.1	0.2	0.2
750	207	650	55	32.4	581	60	25.9	531	63	21.7	0.1	0.2	0.2
1000	69	730	57	33.9	648	62	26.6	589	65	22.1	0.1	0.2	0.2
1000	103	745	57	33.2	662	62	26.3	603	65	21.8	0.1	0.2	0.2
1000	138	754	56	32.8	671	61	26.0	611	64	21.6	0.1	0.2	0.2
1000	207	762	56	32.4	679	61	25.7	620	64	21.5	0.1	0.2	0.2
1250	69	815	58	34.2	721	63	26.7	654	66	22.1	0.1	0.2	0.3
1250	103	835	58	33.5	740	62	26.3	673	66	21.8	0.1	0.2	0.3
1250	138	847	57	33.0	751	62	26.0	684	65	21.5	0.1	0.2	0.3
1250	207	859	57	32.5	763	62	25.7	695	65	21.3	0.1	0.2	0.3
1500	69	888	59	34.5	783	64	26.8	709	67	22.0	0.1	0.2	0.3
1500	103	913	59	33.7	807	63	26.3	732	66	21.7	0.1	0.2	0.3
1500	138	928	58	33.2	821	63	26.0	746	66	21.5	0.1	0.2	0.3
1500	207	944	58	32.6	837	62	25.6	761	65	21.3	0.1	0.2	0.3
1750	69	951	60	34.7	836	65	26.8	756	67	22.0	0.2	0.2	0.3
1750	103	982	59	33.8	865	64	26.3	784	67	21.6	0.2	0.2	0.3
1750	138	1000	59	33.2	883	63	25.9	801	66	21.4	0.2	0.2	0.3
1750	207	1019	58	32.7	902	63	25.6	819	66	21.2	0.2	0.2	0.3
2000	69	1006	61	34.8	883	65	26.8	798	68	21.9	0.2	0.2	0.3
2000	103	1042	60	33.9	917	64	26.3	830	67	21.5	0.2	0.2	0.3
2000	138	1063	59	33.3	937	64	25.9	849	67	21.3	0.2	0.2	0.3
2000	207	1086	59	32.7	959	63	25.5	870	66	21.0	0.2	0.2	0.3
2250	69	1052	61	34.8	921	66	26.8	831	68	21.8	0.2	0.2	0.3
2250	103	1092	60	33.9	959	65	26.2	868	68	21.5	0.2	0.2	0.3
2250	138	1116	60	33.3	982	64	25.9	889	67	21.2	0.2	0.2	0.3
2250	207	1142	59	32.7	1007	64	25.5	913	67	20.9	0.2	0.2	0.3
2500	69	1095	62	34.9	958	66	26.7	863	69	21.7	0.2	0.2	0.3
2500	103	1140	61	33.9	1000	65	26.1	904	68	21.3	0.2	0.2	0.3
2500	138	1167	60	33.3	1026	65	25.7	928	68	21.1	0.2	0.2	0.3
2500	207	1196	60	32.7	1054	64	25.4	954	67	20.8	0.2	0.2	0.3

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - Triplexed - Single Circuit

25°C Earth Ambient

Condr Size	Shield Res	60 Rho Amps	60 Rho Interface Temp °C	60 Rho Flux w/ft²	90 Rho Amps	90 Rho Interface Temp °C	90 Rho Flux w/ft²	120 Rho Amps	120 Rho Interface Temp °C	120 Rho Flux w/ft²	delta Td for .0010 pf & Rho 60	90	120
						100% LF							
						80°C - Aluminum Conductor - Concentric Strand							
500	69	461	59	27.9	403	64	21.2	362	67	17.2	0.1	0.2	0.2
500	103	466	59	27.5	408	64	21.0	367	67	17.1	0.1	0.2	0.2
500	138	469	59	27.4	411	64	20.9	369	67	17.0	0.1	0.2	0.2
500	207	472	58	27.2	413	64	20.8	372	67	16.9	0.1	0.2	0.2
750	69	565	61	27.2	491	65	20.5	440	68	16.5	0.1	0.2	0.2
750	103	575	60	26.8	501	65	20.4	449	68	16.4	0.1	0.2	0.2
750	138	580	60	26.6	506	65	20.2	454	68	16.3	0.1	0.2	0.2
750	207	586	60	26.4	511	64	20.1	459	67	16.2	0.1	0.2	0.2
1000	69	652	62	27.0	564	66	20.2	504	69	16.2	0.1	0.2	0.2
1000	103	666	61	26.6	578	66	20.0	517	69	16.0	0.1	0.2	0.2
1000	138	675	61	26.3	586	66	19.8	524	69	16.0	0.1	0.2	0.2
1000	207	683	61	26.0	594	65	19.7	532	68	15.8	0.1	0.2	0.2
1250	69	724	63	27.0	624	67	20.1	556	70	16.0	0.1	0.2	0.3
1250	103	743	62	26.5	642	67	19.8	573	70	15.8	0.1	0.2	0.3
1250	138	754	62	26.2	653	66	19.7	583	69	15.7	0.1	0.2	0.3
1250	207	766	62	25.9	664	66	19.5	594	69	15.6	0.1	0.2	0.3
1500	69	785	64	26.9	674	68	19.9	600	71	15.8	0.1	0.2	0.3
1500	103	809	63	26.4	697	68	19.6	621	70	15.6	0.1	0.2	0.3
1500	138	823	63	26.1	710	67	19.5	634	70	15.5	0.1	0.2	0.3
1500	207	839	62	25.8	725	67	19.3	647	69	15.4	0.1	0.2	0.3
1750	69	837	65	26.8	717	69	19.8	637	71	15.6	0.2	0.2	0.3
1750	103	866	64	26.4	744	68	19.5	663	71	15.5	0.2	0.2	0.3
1750	138	884	63	26.0	761	68	19.3	678	70	15.3	0.2	0.2	0.3
1750	207	902	63	25.7	778	67	19.1	694	70	15.2	0.2	0.2	0.3
2000	69	882	65	26.7	754	69	19.6	670	72	15.4	0.2	0.2	0.3
2000	103	916	64	26.2	786	69	19.3	699	71	15.3	0.2	0.2	0.3
2000	138	937	64	25.9	805	68	19.1	716	71	15.2	0.2	0.2	0.3
2000	207	959	63	25.5	825	68	18.9	735	70	15.0	0.2	0.2	0.3
2250	69	919	66	26.6	785	70	19.4	696	72	15.3	0.2	0.2	0.3
2250	103	957	65	26.1	820	69	19.1	728	71	15.1	0.2	0.2	0.3
2250	138	980	64	25.7	841	69	19.0	747	71	15.0	0.2	0.2	0.3
2250	207	1005	64	25.3	864	68	18.7	769	71	14.8	0.2	0.2	0.3
2500	69	954	66	26.5	813	70	19.3	720	72	15.1	0.2	0.2	0.3
2500	103	996	65	25.9	852	69	19.0	756	72	15.0	0.2	0.2	0.3
2500	138	1022	65	25.5	875	69	18.8	777	71	14.9	0.2	0.2	.0.3
2500	207	1050	64	25.2	901	68	18.6	801	71	14.7	0.2	0.2	0.3

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - Triplexed - Single Circuit

25°C Earth Ambient

Condr Size	Shield Res	60 Rho Amps	60 Rho Interface Temp °C	60 Rho Flux w/ft²	90 Rho Amps	90 Rho Interface Temp °C	90 Rho Flux w/ft²	120 Rho Amps	120 Rho Interface Temp °C	120 Rho Flux w/ft²	delta Td for .0010 pf & Rho 60	90	120
						75% LF							
						65°C - Aluminum Conductor - Concentric Strand							
500	69	444	47	24.8	397	50	19.9	363	53	16.6	0.1	0.2	0.2
500	103	449	46	24.4	402	50	19.6	367	53	16.4	0.1	0.2	0.2
500	138	451	46	24.3	404	50	19.5	370	52	16.4	0.1	0.2	0.2
500	207	454	46	24.1	407	50	19.3	373	52	16.3	0.1	0.2	0.2
750	69	547	48	24.6	487	51	19.5	444	54	16.2	0.1	0.2	0.2
750	103	556	47	24.2	496	51	19.2	453	53	16.0	0.1	0.2	0.2
750	138	561	47	23.9	501	51	19.1	458	53	15.9	0.1	0.2	0.2
750	207	566	47	23.6	506	50	18.9	463	53	15.8	0.1	0.2	0.2
1000	69	634	49	24.8	562	52	19.5	511	54	16.1	0.1	0.2	0.2
1000	103	647	48	24.2	575	52	19.1	524	54	15.9	0.1	0.2	0.2
1000	138	655	48	23.9	583	51	19.0	531	54	15.7	0.1	0.2	0.2
1000	207	664	48	23.6	591	51	18.7	539	53	15.6	0.1	0.2	0.2
1250	69	706	50	25.0	623	53	19.5	565	55	16.1	0.1	0.2	0.3
1250	103	724	49	24.4	641	52	19.2	583	55	15.9	0.1	0.2	0.3
1250	138	735	49	24.1	652	52	18.9	593	54	15.7	0.1	0.2	0.3
1250	207	747	48	23.7	663	52	18.7	604	54	15.5	0.1	0.2	0.3
1500	69	768	50	25.3	676	54	19.6	612	56	16.0	0.1	0.2	0.3
1500	103	791	50	24.6	698	53	19.2	633	55	15.8	0.1	0.2	0.3
1500	138	805	49	24.2	712	53	19.0	646	55	15.7	0.1	0.2	0.3
1500	207	819	49	23.8	726	52	18.7	660	54	15.5	0.1	0.2	0.3
1750	69	821	51	25.4	721	54	19.6	652	56	16.0	0.2	0.2	0.3
1750	103	849	50	24.7	748	53	19.2	677	56	15.7	0.2	0.2	0.3
1750	138	866	50	24.3	764	53	18.9	693	55	15.6	0.2	0.2	0.3
1750	207	884	49	23.9	781	53	18.7	709	55	15.4	0.2	0.2	0.3
2000	69	867	51	25.5	760	54	19.6	686	56	16.0	0.2	0.2	0.3
2000	103	900	51	24.8	791	54	19.2	716	56	15.7	0.2	0.2	0.3
2000	138	919	50	24.3	810	53	18.9	734	56	15.5	0.2	0.2	0.3
2000	207	941	50	23.8	830	53	18.6	753	55	15.4	0.2	0.2	0.3
2250	69	905	52	25.5	792	55	19.6	714	57	15.9	0.2	0.2	0.3
2250	103	942	51	24.8	827	54	19.1	747	56	15.6	0.2	0.2	0.3
2250	138	964	51	24.3	848	54	18.8	767	56	15.5	0.2	0.2	0.3
2250	207	988	50	23.9	871	53	18.6	789	55	15.2	0.2	0.2	0.3
2500	69	941	52	25.5	822	55	19.5	741	57	15.9	0.2	0.2	0.3
2500	103	982	51	24.8	860	55	19.1	777	56	15.6	0.2	0.2	0.3
2500	138	1006	51	24.3	884	54	18.8	799	56	15.4	0.2	0.2	0.3
2500	207	1033	50	23.8	910	54	18.5	824	56	15.2	0.2	0.2	0.3

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - Triplexed - Single Circuit

25°C Earth Ambient

Condr Size	Shield Res	60 Rho Amps	60 Rho Interface Temp °C	60 Rho Flux w/ft²	90 Rho Amps	90 Rho Interface Temp °C	90 Rho Flux w/ft²	120 Rho Amps	120 Rho Interface Temp °C	120 Rho Flux w/ft²	delta Td for .0010 pf & Rho 60	90	120
						100% LF							
						65°C - Aluminum Conductor - Concentric Strand							
500	69	402	50	20.3	350	54	15.5	315	56	12.5	0.1	0.2	0.2
500	103	406	50	20.0	355	53	15.4	319	56	12.4	0.1	0.2	0.2
500	138	409	50	19.9	358	53	15.3	322	55	12.4	0.1	0.2	0.2
500	207	412	49	19.8	361	53	15.2	325	55	12.3	0.1	0.2	0.2
750	69	491	51	19.9	427	54	15.0	382	57	12.0	0.1	0.2	0.2
750	103	500	51	19.5	435	54	14.8	390	56	12.0	0.1	0.2	0.2
750	138	505	50	19.4	440	54	14.8	395	56	11.9	0.1	0.2	0.2
750	207	511	50	19.2	445	54	14.6	400	56	11.8	0.1	0.2	0.2
1000	69	565	52	19.8	489	55	14.8	436	57	11.8	0.1	0.2	0.2
1000	103	579	52	19.4	501	55	14.6	448	57	11.7	0.1	0.2	0.2
1000	138	587	51	19.2	509	55	14.5	455	57	11.6	0.1	0.2	0.2
1000	207	595	51	19.0	517	54	14.3	463	57	11.5	0.1	0.2	0.2
1250	69	626	53	19.8	539	56	14.6	481	58	11.7	0.1	0.2	0.3
1250	103	644	52	19.4	556	56	14.5	496	57	11.5	0.1	0.2	0.3
1250	138	655	52	19.2	566	55	14.3	506	57	11.4	0.1	0.2	0.3
1250	207	666	52	18.9	577	55	14.2	516	57	11.4	0.1	0.2	0.3
1500	69	678	53	19.7	582	57	14.5	517	58	11.5	0.1	0.2	0.3
1500	103	700	53	19.3	603	56	14.3	537	58	11.4	0.1	0.2	0.3
1500	138	714	53	19.1	615	56	14.2	549	58	11.3	0.1	0.2	0.3
1500	207	728	52	18.8	629	55	14.0	561	57	11.2	0.1	0.2	0.3
1750	69	721	54	19.6	618	57	14.4	549	59	11.4	0.2	0.2	0.3
1750	103	749	53	19.2	643	56	14.2	572	58	11.2	0.2	0.2	0.3
1750	138	765	53	19.0	658	56	14.1	586	58	11.2	0.2	0.2	0.3
1750	207	782	53	18.7	674	56	13.9	601	58	11.1	0.2	0.2	0.3
2000	69	759	55	19.5	649	57	14.3	576	59	11.2	0.2	0.2	0.3
2000	103	791	54	19.1	677	57	14.1	602	59	11.1	0.2	0.2	0.3
2000	138	809	53	18.9	695	57	13.9	618	58	11.0	0.2	0.2	0.3
2000	207	830	53	18.6	714	56	13.8	636	58	11.0	0.2	0.2	0.3
2250	69	790	55	19.5	674	58	14.2	597	59	11.2	0.2	0.2	0.3
2250	103	825	54	19.0	706	57	14.0	626	59	11.0	0.2	0.2	0.3
2250	138	846	54	18.8	725	57	13.8	644	59	11.0	0.2	0.2	0.3
2250	207	869	53	18.5	746	56	13.6	664	58	10.8	0.2	0.2	0.3
2500	69	819	55	19.3	697	58	14.1	617	59	11.0	0.2	0.2	0.3
2500	103	857	55	19.0	732	57	13.8	649	59	10.9	0.2	0.2	0.3
2500	138	881	54	18.7	754	57	13.7	669	59	10.8	0.2	0.2	0.3
2500	207	907	54	18.4	778	57	13.5	691	58	10.7	0.2	0.2	0.3

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - Triplexed - Single Circuit

25°C Earth Ambient

Condr Size	Shield Res	60 Rho Amps	60 Rho Interface Temp °C	60 Rho Flux w/ft²	90 Rho Amps	90 Rho Interface Temp °C	90 Rho Flux w/ft²	120 Rho Amps	120 Rho Interface Temp °C	120 Rho Flux w/ft²	delta Td for .0010 pf & Rho 60	90	120
						75% LF							
						50°C - Aluminum Conductor - Concentric Strand							
500	69	358	39	15.5	320	41	12.4	293	42	10.4	0.1	0.2	0.2
500	103	363	38	15.4	324	41	12.3	297	42	10.2	0.1	0.2	0.2
500	138	365	38	15.2	327	41	12.2	299	42	10.2	0.1	0.2	0.2
500	207	368	38	15.1	329	41	12.1	302	42	10.2	0.1	0.2	0.2
750	69	441	39	15.5	392	42	12.3	357	43	10.1	0.1	0.2	0.2
750	103	449	39	15.2	400	41	12.0	365	43	10.1	0.1	0.2	0.2
750	138	453	39	15.0	404	41	12.0	369	43	10.0	0.1	0.2	0.2
750	207	458	39	14.8	409	41	11.8	374	42	9.9	0.1	0.2	0.2
1000	69	510	40	15.6	451	42	12.2	410	44	10.1	0.1	0.2	0.2
1000	103	521	40	15.3	463	42	12.0	421	43	10.0	0.1	0.2	0.2
1000	138	528	39	15.0	470	42	11.9	428	43	9.8	0.1	0.2	0.2
1000	207	536	39	14.8	477	41	11.8	435	43	9.8	0.1	0.2	0.2
1250	69	566	40	15.7	500	43	12.3	453	44	10.1	0.1	0.2	0.3
1250	103	582	40	15.4	515	42	12.0	468	44	10.0	0.1	0.2	0.3
1250	138	592	40	15.2	524	42	11.9	477	43	9.8	0.1	0.2	0.3
1250	207	602	40	14.9	534	42	11.7	486	43	9.7	0.1	0.2	0.3
1500	69	615	41	15.9	540	43	12.3	489	44	10.1	0.1	0.2	0.3
1500	103	635	40	15.5	560	43	12.0	507	44	9.9	0.1	0.2	0.3
1500	138	647	40	15.2	571	42	11.9	518	44	9.8	0.1	0.2	0.3
1500	207	660	40	14.9	584	42	11.7	531	44	9.7	0.1	0.2	0.3
1750	69	656	41	16.0	575	43	12.3	520	45	10.1	0.2	0.2	0.3
1750	103	680	41	15.5	598	43	12.1	541	44	9.8	0.2	0.2	0.3
1750	138	694	41	15.3	612	43	11.9	555	44	9.8	0.2	0.2	0.3
1750	207	710	40	15.0	627	42	11.7	569	44	9.6	0.2	0.2	0.3
2000	69	692	42	16.0	605	44	12.3	546	45	10.0	0.2	0.2	0.3
2000	103	720	41	15.6	632	43	12.1	571	44	9.8	0.2	0.2	0.3
2000	138	736	41	15.3	648	43	11.9	586	44	9.7	0.2	0.2	0.3
2000	207	755	41	15.0	666	43	11.7	603	44	9.6	0.2	0.2	0.3
2250	69	721	42	16.1	630	44	12.3	567	45	10.0	0.2	0.2	0.3
2250	103	752	41	15.6	659	43	12.0	595	45	9.8	0.2	0.2	0.3
2250	138	771	41	15.3	677	43	11.8	612	44	9.7	0.2	0.2	0.3
2250	207	792	41	15.0	697	43	11.6	631	44	9.6	0.2	0.2	0.3
2500	69	748	42	16.1	653	44	12.2	588	45	9.9	0.2	0.2	0.3
2500	103	783	42	15.6	685	44	12.0	618	45	9.7	0.2	0.2	0.3
2500	138	804	41	15.3	705	43	11.8	637	45	9.7	0.2	0.2	0.3
2500	207	827	41	15.0	728	43	11.6	658	44	9.5	0.2	0.2	0.3

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - Triplexed - Single Circuit

25°C Earth Ambient

Condr Size	Shield Res	60 Rho Amps	60 Rho Interface Temp °C	60 Rho Flux w/ft²	90 Rho Amps	90 Rho Interface Temp °C	90 Rho Flux w/ft²	120 Rho Amps	120 Rho Interface Temp °C	120 Rho Flux w/ft²	delta Td for .0010 pf & Rho 60	90	120
						100% LF							
						50°C - Aluminum Conductor - Concentric Strand							
500	69	324	41	12.8	283	43	9.7	254	44	7.8	0.1	0.2	0.2
500	103	328	41	12.6	287	43	9.6	258	44	7.8	0.1	0.2	0.2
500	138	331	40	12.5	289	43	9.5	260	44	7.7	0.1	0.2	0.2
500	207	333	40	12.4	292	43	9.5	262	44	7.7	0.1	0.2	0.2
750	69	396	41	12.5	343	44	9.4	307	45	7.6	0.1	0.2	0.2
750	103	403	41	12.3	351	43	9.3	314	45	7.5	0.1	0.2	0.2
750	138	408	41	12.2	355	43	9.2	318	45	7.4	0.1	0.2	0.2
750	207	413	41	12.0	360	43	9.2	323	44	7.4	0.1	0.2	0.2
1000	69	454	42	12.4	392	44	9.3	350	45	7.4	0.1	0.2	0.2
1000	103	466	42	12.2	403	44	9.1	360	45	7.3	0.1	0.2	0.2
1000	138	473	42	12.0	410	44	9.1	367	45	7.3	0.1	0.2	0.2
1000	207	480	41	11.9	417	43	9.0	373	45	7.2	0.1	0.2	0.2
1250	69	502	43	12.4	432	44	9.2	385	46	7.3	0.1	0.2	0.3
1250	103	518	42	12.2	446	44	9.1	398	45	7.2	0.1	0.2	0.3
1250	138	527	42	12.0	455	44	9.0	406	45	7.2	0.1	0.2	0.3
1250	207	537	42	11.9	465	44	8.9	415	45	7.1	0.1	0.2	0.3
1500	69	542	43	12.4	465	45	9.1	413	46	7.2	0.1	0.2	0.3
1500	103	562	43	12.1	483	45	9.0	430	46	7.2	0.1	0.2	0.3
1500	138	573	42	12.0	494	44	8.9	440	46	7.1	0.1	0.2	0.3
1500	207	586	42	11.8	506	44	8.8	451	45	7.0	0.1	0.2	0.3
1750	69	576	43	12.3	493	45	9.1	437	46	7.1	0.2	0.2	0.3
1750	103	599	43	12.1	514	45	8.9	457	46	7.1	0.2	0.2	0.3
1750	138	613	43	11.9	527	45	8.8	469	46	7.0	0.2	0.2	0.3
1750	207	628	42	11.7	541	44	8.7	482	46	6.9	0.2	0.2	0.3
2000	69	605	44	12.3	517	45	9.0	458	46	7.1	0.2	0.2	0.3
2000	103	632	43	12.1	541	45	8.8	480	46	7.0	0.2	0.2	0.3
2000	138	648	43	11.9	556	45	8.8	494	46	6.9	0.2	0.2	0.3
2000	207	666	43	11.7	572	45	8.6	509	46	6.9	0.2	0.2	0.3
2250	69	629	44	12.2	536	46	8.9	474	47	7.0	0.2	0.2	0.3
2250	103	658	43	11.9	562	45	8.7	499	46	6.9	0.2	0.2	0.3
2250	138	676	43	11.8	579	45	8.7	514	46	6.8	0.2	0.2	0.3
2250	207	696	43	11.6	597	45	8.5	531	46	6.8	0.2	0.2	0.3
2500	69	651	44	12.2	553	46	8.8	490	47	6.9	0.2	0.2	0.3
2500	103	683	44	11.9	583	45	8.7	516	46	6.9	0.2	0.2	0.3
2500	138	703	43	11.7	601	45	8.6	533	46	6.8	0.2	0.2	0.3
2500	207	725	43	11.5	622	45	8.5	552	46	6.7	0.2	0.2	0.3

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - Triplexed - Single Circuit

25°C Earth Ambient

Condr Size	Shield Res	60 Rho 75 LF	60 Rho 100 LF	90 Rho 75 LF	90 Rho 100 LF	120 Rho 75 LF	120 Rho 100 LF
		Total Watts/ft					
90°C - Aluminum Conductor - Concentric Strand							
500	69	44.5	36.6	35.7	27.9	29.9	22.5
500	103	44.1	36.2	35.3	27.7	29.6	22.4
500	138	43.6	36.0	35.1	27.5	29.5	22.3
500	207	43.3	35.8	34.9	27.4	29.3	22.3
750	69	48.0	38.9	38.2	29.4	31.8	23.6
750	103	47.3	38.4	37.7	29.1	31.5	23.4
750	138	46.9	38.0	37.4	29.0	31.3	23.3
750	207	46.3	37.7	37.1	28.7	31.1	23.2
1000	69	51.5	41.1	40.6	30.8	33.6	24.6
1000	103	50.5	40.5	40.0	30.5	33.2	24.4
1000	138	49.9	40.0	39.6	30.2	33.0	24.2
1000	207	49.4	39.6	39.2	30.0	32.6	24.1
1250	69	54.2	42.8	42.5	31.9	35.0	25.4
1250	103	53.1	42.1	41.7	31.5	34.6	25.1
1250	138	52.3	41.7	41.3	31.2	34.3	25.0
1250	207	51.7	41.2	40.8	30.9	34.0	24.8
1500	69	56.7	44.4	44.1	32.8	36.2	26.0
1500	103	55.4	43.5	43.3	32.3	35.7	25.7
1500	138	54.6	43.0	42.8	32.1	35.4	25.6
1500	207	53.8	42.5	42.3	31.8	35.0	25.4
1750	69	58.9	45.6	45.5	33.6	37.3	26.5
1750	103	57.4	44.7	44.7	33.1	36.7	26.2
1750	138	56.5	44.2	44.1	32.8	36.4	26.1
1750	207	55.5	43.6	43.5	32.5	36.0	25.9
2000	69	60.7	46.8	46.9	34.3	38.3	27.1
2000	103	59.2	45.8	45.9	33.8	37.6	26.7
2000	138	58.2	45.3	45.3	33.4	37.2	26.5
2000	207	57.2	44.7	44.7	33.1	36.9	26.3
2250	69	62.6	47.7	48.0	34.9	39.2	27.5
2250	103	60.8	46.8	47.1	34.4	38.5	27.2
2250	138	59.9	46.3	46.4	34.1	38.1	26.9
2250	207	58.7	45.5	45.8	33.7	37.7	26.7
2500	69	64.1	48.7	49.1	35.4	40.0	27.9
2500	103	62.4	47.7	48.1	34.9	39.3	27.6
2500	138	61.3	47.1	47.4	34.6	38.9	27.3
2500	207	60.1	46.4	46.8	34.2	38.4	27.1

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - Triplexed - Single Circuit

25°C Earth Ambient

Condr Size	Shield Res	60 Rho 75 LF	60 Rho 100 LF	90 Rho 75 LF	90 Rho 100 LF	120 Rho 75 LF	120 Rho 100 LF
		Total Watts/ft					
80°C - Aluminum Conductor - Concentric Strand							
500	69	37.9	30.9	30.3	23.7	25.3	19.1
500	103	37.4	30.6	29.9	23.5	25.1	19.0
500	138	36.9	30.4	29.8	23.4	25.0	18.9
500	207	36.7	30.2	29.6	23.2	24.9	18.8
750	69	40.8	32.9	32.4	24.9	27.0	20.0
750	103	40.1	32.5	32.0	24.7	26.6	19.9
750	138	39.7	32.2	31.6	24.5	26.5	19.8
750	207	39.3	32.0	31.4	24.3	26.3	19.6
1000	69	43.7	34.9	34.4	26.1	28.5	20.9
1000	103	42.8	34.3	33.8	25.8	28.1	20.7
1000	138	42.4	34.0	33.6	25.7	27.9	20.5
1000	207	41.8	33.6	33.2	25.4	27.7	20.4
1250	69	46.1	36.4	36.1	27.1	29.7	21.5
1250	103	45.1	35.7	35.4	26.7	29.3	21.3
1250	138	44.5	35.3	35.0	26.5	29.0	21.1
1250	207	43.8	34.9	34.6	26.2	28.7	21.0
1500	69	48.2	37.7	37.5	27.8	30.7	22.0
1500	103	46.9	36.9	36.7	27.4	30.2	21.8
1500	138	46.3	36.4	36.3	27.1	30.0	21.7
1500	207	45.6	36.0	35.9	26.9	29.7	21.5
1750	69	50.0	38.8	38.7	28.5	31.6	22.5
1750	103	48.8	38.0	37.9	28.1	31.1	22.3
1750	138	48.0	37.5	37.4	27.8	30.8	22.1
1750	207	47.2	37.0	37.0	27.5	30.5	21.9
2000	69	51.6	39.7	39.8	29.1	32.5	23.0
2000	103	50.3	38.9	39.0	28.7	32.0	22.7
2000	138	49.4	38.4	38.4	28.4	31.6	22.5
2000	207	48.5	37.9	37.9	28.1	31.2	22.3
2250	69	53.1	40.6	40.8	29.6	33.2	23.3
2250	103	51.7	39.7	39.9	29.2	32.7	23.0
2250	138	50.8	39.2	39.4	28.9	32.3	22.8
2250	207	49.9	38.6	38.8	28.6	31.9	22.7
2500	69	54.5	41.4	41.7	30.1	33.9	23.6
2500	103	53.0	40.5	40.8	29.6	33.4	23.4
2500	138	52.0	39.9	40.3	29.3	33.0	23.1
2500	207	51.0	39.3	39.6	29.0	32.5	22.9

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - Triplexed - Single Circuit

25°C Earth Ambient

Condr Size	Shield Res	60 Rho 75 LF	60 Rho 100 LF	90 Rho 75 LF	90 Rho 100 LF	120 Rho 75 LF	120 Rho 100 LF
		Total Watts/ft					
65°C - Aluminum Conductor - Concentric Strand							
500	69	27.6	22.7	22.1	17.2	18.5	13.9
500	103	27.3	22.3	21.9	17.1	18.2	13.8
500	138	26.9	22.2	21.6	17.0	18.2	13.8
500	207	26.7	22.0	21.5	16.9	18.1	13.7
750	69	29.9	24.1	23.7	18.2	19.7	14.6
750	103	29.3	23.7	23.4	18.0	19.5	14.5
750	138	29.0	23.5	23.1	17.9	19.3	14.4
750	207	28.6	23.3	22.9	17.7	19.2	14.3
1000	69	32.0	25.5	25.2	19.1	20.9	15.2
1000	103	31.3	25.1	24.7	18.8	20.5	15.0
1000	138	30.9	24.8	24.5	18.7	20.3	15.0
1000	207	30.5	24.5	24.2	18.5	20.1	14.9
1250	69	33.8	26.6	26.3	19.7	21.7	15.7
1250	103	32.9	26.1	25.8	19.4	21.4	15.5
1250	138	32.4	25.8	25.5	19.3	21.1	15.4
1250	207	32.0	25.4	25.2	19.1	20.9	15.3
1500	69	35.3	27.5	27.4	20.3	22.5	16.1
1500	103	34.4	26.9	26.8	20.0	22.1	15.9
1500	138	33.8	26.7	26.5	19.8	21.8	15.8
1500	207	33.2	26.2	26.1	19.6	21.6	15.6
1750	69	36.6	28.3	28.3	20.8	23.1	16.4
1750	103	35.6	27.8	27.7	20.5	22.7	16.2
1750	138	35.1	27.4	27.3	20.3	22.5	16.1
1750	207	34.4	26.9	26.9	20.0	22.2	16.0
2000	69	37.8	29.0	29.1	21.2	23.7	16.8
2000	103	36.8	28.4	28.4	20.9	23.3	16.5
2000	138	36.1	28.0	28.1	20.7	23.1	16.4
2000	207	35.4	27.6	27.6	20.5	22.7	16.3
2250	69	38.9	29.7	29.8	21.6	24.3	17.0
2250	103	37.8	29.0	29.2	21.3	23.8	16.8
2250	138	37.1	28.6	28.8	21.1	23.6	16.6
2250	207	36.4	28.2	28.3	20.8	23.2	16.5
2500	69	39.9	30.2	30.5	21.9	24.8	17.2
2500	103	38.8	29.6	29.8	21.6	24.3	17.0
2500	138	38.0	29.2	29.4	21.4	24.0	16.9
2500	207	37.2	28.7	28.9	21.2	23.7	16.7

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - Triplexed - Single Circuit

25°C Earth Ambient

Condr Size	Shield Res	60 Rho 75 LF	60 Rho 100 LF	90 Rho 75 LF	90 Rho 100 LF	120 Rho 75 LF	120 Rho 100 LF
		Total Watts/ft					
50°C - Aluminum Conductor - Concentric Strand							
500	69	17.3	14.2	13.8	10.8	11.6	8.7
500	103	17.1	14.0	13.6	10.7	11.5	8.7
500	138	16.9	13.9	13.6	10.6	11.4	8.6
500	207	16.8	13.8	13.4	10.6	11.3	8.5
750	69	18.8	15.2	14.9	11.4	12.3	9.2
750	103	18.4	14.9	14.6	11.3	12.2	9.1
750	138	18.2	14.8	14.5	11.2	12.1	9.0
750	207	18.0	14.6	14.3	11.1	12.0	9.0
1000	69	20.2	16.0	15.8	12.0	13.1	9.5
1000	103	19.6	15.7	15.5	11.8	12.9	9.4
1000	138	19.4	15.6	15.4	11.7	12.8	9.4
1000	207	19.1	15.4	15.2	11.6	12.6	9.3
1250	69	21.2	16.7	16.6	12.4	13.6	9.9
1250	103	20.7	16.4	16.2	12.2	13.4	9.7
1250	138	20.4	16.2	16.0	12.1	13.3	9.6
1250	207	20.0	16.0	15.8	12.0	13.1	9.6
1500	69	22.2	17.3	17.2	12.7	14.1	10.1
1500	103	21.6	17.0	16.8	12.6	13.8	10.0
1500	138	21.3	16.7	16.6	12.4	13.7	9.9
1500	207	20.9	16.5	16.4	12.3	13.5	9.8
1750	69	23.0	17.8	17.7	13.1	14.5	10.3
1750	103	22.4	17.4	17.4	12.9	14.2	10.2
1750	138	22.0	17.2	17.1	12.7	14.1	10.1
1750	207	21.6	16.9	16.8	12.6	13.9	10.0
2000	69	23.8	18.2	18.2	13.4	14.9	10.5
2000	103	23.2	17.9	17.9	13.1	14.6	10.4
2000	138	22.7	17.6	17.6	13.0	14.4	10.3
2000	207	22.2	17.3	17.3	12.8	14.2	10.2
2250	69	24.5	18.7	18.7	13.6	15.2	10.6
2250	103	23.8	18.2	18.3	13.3	14.9	10.5
2250	138	23.3	17.9	18.0	13.2	14.7	10.4
2250	207	22.8	17.7	17.7	13.0	14.5	10.3
2500	69	25.1	19.0	19.1	13.8	15.5	10.8
2500	103	24.4	18.6	18.7	13.6	15.2	10.7
2500	138	23.9	18.3	18.4	13.4	15.0	10.6
2500	207	23.3	18.0	18.1	13.3	14.8	10.5

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - Triplexed - Single Circuit

25°C Earth Ambient

Condr Size	Sheath Res	OD	Wd	Rac	Qs	Ri	Rj	Re @ 90 loss 75%	Rho & factor 100%
			90°C - Aluminum Conductor - Concentric Strand						
500	69	2.679	0.03	44.75	1.110	1.95	0.27	3.43	4.97
500	103	2.679	0.03	44.75	1.076	1.95	0.27	3.43	4.97
500	138	2.679	0.03	44.75	1.057	1.95	0.27	3.43	4.97
500	207	2.679	0.03	44.75	1.038	1.95	0.27	3.43	4.97
750	69	2.918	0.03	30.05	1.167	1.72	0.32	3.31	4.84
750	103	2.918	0.03	30.05	1.115	1.72	0.32	3.31	4.84
750	138	2.918	0.03	30.05	1.087	1.72	0.32	3.31	4.84
750	207	2.918	0.03	30.05	1.058	1.72	0.32	3.31	4.84
1000	69	3.107	0.03	22.78	1.220	1.56	0.30	3.23	4.76
1000	103	3.107	0.03	22.78	1.152	1.56	0.30	3.23	4.76
1000	138	3.107	0.03	22.78	1.114	1.56	0.30	3.23	4.76
1000	207	3.107	0.03	22.78	1.077	1.56	0.30	3.23	4.76
1250	69	3.240	0.04	18.49	1.269	1.45	0.28	3.17	4.70
1250	103	3.240	0.04	18.49	1.185	1.45	0.28	3.17	4.70
1250	138	3.240	0.04	18.49	1.140	1.45	0.28	3.17	4.70
1250	207	3.240	0.04	18.49	1.094	1.45	0.28	3.17	4.70
1500	69	3.360	0.04	15.67	1.315	1.36	0.27	3.11	4.65
1500	103	3.360	0.04	15.67	1.217	1.36	0.27	3.11	4.65
1500	138	3.360	0.04	15.67	1.164	1.36	0.27	3.11	4.65
1500	207	3.360	0.04	15.67	1.110	1.36	0.27	3.11	4.65
1750	69	3.470	0.04	13.69	1.359	1.29	0.26	3.07	4.60
1750	103	3.470	0.04	13.69	1.247	1.29	0.26	3.07	4.60
1750	138	3.470	0.04	13.69	1.186	1.29	0.26	3.07	4.60
1750	207	3.470	0.04	13.69	1.125	1.29	0.26	3.07	4.60
2000	69	3.573	0.04	12.24	1.399	1.22	0.26	3.03	4.56
2000	103	3.573	0.04	12.24	1.275	1.22	0.26	3.03	4.56
2000	138	3.573	0.04	12.24	1.207	1.22	0.26	3.03	4.56
2000	207	3.573	0.04	12.24	1.139	1.22	0.26	3.03	4.56
2250	69	3.668	0.04	11.23	1.433	1.17	0.25	2.99	4.52
2250	103	3.668	0.04	11.23	1.298	1.17	0.25	2.99	4.52
2250	138	3.668	0.04	11.23	1.225	1.17	0.25	2.99	4.52
2250	207	3.668	0.04	11.23	1.151	1.17	0.25	2.99	4.52
2500	69	3.759	0.04	10.36	1.467	1.13	0.24	2.96	4.49
2500	103	3.759	0.04	10.36	1.322	1.13	0.24	2.96	4.49
2500	138	3.759	0.04	10.36	1.242	1.13	0.24	2.96	4.49
2500	207	3.759	0.04	10.36	1.163	1.13	0.24	2.96	4.49

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - Triplexed - Single Circuit

25°C Earth Ambient

Condr Size	Sheath Res	OD	Wd	Rac	Qs	Ri	Rj	Re @ 90 Rho & loss factor 75%	100%
			80°C - Aluminum Conductor - Concentric Strand						
500	69	2.679	0.03	44.75	1.110	1.95	0.27	3.43	4.97
500	103	2.679	0.03	44.75	1.076	1.95	0.27	3.43	4.97
500	138	2.679	0.03	44.75	1.057	1.95	0.27	3.43	4.97
500	207	2.679	0.03	44.75	1.038	1.95	0.27	3.43	4.97
750	69	2.918	0.03	30.05	1.167	1.72	0.32	3.31	4.84
750	103	2.918	0.03	30.05	1.115	1.72	0.32	3.31	4.84
750	138	2.918	0.03	30.05	1.087	1.72	0.32	3.31	4.84
750	207	2.918	0.03	30.05	1.058	1.72	0.32	3.31	4.84
1000	69	3.107	0.03	22.78	1.220	1.56	0.30	3.23	4.76
1000	103	3.107	0.03	22.78	1.152	1.56	0.30	3.23	4.76
1000	138	3.107	0.03	22.78	1.114	1.56	0.30	3.23	4.76
1000	207	3.107	0.03	22.78	1.077	1.56	0.30	3.23	4.76
1250	69	3.240	0.04	18.49	1.269	1.45	0.28	3.17	4.70
1250	103	3.240	0.04	18.49	1.185	1.45	0.28	3.17	4.70
1250	138	3.240	0.04	18.49	1.140	1.45	0.28	3.17	4.70
1250	207	3.240	0.04	18.49	1.094	1.45	0.28	3.17	4.70
1500	69	3.360	0.04	15.67	1.315	1.36	0.27	3.11	4.65
1500	103	3.360	0.04	15.67	1.217	1.36	0.27	3.11	4.65
1500	138	3.360	0.04	15.67	1.164	1.36	0.27	3.11	4.65
1500	207	3.360	0.04	15.67	1.110	1.36	0.27	3.11	4.65
1750	69	3.470	0.04	13.69	1.359	1.29	0.26	3.07	4.60
1750	103	3.470	0.04	13.69	1.247	1.29	0.26	3.07	4.60
1750	138	3.470	0.04	13.69	1.186	1.29	0.26	3.07	4.60
1750	207	3.470	0.04	13.69	1.125	1.29	0.26	3.07	4.60
2000	69	3.573	0.04	12.24	1.399	1.22	0.26	3.03	4.56
2000	103	3.573	0.04	12.24	1.275	1.22	0.26	3.03	4.56
2000	138	3.573	0.04	12.24	1.207	1.22	0.26	3.03	4.56
2000	207	3.573	0.04	12.24	1.139	1.22	0.26	3.03	4.56
2250	69	3.668	0.04	11.23	1.433	1.17	0.25	2.99	4.52
2250	103	3.668	0.04	11.23	1.298	1.17	0.25	2.99	4.52
2250	138	3.668	0.04	11.23	1.225	1.17	0.25	2.99	4.52
2250	207	3.668	0.04	11.23	1.151	1.17	0.25	2.99	4.52
2500	69	3.759	0.04	10.36	1.467	1.13	0.24	2.96	4.49
2500	103	3.759	0.04	10.36	1.322	1.13	0.24	2.96	4.49
2500	138	3.759	0.04	10.36	1.242	1.13	0.24	2.96	4.49
2500	207	3.759	0.04	10.36	1.163	1.13	0.24	2.96	4.49

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1118

69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - Triplexed - Single Circuit

25°C Earth Ambient

Condr Size	Sheath Res	OD	Wd	Rac	Qs	Ri	Rj	Re @ 90 loss 75%	Rho & factor 100%
			65°C - Aluminum Conductor - Concentric Strand						
500	69	2.679	0.03	44.75	1.110	1.95	0.27	3.43	4.97
500	103	2.679	0.03	44.75	1.076	1.95	0.27	3.43	4.97
500	138	2.679	0.03	44.75	1.057	1.95	0.27	3.43	4.97
500	207	2.679	0.03	44.75	1.038	1.95	0.27	3.43	4.97
750	69	2.918	0.03	30.05	1.167	1.72	0.32	3.31	4.84
750	103	2.918	0.03	30.05	1.115	1.72	0.32	3.31	4.84
750	138	2.918	0.03	30.05	1.087	1.72	0.32	3.31	4.84
750	207	2.918	0.03	30.05	1.058	1.72	0.32	3.31	4.84
1000	69	3.107	0.03	22.78	1.220	1.56	0.30	3.23	4.76
1000	103	3.107	0.03	22.78	1.152	1.56	0.30	3.23	4.76
1000	138	3.107	0.03	22.78	1.114	1.56	0.30	3.23	4.76
1000	207	3.107	0.03	22.78	1.077	1.56	0.30	3.23	4.76
1250	69	3.240	0.04	18.49	1.269	1.45	0.28	3.17	4.70
1250	103	3.240	0.04	18.49	1.185	1.45	0.28	3.17	4.70
1250	138	3.240	0.04	18.49	1.140	1.45	0.28	3.17	4.70
1250	207	3.240	0.04	18.49	1.094	1.45	0.28	3.17	4.70
1500	69	3.360	0.04	15.67	1.315	1.36	0.27	3.11	4.65
1500	103	3.360	0.04	15.67	1.217	1.36	0.27	3.11	4.65
1500	138	3.360	0.04	15.67	1.164	1.36	0.27	3.11	4.65
1500	207	3.360	0.04	15.67	1.110	1.36	0.27	3.11	4.65
1750	69	3.470	0.04	13.69	1.359	1.29	0.26	3.07	4.60
1750	103	3.470	0.04	13.69	1.247	1.29	0.26	3.07	4.60
1750	138	3.470	0.04	13.69	1.186	1.29	0.26	3.07	4.60
1750	207	3.470	0.04	13.69	1.125	1.29	0.26	3.07	4.60
2000	69	3.573	0.04	12.24	1.399	1.22	0.26	3.03	4.56
2000	103	3.573	0.04	12.24	1.275	1.22	0.26	3.03	4.56
2000	138	3.573	0.04	12.24	1.207	1.22	0.26	3.03	4.56
2000	207	3.573	0.04	12.24	1.139	1.22	0.26	3.03	4.56
2250	69	3.668	0.04	11.23	1.433	1.17	0.25	2.99	4.52
2250	103	3.668	0.04	11.23	1.298	1.17	0.25	2.99	4.52
2250	138	3.668	0.04	11.23	1.225	1.17	0.25	2.99	4.52
2250	207	3.668	0.04	11.23	1.151	1.17	0.25	2.99	4.52
2500	69	3.759	0.04	10.36	1.467	1.13	0.24	2.96	4.49
2500	103	3.759	0.04	10.36	1.322	1.13	0.24	2.96	4.49
2500	138	3.759	0.04	10.36	1.242	1.13	0.24	2.96	4.49
2500	207	3.759	0.04	10.36	1.163	1.13	0.24	2.96	4.49

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - Triplexed - Single Circuit

25°C Earth Ambient

Condr Size	Sheath Res	OD	Wd	Rac	Qs	Ri	Rj	Re @ 90 Rho & loss factor 75%	100%
			50°C - Aluminum Conductor - Concentric Strand						
500	69	2.679	0.03	44.75	1.110	1.95	0.27	3.43	4.97
500	103	2.679	0.03	44.75	1.076	1.95	0.27	3.43	4.97
500	138	2.679	0.03	44.75	1.057	1.95	0.27	3.43	4.97
500	207	2.679	0.03	44.75	1.038	1.95	0.27	3.43	4.97
750	69	2.918	0.03	30.05	1.167	1.72	0.32	3.31	4.84
750	103	2.918	0.03	30.05	1.115	1.72	0.32	3.31	4.84
750	138	2.918	0.03	30.05	1.087	1.72	0.32	3.31	4.84
750	207	2.918	0.03	30.05	1.058	1.72	0.32	3.31	4.84
1000	69	3.107	0.03	22.78	1.220	1.56	0.30	3.23	4.76
1000	103	3.107	0.03	22.78	1.152	1.56	0.30	3.23	4.76
1000	138	3.107	0.03	22.78	1.114	1.56	0.30	3.23	4.76
1000	207	3.107	0.03	22.78	1.077	1.56	0.30	3.23	4.76
1250	69	3.240	0.04	18.49	1.269	1.45	0.28	3.17	4.70
1250	103	3.240	0.04	18.49	1.185	1.45	0.28	3.17	4.70
1250	138	3.240	0.04	18.49	1.140	1.45	0.28	3.17	4.70
1250	207	3.240	0.04	18.49	1.094	1.45	0.28	3.17	4.70
1500	69	3.360	0.04	15.67	1.315	1.36	0.27	3.11	4.65
1500	103	3.360	0.04	15.67	1.217	1.36	0.27	3.11	4.65
1500	138	3.360	0.04	15.67	1.164	1.36	0.27	3.11	4.65
1500	207	3.360	0.04	15.67	1.110	1.36	0.27	3.11	4.65
1750	69	3.470	0.04	13.69	1.359	1.29	0.26	3.07	4.60
1750	103	3.470	0.04	13.69	1.247	1.29	0.26	3.07	4.60
1750	138	3.470	0.04	13.69	1.186	1.29	0.26	3.07	4.60
1750	207	3.470	0.04	13.69	1.125	1.29	0.26	3.07	4.60
2000	69	3.573	0.04	12.24	1.399	1.22	0.26	3.03	4.56
2000	103	3.573	0.04	12.24	1.275	1.22	0.26	3.03	4.56
2000	138	3.573	0.04	12.24	1.207	1.22	0.26	3.03	4.56
2000	207	3.573	0.04	12.24	1.139	1.22	0.26	3.03	4.56
2250	69	3.668	0.04	11.23	1.433	1.17	0.25	2.99	4.52
2250	103	3.668	0.04	11.23	1.298	1.17	0.25	2.99	4.52
2250	138	3.668	0.04	11.23	1.225	1.17	0.25	2.99	4.52
2250	207	3.668	0.04	11.23	1.151	1.17	0.25	2.99	4.52
2500	69	3.759	0.04	10.36	1.467	1.13	0.24	2.96	4.49
2500	103	3.759	0.04	10.36	1.322	1.13	0.24	2.96	4.49
2500	138	3.759	0.04	10.36	1.242	1.13	0.24	2.96	4.49
2500	207	3.759	0.04	10.36	1.163	1.13	0.24	2.96	4.49

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1120

69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - Triplexed - Double Circuit

25°C Earth Ambient

Condr Size	Shield Res	60 Rho Amps	60 Rho Interface Temp °C	60 Rho Flux w/ft²	90 Rho Amps	90 Rho Interface Temp °C	90 Rho Flux w/ft²	120 Rho Amps	120 Rho Interface Temp °C	120 Rho Flux w/ft²	delta Td for .0010 pf & Rho 60	90	120
						75% LF							
						90°C - Aluminum Conductor - Concentric Strand							
500	69	490	66	32.3	430	71	24.9	388	75	20.3	0.2	0.2	0.3
500	103	496	65	31.9	435	71	24.7	393	75	20.1	0.2	0.2	0.3
500	138	498	65	31.7	438	71	24.5	396	74	20.0	0.2	0.2	0.3
500	207	501	65	31.5	441	71	24.4	399	74	20.0	0.2	0.2	0.3
750	69	601	67	31.5	526	73	24.1	473	76	19.5	0.2	0.3	0.3
750	103	611	67	31.1	535	72	23.8	482	76	19.4	0.2	0.3	0.3
750	138	617	66	30.8	540	72	23.7	487	75	19.3	0.2	0.3	0.3
750	207	622	66	30.6	546	72	23.5	493	75	19.1	0.2	0.3	0.3
1000	69	694	69	31.2	604	74	23.6	542	77	19.1	0.2	0.3	0.3
1000	103	709	68	30.8	618	73	23.4	556	77	18.9	0.2	0.3	0.3
1000	138	717	68	30.4	626	73	23.2	563	76	18.8	0.2	0.3	0.3
1000	207	726	67	30.1	634	73	23.0	571	76	18.7	0.2	0.3	0.3
1250	69	771	70	31.1	669	75	23.5	599	78	18.9	0.2	0.3	0.4
1250	103	791	69	30.6	687	74	23.2	617	78	18.6	0.2	0.3	0.4
1250	138	802	69	30.3	698	74	23.0	627	77	18.6	0.2	0.3	0.4
1250	207	815	68	30.0	710	74	22.8	638	77	18.4	0.2	0.3	0.4
1500	69	837	71	31.1	723	76	23.3	647	79	18.6	0.2	0.3	0.4
1500	103	862	70	30.5	747	75	22.9	669	78	18.4	0.2	0.3	0.4
1500	138	876	70	30.2	761	75	22.8	682	78	18.3	0.2	0.3	0.4
1500	207	892	69	29.8	775	74	22.6	696	77	18.2	0.2	0.3	0.4
1750	69	893	72	30.9	770	77	23.0	688	79	18.5	0.2	0.3	0.4
1750	103	923	71	30.4	798	76	22.8	714	79	18.2	0.2	0.3	0.4
1750	138	941	71	30.0	815	76	22.5	730	78	18.1	0.2	0.3	0.4
1750	207	960	70	29.6	833	75	22.3	747	78	18.0	0.2	0.3	0.4
2000	69	942	73	30.8	811	77	22.8	724	80	18.3	0.2	0.3	0.4
2000	103	977	72	30.2	844	77	22.5	754	79	18.0	0.2	0.3	0.4
2000	138	998	71	29.8	863	76	22.3	772	79	17.9	0.2	0.3	0.4
2000	207	1020	71	29.4	884	76	22.1	791	78	17.7	0.2	0.3	0.4
2250	69	982	73	30.6	844	78	22.6	753	80	18.0	0.2	0.3	0.4
2250	103	1022	73	30.1	880	77	22.3	786	80	17.8	0.2	0.3	0.4
2250	138	1045	72	29.7	902	77	22.1	806	79	17.7	0.2	0.3	0.4
2250	207	1070	71	29.3	926	76	21.9	828	79	17.5	0.2	0.3	0.4
2500	69	1020	74	30.5	875	78	22.5	780	81	17.9	0.2	0.3	0.4
2500	103	1064	73	29.8	916	77	22.2	817	80	17.7	0.2	0.3	0.4
2500	138	1090	72	29.5	940	77	21.9	839	80	17.5	0.2	0.3	0.4
2500	207	1119	72	29.1	966	76	21.7	864	79	17.4	0.2	0.3	0.4

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - Triplexed - Double Circuit

25°C Earth Ambient

Condr Size	Shield Res	60 Rho Amps	60 Rho Interface Temp °C	60 Rho Flux w/ft²	90 Rho Amps	90 Rho Interface Temp °C	90 Rho Flux w/ft²	120 Rho Amps	120 Rho Interface Temp °C	120 Rho Flux w/ft²	delta Td for .0010 pf & Rho 60	90	120
						100% LF							
						90°C - Aluminum Conductor - Concentric Strand							
500	69	431	71	24.9	370	76	18.3	329	79	14.6	0.2	0.2	0.3
500	103	436	71	24.7	374	76	18.2	333	79	14.5	0.2	0.2	0.3
500	138	439	71	24.6	377	76	18.2	336	79	14.5	0.2	0.2	0.3
500	207	442	71	24.4	380	76	18.1	338	79	14.4	0.2	0.2	0.3
750	69	525	73	23.9	448	77	17.5	398	80	13.9	0.2	0.3	0.3
750	103	534	72	23.8	457	77	17.4	406	80	13.8	0.2	0.3	0.3
750	138	539	72	23.6	462	77	17.3	410	80	13.7	0.2	0.3	0.3
750	207	545	72	23.4	467	77	17.2	415	79	13.6	0.2	0.3	0.3
1000	69	601	74	23.5	512	79	17.0	453	81	13.3	0.2	0.3	0.3
1000	103	615	74	23.2	525	78	16.9	465	81	13.2	0.2	0.3	0.3
1000	138	623	73	23.0	532	78	16.8	472	80	13.2	0.2	0.3	0.3
1000	207	632	73	22.9	540	78	16.7	479	80	13.2	0.2	0.3	0.3
1250	69	665	75	23.2	564	79	16.7	499	82	13.1	0.2	0.3	0.4
1250	103	683	75	22.9	581	79	16.6	514	81	13.0	0.2	0.3	0.4
1250	138	694	74	22.7	591	79	16.5	523	81	12.9	0.2	0.3	0.4
1250	207	706	74	22.5	601	78	16.3	533	81	12.9	0.2	0.3	0.4
1500	69	718	76	22.9	608	80	16.5	536	82	12.8	0.2	0.3	0.4
1500	103	741	76	22.6	629	80	16.3	556	82	12.8	0.2	0.3	0.4
1500	138	755	75	22.4	641	79	16.2	567	82	12.7	0.2	0.3	0.4
1500	207	769	75	22.2	654	79	16.0	579	81	12.6	0.2	0.3	0.4
1750	69	763	77	22.6	645	81	16.2	569	83	12.6	0.2	0.3	0.4
1750	103	791	76	22.3	670	80	16.0	591	82	12.5	0.2	0.3	0.4
1750	138	808	76	22.1	685	80	16.0	605	82	12.4	0.2	0.3	0.4
1750	207	825	75	21.9	701	79	15.8	619	82	12.3	0.2	0.3	0.4
2000	69	803	78	22.4	677	81	16.0	596	83	12.4	0.2	0.3	0.4
2000	103	835	77	22.1	706	81	15.8	622	83	12.3	0.2	0.3	0.4
2000	138	854	76	21.9	723	80	15.7	638	82	12.3	0.2	0.3	0.4
2000	207	875	76	21.6	741	80	15.6	655	82	12.2	0.2	0.3	0.4
2250	69	834	78	22.1	703	82	15.7	618	83	12.2	0.2	0.3	0.4
2250	103	870	77	21.9	735	81	15.6	647	83	12.1	0.2	0.3	0.4
2250	138	892	77	21.6	754	81	15.5	664	83	12.0	0.2	0.3	0.4
2250	207	915	76	21.4	775	80	15.4	683	82	11.9	0.2	0.3	0.4
2500	69	864	79	21.9	727	82	15.5	639	84	12.0	0.2	0.3	0.4
2500	103	904	78	21.6	762	81	15.4	671	83	11.9	0.2	0.3	0.4
2500	138	928	77	21.4	783	81	15.2	690	83	11.8	0.2	0.3	0.4
2500	207	954	77	21.1	807	81	15.2	711	83	11.8	0.2	0.3	0.4

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - Triplexed - Double Circuit

25°C Earth Ambient

Condr Size	Shield Res	60 Rho Amps	60 Rho Interface Temp °C	60 Rho Flux w/ft²	90 Rho Amps	90 Rho Interface Temp °C	90 Rho Flux w/ft²	120 Rho Amps	120 Rho Interface Temp °C	120 Rho Flux w/ft²	delta Td for .0010 pf & Rho 60	90	120
						75% LF							
						80°C - Aluminum Conductor - Concentric Strand							
500	69	457	60	27.3	401	64	21.0	362	67	17.2	0.2	0.2	0.3
500	103	462	59	27.0	406	64	20.9	367	67	17.1	0.2	0.2	0.3
500	138	465	59	26.9	409	64	20.8	369	67	17.0	0.2	0.2	0.3
500	207	468	59	26.7	412	64	20.7	372	67	16.9	0.2	0.2	0.3
750	69	560	61	26.7	489	65	20.4	440	68	16.6	0.2	0.3	0.3
750	103	570	60	26.3	498	65	20.2	449	68	16.4	0.2	0.3	0.3
750	138	575	60	26.1	504	65	20.0	454	68	16.3	0.2	0.3	0.3
750	207	581	60	25.9	509	65	19.9	459	67	16.2	0.2	0.3	0.3
1000	69	645	62	26.5	561	67	20.1	504	69	16.2	0.2	0.3	0.3
1000	103	660	62	26.0	575	66	19.8	517	69	16.0	0.2	0.3	0.3
1000	138	668	61	25.8	583	66	19.7	524	69	16.0	0.2	0.3	0.3
1000	207	677	61	25.6	591	65	19.5	532	68	15.8	0.2	0.3	0.3
1250	69	716	63	26.4	621	68	19.9	556	70	16.0	0.2	0.3	0.4
1250	103	736	63	26.0	639	67	19.6	573	70	15.8	0.2	0.3	0.4
1250	138	747	62	25.7	650	67	19.5	583	69	15.7	0.2	0.3	0.4
1250	207	759	62	25.4	661	66	19.3	594	69	15.6	0.2	0.3	0.4
1500	69	776	64	26.4	671	68	19.7	600	71	15.8	0.2	0.3	0.4
1500	103	800	64	25.9	693	68	19.4	621	70	15.6	0.2	0.3	0.4
1500	138	815	63	25.6	707	67	19.3	634	70	15.5	0.2	0.3	0.4
1500	207	830	63	25.3	721	67	19.1	647	69	15.4	0.2	0.3	0.4
1750	69	828	65	26.3	714	69	19.6	637	71	15.6	0.2	0.3	0.4
1750	103	857	64	25.7	741	68	19.3	663	71	15.5	0.2	0.3	0.4
1750	138	874	64	25.5	757	68	19.1	678	70	15.3	0.2	0.3	0.4
1750	207	893	63	25.1	774	67	18.9	694	70	15.2	0.2	0.3	0.4
2000	69	872	66	26.1	751	69	19.4	670	72	15.4	0.2	0.3	0.4
2000	103	906	65	25.6	782	69	19.1	699	71	15.3	0.2	0.3	0.4
2000	138	926	64	25.3	800	68	18.9	716	71	15.2	0.2	0.3	0.4
2000	207	948	64	24.9	821	68	18.7	735	70	15.0	0.2	0.3	0.4
2250	69	908	66	26.0	780	70	19.2	696	72	15.3	0.2	0.3	0.4
2250	103	946	65	25.5	815	69	18.9	728	71	15.1	0.2	0.3	0.4
2250	138	969	65	25.1	836	69	18.8	747	71	15.0	0.2	0.3	0.4
2250	207	994	64	24.8	859	68	18.6	769	71	14.8	0.2	0.3	0.4
2500	69	943	67	25.9	809	70	19.1	720	72	15.1	0.2	0.3	0.4
2500	103	985	66	25.4	847	70	18.8	756	72	14.9	0.2	0.3	0.4
2500	138	1010	65	25.0	870	69	18.6	777	71	14.9	0.2	0.3	0.4
2500	207	1038	65	24.7	896	69	18.4	801	71	14.7	0.2	0.3	0.4

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - Triplexed - Double Circuit

25°C Earth Ambient

Condr Size	Shield Res	60 Rho Amps	60 Rho Interface Temp °C	60 Rho Flux w/ft²	90 Rho Amps	90 Rho Interface Temp °C	90 Rho Flux w/ft²	120 Rho Amps	120 Rho Interface Temp °C	120 Rho Flux w/ft²	delta Td for .0010 pf & Rho 60	90	120
						100% LF							
						80°C - Aluminum Conductor - Concentric Strand							
500	69	401	64	21.1	344	68	15.5	306	71	12.3	0.2	0.2	0.3
500	103	406	64	20.9	349	68	15.5	311	71	12.2	0.2	0.2	0.3
500	138	409	64	20.8	352	68	15.5	313	71	12.2	0.2	0.2	0.3
500	207	412	64	20.8	354	68	15.4	316	70	12.2	0.2	0.2	0.3
750	69	488	66	20.3	417	69	14.8	370	72	11.7	0.2	0.3	0.3
750	103	497	65	20.1	426	69	14.8	378	71	11.6	0.2	0.3	0.3
750	138	503	65	20.0	430	69	14.7	382	71	11.6	0.2	0.3	0.3
750	207	508	65	19.9	436	69	14.6	387	71	11.5	0.2	0.3	0.3
1000	69	559	67	19.9	476	70	14.4	421	72	11.3	0.2	0.3	0.3
1000	103	573	66	19.7	488	70	14.3	433	72	11.2	0.2	0.3	0.3
1000	138	581	66	19.5	495	70	14.3	439	72	11.2	0.2	0.3	0.3
1000	207	589	66	19.4	503	70	14.2	446	72	11.2	0.2	0.3	0.3
1250	69	617	68	19.7	523	71	14.2	463	73	11.1	0.2	0.3	0.4
1250	103	635	67	19.4	540	71	14.0	478	73	11.0	0.2	0.3	0.4
1250	138	646	67	19.2	550	70	14.0	486	73	10.9	0.2	0.3	0.4
1250	207	657	66	19.1	560	70	13.9	496	72	10.9	0.2	0.3	0.4
1500	69	666	68	19.4	563	72	14.0	497	74	10.9	0.2	0.3	0.4
1500	103	688	68	19.1	584	71	13.8	516	73	10.7	0.2	0.3	0.4
1500	138	702	67	19.0	596	71	13.7	527	73	10.7	0.2	0.3	0.4
1500	207	716	67	18.8	609	71	13.6	538	73	10.7	0.2	0.3	0.4
1750	69	707	69	19.2	597	72	13.7	526	74	10.7	0.2	0.3	0.4
1750	103	734	68	18.9	621	72	13.6	548	74	10.6	0.2	0.3	0.4
1750	138	750	68	18.7	636	71	13.5	561	73	10.5	0.2	0.3	0.4
1750	207	767	68	18.6	651	71	13.4	575	73	10.5	0.2	0.3	0.4
2000	69	743	70	19.0	626	73	13.5	551	74	10.5	0.2	0.3	0.4
2000	103	774	69	18.7	654	72	13.4	576	74	10.4	0.2	0.3	0.4
2000	138	792	69	18.5	670	72	13.3	591	74	10.4	0.2	0.3	0.4
2000	207	813	68	18.3	688	71	13.2	608	73	10.3	0.2	0.3	0.4
2250	69	771	70	18.8	649	73	13.3	571	75	10.3	0.2	0.3	0.4
2250	103	806	69	18.5	680	72	13.2	599	74	10.2	0.2	0.3	0.4
2250	138	827	69	18.3	698	72	13.1	616	74	10.2	0.2	0.3	0.4
2250	207	850	68	18.1	719	72	13.0	634	74	10.1	0.2	0.3	0.4
2500	69	798	70	18.6	671	73	13.1	590	75	10.2	0.2	0.3	0.4
2500	103	836	70	18.3	705	73	13.0	620	74	10.1	0.2	0.3	0.4
2500	138	860	69	18.1	725	72	12.9	639	74	10.1	0.2	0.3	0.4
2500	207	885	69	17.9	748	72	12.8	659	74	10.0	0.2	0.3	0.4

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1124

69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - Triplexed - Double Circuit

25°C Earth Ambient

Condr Size	Shield Res	60 Rho Amps	60 Rho Interface Temp °C	60 Rho Flux w/ft²	90 Rho Amps	90 Rho Interface Temp °C	90 Rho Flux w/ft²	120 Rho Amps	120 Rho Interface Temp °C	120 Rho Flux w/ft²	delta Td for .0010 pf & Rho 60	90	120
						75% LF							
						65°C - Aluminum Conductor - Concentric Strand							
500	69	398	50	19.9	349	54	15.4	315	56	12.5	0.2	0.2	0.3
500	103	403	50	19.8	354	53	15.2	319	56	12.4	0.2	0.2	0.3
500	138	406	50	19.6	356	53	15.2	322	55	12.4	0.2	0.2	0.3
500	207	408	50	19.5	359	53	15.1	325	55	12.3	0.2	0.2	0.3
750	69	486	51	19.5	425	55	14.8	382	57	12.0	0.2	0.3	0.3
750	103	495	51	19.2	433	54	14.7	390	56	12.0	0.2	0.3	0.3
750	138	501	51	19.1	438	54	14.6	395	56	11.9	0.2	0.3	0.3
750	207	506	50	18.9	443	54	14.5	400	56	11.8	0.2	0.3	0.3
1000	69	559	52	19.4	486	55	14.6	436	57	11.8	0.2	0.3	0.3
1000	103	573	52	19.0	499	55	14.4	448	57	11.7	0.2	0.3	0.3
1000	138	581	52	18.8	506	55	14.3	455	57	11.6	0.2	0.3	0.3
1000	207	589	51	18.6	514	55	14.2	463	57	11.5	0.2	0.3	0.3
1250	69	620	53	19.3	536	56	14.5	480	58	11.7	0.2	0.3	0.4
1250	103	638	53	18.9	553	56	14.3	496	57	11.5	0.2	0.3	0.4
1250	138	648	52	18.7	563	55	14.2	506	57	11.4	0.2	0.3	0.4
1250	207	659	52	18.5	574	55	14.0	516	57	11.4	0.2	0.3	0.4
1500	69	670	54	19.3	579	57	14.4	517	58	11.5	0.2	0.3	0.4
1500	103	693	53	18.9	600	56	14.2	537	58	11.4	0.2	0.3	0.4
1500	138	706	53	18.7	612	56	14.0	548	58	11.3	0.2	0.3	0.4
1500	207	720	52	18.4	626	56	13.9	561	57	11.2	0.2	0.3	0.4
1750	69	713	54	19.2	614	57	14.3	548	59	11.4	0.2	0.3	0.4
1750	103	740	54	18.8	639	57	14.1	572	58	11.2	0.2	0.3	0.4
1750	138	756	53	18.6	654	56	13.9	585	58	11.2	0.2	0.3	0.4
1750	207	774	53	18.3	671	56	13.7	601	58	11.0	0.2	0.3	0.4
2000	69	751	55	19.1	645	57	14.1	575	59	11.2	0.2	0.3	0.4
2000	103	782	54	18.7	674	57	13.9	602	59	11.1	0.2	0.3	0.4
2000	138	800	54	18.5	691	57	13.8	618	58	11.0	0.2	0.3	0.4
2000	207	821	53	18.2	710	56	13.6	635	58	10.9	0.2	0.3	0.4
2250	69	781	55	19.0	670	58	14.0	597	59	11.2	0.2	0.3	0.4
2250	103	815	55	18.6	702	57	13.8	626	59	11.0	0.2	0.3	0.4
2250	138	836	54	18.4	721	57	13.6	644	59	10.9	0.2	0.3	0.4
2250	207	859	54	18.0	742	57	13.5	664	58	10.8	0.2	0.3	0.4
2500	69	809	55	18.9	693	58	13.9	617	59	11.0	0.2	0.3	0.4
2500	103	847	55	18.5	728	58	13.7	649	59	10.9	0.2	0.3	0.4
2500	138	871	54	18.2	749	57	13.5	669	59	10.8	0.2	0.3	0.4
2500	207	896	54	17.9	773	57	13.4	691	58	10.7	0.2	0.3	0.4

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - Triplexed - Double Circuit

25°C Earth Ambient

Condr Size	Shield Res	60 Rho Amps	60 Rho Interface Temp °C	60 Rho Flux w/ft²	90 Rho Amps	90 Rho Interface Temp °C	90 Rho Flux w/ft²	120 Rho Amps	120 Rho Interface Temp °C	120 Rho Flux w/ft²	delta Td for .0010 pf & Rho 60	90	120
						100% LF							
						65°C - Aluminum Conductor - Concentric Strand							
500	69	349	54	15.4	300	57	11.3	266	58	9.0	0.2	0.2	0.3
500	103	354	53	15.3	304	56	11.2	270	58	8.9	0.2	0.2	0.3
500	138	357	53	15.2	307	56	11.2	273	58	8.9	0.2	0.2	0.3
500	207	359	53	15.1	309	56	11.1	275	58	8.9	0.2	0.2	0.3
750	69	424	55	14.8	362	57	10.8	321	59	8.5	0.2	0.3	0.3
750	103	432	54	14.7	370	57	10.7	328	59	8.5	0.2	0.3	0.3
750	138	437	54	14.5	374	57	10.7	332	59	8.4	0.2	0.3	0.3
750	207	443	54	14.4	379	57	10.6	337	59	8.4	0.2	0.3	0.3
1000	69	484	55	14.5	412	58	10.5	364	60	8.2	0.2	0.3	0.3
1000	103	497	55	14.3	423	58	10.4	375	59	8.2	0.2	0.3	0.3
1000	138	504	55	14.2	430	58	10.4	381	59	8.1	0.2	0.3	0.3
1000	207	512	55	14.1	437	57	10.3	388	59	8.1	0.2	0.3	0.3
1250	69	533	56	14.3	452	59	10.3	399	60	8.1	0.2	0.3	0.4
1250	103	550	56	14.1	467	58	10.3	413	60	8.0	0.2	0.3	0.4
1250	138	560	55	14.0	476	58	10.2	421	60	7.9	0.2	0.3	0.4
1250	207	571	55	13.9	486	58	10.1	430	59	7.9	0.2	0.3	0.4
1500	69	574	57	14.2	486	59	10.2	428	60	8.0	0.2	0.3	0.4
1500	103	595	56	14.0	504	59	10.0	445	60	7.9	0.2	0.3	0.4
1500	138	608	56	13.8	516	59	10.0	456	60	7.8	0.2	0.3	0.4
1500	207	621	56	13.7	528	58	9.9	467	60	7.7	0.2	0.3	0.4
1750	69	609	57	14.0	514	59	10.0	453	61	7.8	0.2	0.3	0.4
1750	103	634	57	13.8	536	59	9.9	473	60	7.7	0.2	0.3	0.4
1750	138	649	56	13.7	549	59	9.8	485	60	7.7	0.2	0.3	0.4
1750	207	665	56	13.5	564	59	9.8	498	60	7.6	0.2	0.3	0.4
2000	69	639	58	13.9	538	60	9.8	473	61	7.7	0.2	0.3	0.4
2000	103	667	57	13.7	563	59	9.8	496	61	7.6	0.2	0.3	0.4
2000	138	684	57	13.5	578	59	9.7	510	60	7.5	0.2	0.3	0.4
2000	207	703	56	13.4	595	59	9.6	525	60	7.5	0.2	0.3	0.4
2250	69	662	58	13.7	557	60	9.7	490	61	7.5	0.2	0.3	0.4
2250	103	694	57	13.5	585	60	9.6	515	61	7.5	0.2	0.3	0.4
2250	138	713	57	13.4	602	59	9.6	530	61	7.4	0.2	0.3	0.4
2250	207	734	57	13.2	621	59	9.4	547	60	7.3	0.2	0.3	0.4
2500	69	685	58	13.6	575	60	9.6	505	61	7.4	0.2	0.3	0.4
2500	103	719	58	13.4	605	60	9.5	532	61	7.4	0.2	0.3	0.4
2500	138	740	57	13.2	624	60	9.4	549	61	7.3	0.2	0.3	0.4
2500	207	764	57	13.1	645	59	9.3	568	61	7.3	0.2	0.3	0.4

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1126

69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - Triplexed - Double Circuit

25°C Earth Ambient

Condr Size	Shield Res	60 Rho Amps	60 Rho Interface Temp °C	60 Rho Flux w/ft²	90 Rho Amps	90 Rho Interface Temp °C	90 Rho Flux w/ft²	120 Rho Amps	120 Rho Interface Temp °C	120 Rho Flux w/ft²	delta Td for .0010 pf & Rho 60	90	120
						75% LF							
						50°C - Aluminum Conductor - Concentric Strand							
500	69	321	41	12.5	281	43	9.6	254	44	7.8	0.2	0.2	0.3
500	103	325	41	12.4	285	43	9.5	258	44	7.7	0.2	0.2	0.3
500	138	328	41	12.3	288	43	9.4	260	44	7.7	0.2	0.2	0.3
500	207	330	40	12.2	290	43	9.4	262	44	7.7	0.2	0.2	0.3
750	69	392	42	12.2	341	44	9.3	307	45	7.5	0.2	0.3	0.3
750	103	399	41	12.0	349	43	9.2	314	45	7.5	0.2	0.3	0.3
750	138	404	41	12.0	353	43	9.2	318	45	7.4	0.2	0.3	0.3
750	207	409	41	11.8	358	43	9.1	323	44	7.3	0.2	0.3	0.3
1000	69	449	42	12.2	390	44	9.1	350	45	7.4	0.2	0.3	0.3
1000	103	461	42	11.9	401	44	9.1	360	45	7.3	0.2	0.3	0.3
1000	138	468	42	11.8	408	44	9.0	366	45	7.3	0.2	0.3	0.3
1000	207	475	41	11.6	414	44	8.9	373	45	7.2	0.2	0.3	0.3
1250	69	496	43	12.1	429	45	9.1	384	46	7.3	0.2	0.3	0.4
1250	103	512	42	11.9	444	44	9.0	398	45	7.2	0.2	0.3	0.4
1250	138	521	42	11.7	453	44	8.9	406	45	7.1	0.2	0.3	0.4
1250	207	531	42	11.6	462	44	8.8	415	45	7.1	0.2	0.3	0.4
1500	69	536	43	12.1	462	45	9.0	413	46	7.2	0.2	0.3	0.4
1500	103	555	43	11.9	480	45	8.9	429	46	7.1	0.2	0.3	0.4
1500	138	567	43	11.7	491	44	8.8	439	46	7.1	0.2	0.3	0.4
1500	207	579	42	11.5	503	44	8.7	450	45	7.0	0.2	0.3	0.4
1750	69	569	43	12.1	490	45	8.9	437	46	7.1	0.2	0.3	0.4
1750	103	592	43	11.8	511	45	8.8	456	46	7.0	0.2	0.3	0.4
1750	138	606	43	11.7	524	45	8.7	468	46	7.0	0.2	0.3	0.4
1750	207	621	43	11.4	538	44	8.6	481	46	6.9	0.2	0.3	0.4
2000	69	598	44	12.0	513	45	8.9	457	46	7.1	0.2	0.3	0.4
2000	103	624	43	11.7	537	45	8.7	479	46	6.9	0.2	0.3	0.4
2000	138	640	43	11.6	552	45	8.6	493	46	6.9	0.2	0.3	0.4
2000	207	658	43	11.4	569	45	8.6	508	46	6.8	0.2	0.3	0.4
2250	69	621	44	11.9	532	46	8.8	473	47	7.0	0.2	0.3	0.4
2250	103	650	44	11.7	559	45	8.7	498	46	6.9	0.2	0.3	0.4
2250	138	668	43	11.5	575	45	8.5	513	46	6.8	0.2	0.3	0.4
2250	207	688	43	11.4	594	45	8.5	530	46	6.8	0.2	0.3	0.4
2500	69	642	44	11.8	550	46	8.7	489	47	6.9	0.2	0.3	0.4
2500	103	675	44	11.6	579	45	8.6	515	46	6.8	0.2	0.3	0.4
2500	138	694	44	11.5	597	45	8.5	532	46	6.7	0.2	0.3	0.4
2500	207	717	43	11.3	617	45	8.4	551	46	6.7	0.2	0.3	0.4

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - Triplexed - Double Circuit

25°C Earth Ambient

Condr Size	Shield Res	60 Rho Amps	60 Rho Interface Temp °C	60 Rho Flux w/ft²	90 Rho Amps	90 Rho Interface Temp °C	90 Rho Flux w/ft²	120 Rho Amps	120 Rho Interface Temp °C	120 Rho Flux w/ft²	delta Td for .0010 pf & Rho 60	90	120
						100% LF							
						50°C - Aluminum Conductor - Concentric Strand							
500	69	282	43	9.6	241	45	7.1	215	46	5.7	0.2	0.2	0.3
500	103	286	43	9.5	245	45	7.1	218	46	5.6	0.2	0.2	0.3
500	138	288	43	9.5	248	45	7.0	220	46	5.6	0.2	0.2	0.3
500	207	291	43	9.4	250	45	7.0	222	46	5.6	0.2	0.2	0.3
750	69	341	44	9.3	291	45	6.8	258	46	5.4	0.2	0.3	0.3
750	103	348	43	9.2	298	45	6.8	264	46	5.3	0.2	0.3	0.3
750	138	353	43	9.2	302	45	6.7	268	46	5.3	0.2	0.3	0.3
750	207	357	43	9.1	306	45	6.7	272	46	5.3	0.2	0.3	0.3
1000	69	389	44	9.1	330	46	6.6	292	47	5.2	0.2	0.3	0.3
1000	103	400	44	9.0	340	46	6.5	301	47	5.1	0.2	0.3	0.3
1000	138	406	44	8.9	346	45	6.5	306	46	5.1	0.2	0.3	0.3
1000	207	413	44	8.8	352	45	6.4	312	46	5.1	0.2	0.3	0.3
1250	69	427	45	9.0	362	46	6.5	319	47	5.1	0.2	0.3	0.4
1250	103	442	44	8.8	375	46	6.4	331	47	5.1	0.2	0.3	0.4
1250	138	450	44	8.8	383	46	6.4	338	47	5.0	0.2	0.3	0.4
1250	207	460	44	8.7	391	46	6.3	346	47	5.0	0.2	0.3	0.4
1500	69	459	45	8.9	388	46	6.4	341	47	4.9	0.2	0.3	0.4
1500	103	477	45	8.7	404	46	6.3	356	47	4.9	0.2	0.3	0.4
1500	138	488	44	8.7	413	46	6.2	365	47	4.9	0.2	0.3	0.4
1500	207	499	44	8.6	424	46	6.2	374	47	4.9	0.2	0.3	0.4
1750	69	486	45	8.8	409	47	6.2	360	47	4.9	0.2	0.3	0.4
1750	103	507	45	8.7	428	46	6.2	377	47	4.9	0.2	0.3	0.4
1750	138	520	45	8.6	439	46	6.2	387	47	4.8	0.2	0.3	0.4
1750	207	534	45	8.5	452	46	6.1	399	47	4.8	0.2	0.3	0.4
2000	69	508	45	8.7	428	47	6.2	376	48	4.8	0.2	0.3	0.4
2000	103	532	45	8.6	449	47	6.1	395	47	4.8	0.2	0.3	0.4
2000	138	547	45	8.5	462	46	6.1	407	47	4.7	0.2	0.3	0.4
2000	207	563	45	8.4	477	46	6.0	420	47	4.7	0.2	0.3	0.4
2250	69	526	46	8.6	442	47	6.1	388	48	4.7	0.2	0.3	0.4
2250	103	553	45	8.5	465	47	6.0	409	47	4.7	0.2	0.3	0.4
2250	138	569	45	8.4	480	47	6.0	422	47	4.7	0.2	0.3	0.4
2250	207	588	45	8.3	496	46	5.9	437	47	4.6	0.2	0.3	0.4
2500	69	543	46	8.5	456	47	6.0	400	48	4.7	0.2	0.3	0.4
2500	103	572	46	8.4	481	47	6.0	423	48	4.6	0.2	0.3	0.4
2500	138	590	45	8.3	497	47	5.9	437	47	4.6	0.2	0.3	0.4
2500	207	611	45	8.2	515	47	5.8	453	47	4.5	0.2	0.3	0.4

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - Triplexed - Double Circuit

25°C Earth Ambient

Condr Size	Shield Res	60 Rho 75 LF	60 Rho 100 LF	90 Rho 75 LF	90 Rho 100 LF	120 Rho 75 LF	120 Rho 100 LF
		Total Watts/ft					
90°C - Aluminum Conductor - Concentric Strand							
500	69	71.7	55.5	55.3	41.0	45.0	32.4
500	103	71.2	55.1	54.8	40.6	44.8	32.2
500	138	70.5	54.8	54.6	40.5	44.7	32.2
500	207	70.1	54.6	54.4	40.4	44.5	32.0
750	69	76.2	58.2	58.4	42.4	47.3	33.5
750	103	75.2	57.5	57.7	42.2	46.9	33.3
750	138	74.8	57.1	57.3	42.0	46.7	33.1
750	207	74.0	56.8	57.0	41.8	46.5	33.0
1000	69	80.5	60.4	61.0	43.9	49.2	34.4
1000	103	79.4	59.8	60.3	43.6	48.9	34.2
1000	138	78.5	59.3	59.9	43.3	48.5	34.1
1000	207	77.8	59.0	59.4	43.1	48.2	34.0
1250	69	83.9	62.5	63.2	45.0	50.7	35.3
1250	103	82.4	61.5	62.2	44.6	50.2	34.9
1250	138	81.5	61.1	61.8	44.4	49.9	34.8
1250	207	80.8	60.7	61.4	44.0	49.6	34.7
1500	69	86.9	64.0	64.9	45.9	52.0	35.8
1500	103	85.3	63.1	64.1	45.5	51.4	35.6
1500	138	84.2	62.6	63.6	45.2	51.1	35.4
1500	207	83.3	62.0	62.9	44.9	50.8	35.2
1750	69	89.3	65.2	66.4	46.7	53.1	36.4
1750	103	87.5	64.3	65.5	46.2	52.5	36.0
1750	138	86.5	63.9	65.0	46.0	52.2	35.9
1750	207	85.4	63.1	64.4	45.7	51.8	35.7
2000	69	91.4	66.5	67.8	47.3	54.1	36.8
2000	103	89.7	65.6	67.0	46.9	53.5	36.5
2000	138	88.6	64.9	66.3	46.6	53.1	36.3
2000	207	87.3	64.3	65.6	46.2	52.6	36.1
2250	69	93.4	67.4	69.1	48.0	55.0	37.1
2250	103	91.6	66.5	68.0	47.5	54.3	36.9
2250	138	90.4	66.0	67.4	47.2	53.9	36.7
2250	207	89.1	65.2	66.8	46.9	53.4	36.4
2500	69	95.1	68.3	70.1	48.5	55.7	37.5
2500	103	93.3	67.4	69.2	48.0	55.1	37.3
2500	138	92.0	66.8	68.5	47.6	54.6	37.0
2500	207	90.8	66.1	67.7	47.3	54.2	36.8

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - Triplexed - Double Circuit

25°C Earth Ambient

Condr Size	Shield Res	60 Rho 75 LF	60 Rho 100 LF	90 Rho 75 LF	90 Rho 100 LF	120 Rho 75 LF	120 Rho 100 LF
		Total Watts/ft					
80°C - Aluminum Conductor - Concentric Strand							
500	69	60.8	46.9	46.9	34.5	38.2	27.4
500	103	60.2	46.5	46.5	34.4	38.0	27.3
500	138	59.8	46.3	46.3	34.3	37.7	27.2
500	207	59.4	46.1	46.1	34.1	37.6	27.2
750	69	64.7	49.2	49.4	36.0	40.0	28.3
750	103	63.9	48.6	48.8	35.8	39.7	28.2
750	138	63.3	48.5	48.7	35.5	39.5	28.0
750	207	62.8	48.1	48.3	35.5	39.3	28.0
1000	69	68.2	51.3	51.7	37.3	41.7	29.2
1000	103	67.3	50.8	51.1	36.9	41.4	29.1
1000	138	66.6	50.4	50.8	36.7	41.1	28.9
1000	207	66.0	50.0	50.3	36.5	40.8	28.7
1250	69	71.2	52.9	53.6	38.1	43.0	29.9
1250	103	70.1	52.2	52.9	37.8	42.6	29.7
1250	138	69.2	51.8	52.5	37.6	42.3	29.4
1250	207	68.5	51.4	52.0	37.4	42.0	29.4
1500	69	73.6	54.3	55.1	38.9	44.1	30.3
1500	103	72.1	53.4	54.2	38.5	43.6	30.1
1500	138	71.5	53.1	53.8	38.3	43.3	30.0
1500	207	70.5	52.5	53.3	38.1	42.9	29.8
1750	69	75.8	55.4	56.5	39.5	45.0	30.7
1750	103	74.4	54.6	55.7	39.2	44.6	30.5
1750	138	73.4	54.1	55.1	39.0	44.2	30.4
1750	207	72.5	53.5	54.5	38.6	43.9	30.2
2000	69	77.6	56.4	57.7	40.1	45.9	31.1
2000	103	76.1	55.6	56.8	39.8	45.4	30.9
2000	138	75.1	55.0	56.1	39.4	45.0	30.7
2000	207	74.0	54.5	55.6	39.1	44.6	30.6
2250	69	79.2	57.2	58.5	40.6	46.7	31.5
2250	103	77.6	56.4	57.7	40.2	46.1	31.3
2250	138	76.7	55.9	57.1	39.9	45.7	31.1
2250	207	75.6	55.4	56.5	39.7	45.4	30.9
2500	69	80.8	58.0	59.6	41.1	47.2	31.8
2500	103	79.2	57.1	58.6	40.7	46.7	31.5
2500	138	78.0	56.6	58.0	40.3	46.3	31.4
2500	207	76.9	56.0	57.4	40.1	45.9	31.2

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - Triplexed - Double Circuit

25°C Earth Ambient

Condr Size	Shield Res	60 Rho 75 LF	60 Rho 100 LF	90 Rho 75 LF	90 Rho 100 LF	120 Rho 75 LF	120 Rho 100 LF
		Total Watts/ft					
65°C - Aluminum Conductor - Concentric Strand							
500	69	44.4	34.2	34.2	25.3	27.9	19.9
500	103	43.9	33.9	33.9	25.1	27.6	19.8
500	138	43.7	33.8	33.6	25.1	27.5	19.8
500	207	43.2	33.5	33.5	24.9	27.5	19.7
750	69	47.2	36.0	36.1	26.3	29.2	20.7
750	103	46.5	35.5	35.6	26.1	28.9	20.5
750	138	46.3	35.2	35.4	25.9	28.8	20.4
750	207	45.8	35.1	35.1	25.8	28.7	20.4
1000	69	49.9	37.4	37.7	27.2	30.4	21.3
1000	103	49.1	37.0	37.3	26.8	30.1	21.1
1000	138	48.6	36.6	36.9	26.7	29.9	21.0
1000	207	48.1	36.4	36.6	26.5	29.8	21.0
1250	69	52.1	38.6	39.0	27.8	31.3	21.7
1250	103	51.1	38.1	38.5	27.5	31.0	21.6
1250	138	50.5	37.7	38.1	27.3	30.9	21.4
1250	207	49.8	37.5	37.8	27.2	30.6	21.3
1500	69	53.8	39.5	40.2	28.4	32.1	22.1
1500	103	52.8	39.0	39.7	28.0	31.8	21.9
1500	138	52.1	38.7	39.2	27.9	31.5	21.9
1500	207	51.3	38.3	38.9	27.7	31.3	21.7
1750	69	55.3	40.4	41.1	28.9	32.8	22.5
1750	103	54.2	39.8	40.5	28.5	32.5	22.3
1750	138	53.5	39.5	40.1	28.3	32.1	22.1
1750	207	52.8	39.0	39.7	28.1	31.9	22.0
2000	69	56.8	41.2	41.9	29.3	33.4	22.7
2000	103	55.6	40.5	41.4	28.9	33.1	22.5
2000	138	54.8	40.1	40.9	28.7	32.8	22.4
2000	207	54.0	39.7	40.5	28.5	32.4	22.2
2250	69	58.0	41.7	42.7	29.6	34.0	23.0
2250	103	56.7	41.2	42.1	29.3	33.6	22.8
2250	138	55.9	40.8	41.7	29.1	33.3	22.6
2250	207	55.0	40.2	41.1	28.9	33.0	22.5
2500	69	59.0	42.4	43.4	29.9	34.4	23.2
2500	103	57.7	41.7	42.7	29.6	34.0	22.9
2500	138	57.0	41.2	42.2	29.4	33.7	22.8
2500	207	56.0	40.8	41.8	29.2	33.4	22.7

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - Triplexed - Double Circuit

25°C Earth Ambient

Condr Size	Shield Res	60 Rho 75 LF	60 Rho 100 LF	90 Rho 75 LF	90 Rho 100 LF	120 Rho 75 LF	120 Rho 100 LF
		Total Watts/ft					
50°C - Aluminum Conductor - Concentric Strand							
500	69	27.8	21.5	21.4	15.7	17.5	12.6
500	103	27.4	21.3	21.1	15.7	17.4	12.4
500	138	27.3	21.1	21.1	15.7	17.2	12.4
500	207	27.0	21.1	20.9	15.6	17.1	12.3
750	69	29.7	22.5	22.5	16.5	18.3	13.0
750	103	29.1	22.2	22.3	16.3	18.1	12.9
750	138	28.9	22.1	22.1	16.2	18.0	12.8
750	207	28.7	21.9	22.0	16.1	17.9	12.8
1000	69	31.3	23.5	23.7	17.0	19.1	13.4
1000	103	30.8	23.2	23.3	16.8	18.9	13.2
1000	138	30.5	23.0	23.2	16.7	18.7	13.1
1000	207	30.1	22.8	22.9	16.6	18.6	13.1
1250	69	32.6	24.2	24.5	17.5	19.6	13.6
1250	103	32.0	23.9	24.1	17.3	19.4	13.5
1250	138	31.6	23.6	24.0	17.2	19.3	13.4
1250	207	31.2	23.5	23.7	17.0	19.1	13.4
1500	69	33.8	24.8	25.2	17.8	20.2	13.8
1500	103	33.1	24.5	24.8	17.6	19.9	13.7
1500	138	32.7	24.3	24.6	17.5	19.7	13.7
1500	207	32.2	23.9	24.3	17.3	19.5	13.5
1750	69	34.7	25.4	25.8	18.1	20.6	14.0
1750	103	34.0	25.0	25.4	17.9	20.3	13.9
1750	138	33.6	24.8	25.2	17.7	20.1	13.8
1750	207	33.0	24.5	24.8	17.6	19.9	13.8
2000	69	35.7	25.8	26.3	18.4	20.9	14.2
2000	103	34.9	25.4	25.9	18.2	20.6	14.1
2000	138	34.4	25.2	25.6	18.0	20.5	14.0
2000	207	33.8	24.8	25.4	17.9	20.3	13.9
2250	69	36.4	26.2	26.8	18.6	21.2	14.4
2250	103	35.6	25.8	26.4	18.3	21.0	14.2
2250	138	35.1	25.5	26.0	18.2	20.8	14.1
2250	207	34.5	25.3	25.8	18.1	20.6	14.1
2500	69	37.0	26.5	27.2	18.8	21.6	14.5
2500	103	36.3	26.1	26.8	18.6	21.2	14.4
2500	138	35.7	25.8	26.5	18.4	21.1	14.3
2500	207	35.1	25.6	26.1	18.3	20.9	14.2

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - Triplexed - Double Circuit

25°C Earth Ambient

Condr Size	Sheath Res	OD	Wd	Rac	Qs	Ri	Rj	Re @ 90 loss 75%	Rho & factor 100%
90°C - Aluminum Conductor - Concentric Strand									
500	69	2.679	0.03	44.75	1.110	1.95	0.27	3.96	5.81
500	103	2.679	0.03	44.75	1.076	1.95	0.27	3.96	5.81
500	138	2.679	0.03	44.75	1.057	1.95	0.27	3.96	5.81
500	207	2.679	0.03	44.75	1.038	1.95	0.27	3.96	5.81
750	69	2.918	0.03	30.05	1.167	1.72	0.32	3.84	5.69
750	103	2.918	0.03	30.05	1.115	1.72	0.32	3.84	5.69
750	138	2.918	0.03	30.05	1.087	1.72	0.32	3.84	5.69
750	207	2.918	0.03	30.05	1.058	1.72	0.32	3.84	5.69
1000	69	3.107	0.03	22.78	1.220	1.56	0.30	3.75	5.60
1000	103	3.107	0.03	22.78	1.152	1.56	0.30	3.75	5.60
1000	138	3.107	0.03	22.78	1.114	1.56	0.30	3.75	5.60
1000	207	3.107	0.03	22.78	1.077	1.56	0.30	3.75	5.60
1250	69	3.240	0.04	18.49	1.269	1.45	0.28	3.69	5.55
1250	103	3.240	0.04	18.49	1.185	1.45	0.28	3.69	5.55
1250	138	3.240	0.04	18.49	1.140	1.45	0.28	3.69	5.55
1250	207	3.240	0.04	18.49	1.094	1.45	0.28	3.69	5.55
1500	69	3.360	0.04	15.67	1.315	1.36	0.27	3.64	5.49
1500	103	3.360	0.04	15.67	1.217	1.36	0.27	3.64	5.49
1500	138	3.360	0.04	15.67	1.164	1.36	0.27	3.64	5.49
1500	207	3.360	0.04	15.67	1.110	1.36	0.27	3.64	5.49
1750	69	3.470	0.04	13.69	1.359	1.29	0.26	3.60	5.45
1750	103	3.470	0.04	13.69	1.247	1.29	0.26	3.60	5.45
1750	138	3.470	0.04	13.69	1.186	1.29	0.26	3.60	5.45
1750	207	3.470	0.04	13.69	1.125	1.29	0.26	3.60	5.45
2000	69	3.573	0.04	12.24	1.399	1.22	0.26	3.55	5.41
2000	103	3.573	0.04	12.24	1.275	1.22	0.26	3.55	5.41
2000	138	3.573	0.04	12.24	1.207	1.22	0.26	3.55	5.41
2000	207	3.573	0.04	12.24	1.139	1.22	0.26	3.55	5.41
2250	69	3.668	0.04	11.23	1.433	1.17	0.25	3.52	5.37
2250	103	3.668	0.04	11.23	1.298	1.17	0.25	3.52	5.37
2250	138	3.668	0.04	11.23	1.225	1.17	0.25	3.52	5.37
2250	207	3.668	0.04	11.23	1.151	1.17	0.25	3.52	5.37
2500	69	3.759	0.04	10.36	1.467	1.13	0.24	3.48	5.34
2500	103	3.759	0.04	10.36	1.322	1.13	0.24	3.48	5.34
2500	138	3.759	0.04	10.36	1.242	1.13	0.24	3.48	5.34
2500	207	3.759	0.04	10.36	1.163	1.13	0.24	3.48	5.34

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - Triplexed - Double Circuit

25°C Earth Ambient

Condr Size	Sheath Res	OD	Wd	Rac	Qs	Ri	Rj	Re @ 90 Rho & loss factor 75%	100%
			80°C - Aluminum Conductor - Concentric Strand						
500	69	2.679	0.03	44.75	1.110	1.95	0.27	3.96	5.81
500	103	2.679	0.03	44.75	1.076	1.95	0.27	3.96	5.81
500	138	2.679	0.03	44.75	1.057	1.95	0.27	3.96	5.81
500	207	2.679	0.03	44.75	1.038	1.95	0.27	3.96	5.81
750	69	2.918	0.03	30.05	1.167	1.72	0.32	3.84	5.69
750	103	2.918	0.03	30.05	1.115	1.72	0.32	3.84	5.69
750	138	2.918	0.03	30.05	1.087	1.72	0.32	3.84	5.69
750	207	2.918	0.03	30.05	1.058	1.72	0.32	3.84	5.69
1000	69	3.107	0.03	22.78	1.220	1.56	0.30	3.75	5.60
1000	103	3.107	0.03	22.78	1.152	1.56	0.30	3.75	5.60
1000	138	3.107	0.03	22.78	1.114	1.56	0.30	3.75	5.60
1000	207	3.107	0.03	22.78	1.077	1.56	0.30	3.75	5.60
1250	69	3.240	0.04	18.49	1.269	1.45	0.28	3.69	5.55
1250	103	3.240	0.04	18.49	1.185	1.45	0.28	3.69	5.55
1250	138	3.240	0.04	18.49	1.140	1.45	0.28	3.69	5.55
1250	207	3.240	0.04	18.49	1.094	1.45	0.28	3.69	5.55
1500	69	3.360	0.04	15.67	1.315	1.36	0.27	3.64	5.49
1500	103	3.360	0.04	15.67	1.217	1.36	0.27	3.64	5.49
1500	138	3.360	0.04	15.67	1.164	1.36	0.27	3.64	5.49
1500	207	3.360	0.04	15.67	1.110	1.36	0.27	3.64	5.49
1750	69	3.470	0.04	13.69	1.359	1.29	0.26	3.60	5.45
1750	103	3.470	0.04	13.69	1.247	1.29	0.26	3.60	5.45
1750	138	3.470	0.04	13.69	1.186	1.29	0.26	3.60	5.45
1750	207	3.470	0.04	13.69	1.125	1.29	0.26	3.60	5.45
2000	69	3.573	0.04	12.24	1.399	1.22	0.26	3.55	5.41
2000	103	3.573	0.04	12.24	1.275	1.22	0.26	3.55	5.41
2000	138	3.573	0.04	12.24	1.207	1.22	0.26	3.55	5.41
2000	207	3.573	0.04	12.24	1.139	1.22	0.26	3.55	5.41
2250	69	3.668	0.04	11.23	1.433	1.17	0.25	3.52	5.37
2250	103	3.668	0.04	11.23	1.298	1.17	0.25	3.52	5.37
2250	138	3.668	0.04	11.23	1.225	1.17	0.25	3.52	5.37
2250	207	3.668	0.04	11.23	1.151	1.17	0.25	3.52	5.37
2500	69	3.759	0.04	10.36	1.467	1.13	0.24	3.48	5.34
2500	103	3.759	0.04	10.36	1.322	1.13	0.24	3.48	5.34
2500	138	3.759	0.04	10.36	1.242	1.13	0.24	3.48	5.34
2500	207	3.759	0.04	10.36	1.163	1.13	0.24	3.48	5.34

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - Triplexed - Double Circuit

25°C Earth Ambient

Condr Size	Sheath Res	OD	Wd	Rac	Qs	Ri	Rj	Re @ 90 loss 75%	Rho & factor 100%
			65°C - Aluminum Conductor - Concentric Strand						
500	69	2.679	0.03	44.75	1.110	1.95	0.27	3.96	5.81
500	103	2.679	0.03	44.75	1.076	1.95	0.27	3.96	5.81
500	138	2.679	0.03	44.75	1.057	1.95	0.27	3.96	5.81
500	207	2.679	0.03	44.75	1.038	1.95	0.27	3.96	5.81
750	69	2.918	0.03	30.05	1.167	1.72	0.32	3.84	5.69
750	103	2.918	0.03	30.05	1.115	1.72	0.32	3.84	5.69
750	138	2.918	0.03	30.05	1.087	1.72	0.32	3.84	5.69
750	207	2.918	0.03	30.05	1.058	1.72	0.32	3.84	5.69
1000	69	3.107	0.03	22.78	1.220	1.56	0.30	3.75	5.60
1000	103	3.107	0.03	22.78	1.152	1.56	0.30	3.75	5.60
1000	138	3.107	0.03	22.78	1.114	1.56	0.30	3.75	5.60
1000	207	3.107	0.03	22.78	1.077	1.56	0.30	3.75	5.60
1250	69	3.240	0.04	18.49	1.269	1.45	0.28	3.69	5.55
1250	103	3.240	0.04	18.49	1.185	1.45	0.28	3.69	5.55
1250	138	3.240	0.04	18.49	1.140	1.45	0.28	3.69	5.55
1250	207	3.240	0.04	18.49	1.094	1.45	0.28	3.69	5.55
1500	69	3.360	0.04	15.67	1.315	1.36	0.27	3.64	5.49
1500	103	3.360	0.04	15.67	1.217	1.36	0.27	3.64	5.49
1500	138	3.360	0.04	15.67	1.164	1.36	0.27	3.64	5.49
1500	207	3.360	0.04	15.67	1.110	1.36	0.27	3.64	5.49
1750	69	3.470	0.04	13.69	1.359	1.29	0.26	3.60	5.45
1750	103	3.470	0.04	13.69	1.247	1.29	0.26	3.60	5.45
1750	138	3.470	0.04	13.69	1.186	1.29	0.26	3.60	5.45
1750	207	3.470	0.04	13.69	1.125	1.29	0.26	3.60	5.45
2000	69	3.573	0.04	12.24	1.399	1.22	0.26	3.55	5.41
2000	103	3.573	0.04	12.24	1.275	1.22	0.26	3.55	5.41
2000	138	3.573	0.04	12.24	1.207	1.22	0.26	3.55	5.41
2000	207	3.573	0.04	12.24	1.139	1.22	0.26	3.55	5.41
2250	69	3.668	0.04	11.23	1.433	1.17	0.25	3.52	5.37
2250	103	3.668	0.04	11.23	1.298	1.17	0.25	3.52	5.37
2250	138	3.668	0.04	11.23	1.225	1.17	0.25	3.52	5.37
2250	207	3.668	0.04	11.23	1.151	1.17	0.25	3.52	5.37
2500	69	3.759	0.04	10.36	1.467	1.13	0.24	3.48	5.34
2500	103	3.759	0.04	10.36	1.322	1.13	0.24	3.48	5.34
2500	138	3.759	0.04	10.36	1.242	1.13	0.24	3.48	5.34
2500	207	3.759	0.04	10.36	1.163	1.13	0.24	3.48	5.34

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - Triplexed - Double Circuit

25°C Earth Ambient

Condr Size	Sheath Res	OD	Wd	Rac	Qs	Ri	Rj	Re @ 90 Rho & loss 75%	factor 100%
50°C - Aluminum Conductor - Concentric Strand									
500	69	2.679	0.03	44.75	1.110	1.95	0.27	3.96	5.81
500	103	2.679	0.03	44.75	1.076	1.95	0.27	3.96	5.81
500	138	2.679	0.03	44.75	1.057	1.95	0.27	3.96	5.81
500	207	2.679	0.03	44.75	1.038	1.95	0.27	3.96	5.81
750	69	2.918	0.03	30.05	1.167	1.72	0.32	3.84	5.69
750	103	2.918	0.03	30.05	1.115	1.72	0.32	3.84	5.69
750	138	2.918	0.03	30.05	1.087	1.72	0.32	3.84	5.69
750	207	2.918	0.03	30.05	1.058	1.72	0.32	3.84	5.69
1000	69	3.107	0.03	22.78	1.220	1.56	0.30	3.75	5.60
1000	103	3.107	0.03	22.78	1.152	1.56	0.30	3.75	5.60
1000	138	3.107	0.03	22.78	1.114	1.56	0.30	3.75	5.60
1000	207	3.107	0.03	22.78	1.077	1.56	0.30	3.75	5.60
1250	69	3.240	0.04	18.49	1.269	1.45	0.28	3.69	5.55
1250	103	3.240	0.04	18.49	1.185	1.45	0.28	3.69	5.55
1250	138	3.240	0.04	18.49	1.140	1.45	0.28	3.69	5.55
1250	207	3.240	0.04	18.49	1.094	1.45	0.28	3.69	5.55
1500	69	3.360	0.04	15.67	1.315	1.36	0.27	3.64	5.49
1500	103	3.360	0.04	15.67	1.217	1.36	0.27	3.64	5.49
1500	138	3.360	0.04	15.67	1.164	1.36	0.27	3.64	5.49
1500	207	3.360	0.04	15.67	1.110	1.36	0.27	3.64	5.49
1750	69	3.470	0.04	13.69	1.359	1.29	0.26	3.60	5.45
1750	103	3.470	0.04	13.69	1.247	1.29	0.26	3.60	5.45
1750	138	3.470	0.04	13.69	1.186	1.29	0.26	3.60	5.45
1750	207	3.470	0.04	13.69	1.125	1.29	0.26	3.60	5.45
2000	69	3.573	0.04	12.24	1.399	1.22	0.26	3.55	5.41
2000	103	3.573	0.04	12.24	1.275	1.22	0.26	3.55	5.41
2000	138	3.573	0.04	12.24	1.207	1.22	0.26	3.55	5.41
2000	207	3.573	0.04	12.24	1.139	1.22	0.26	3.55	5.41
2250	69	3.668	0.04	11.23	1.433	1.17	0.25	3.52	5.37
2250	103	3.668	0.04	11.23	1.298	1.17	0.25	3.52	5.37
2250	138	3.668	0.04	11.23	1.225	1.17	0.25	3.52	5.37
2250	207	3.668	0.04	11.23	1.151	1.17	0.25	3.52	5.37
2500	69	3.759	0.04	10.36	1.467	1.13	0.24	3.48	5.34
2500	103	3.759	0.04	10.36	1.322	1.13	0.24	3.48	5.34
2500	138	3.759	0.04	10.36	1.242	1.13	0.24	3.48	5.34
2500	207	3.759	0.04	10.36	1.163	1.13	0.24	3.48	5.34

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - 1 Circuit - Three Cables - Spaced

25°C Earth Ambient

Condr Size	Shield Res	60 Rho Amps	60 Rho Interface Temp °C	60 Rho Flux w/ft²	90 Rho Amps	90 Rho Interface Temp °C	90 Rho Flux w/ft²	120 Rho Amps	120 Rho Interface Temp °C	120 Rho Flux w/ft²	delta Td for .0010 pf & Rho 60	90	120
						75% LF							
						90°C - Aluminum Conductor - Concentric Strand							
500	69	550	58	32.5	494	64	26.2	452	69	22.0	0.1	0.1	0.2
500	103	562	57	31.2	506	64	25.4	463	68	21.2	0.1	0.1	0.2
500	138	572	57	30.1	515	63	24.4	473	67	20.5	0.1	0.1	0.2
500	207	584	55	28.5	527	62	23.2	485	66	19.7	0.1	0.1	0.2
750	69	653	60	33.2	582	66	26.4	530	70	22.0	0.1	0.1	0.2
750	103	674	59	31.9	603	66	25.5	551	70	21.3	0.1	0.1	0.2
750	138	693	58	30.6	621	65	24.7	568	69	20.7	0.1	0.1	0.2
750	207	717	58	29.1	643	64	23.3	589	68	19.6	0.1	0.1	0.2
1000	69	736	63	34.3	651	69	26.8	591	72	22.1	0.1	0.1	0.2
1000	103	766	61	32.8	680	67	25.9	619	71	21.4	0.1	0.1	0.2
1000	138	792	60	31.5	706	67	25.1	643	71	20.8	0.1	0.1	0.2
1000	207	827	59	29.6	740	66	23.7	674	70	19.8	0.1	0.1	0.2
1000	Open	910	55	23.4	823	61	19.1	757	66	16.1	0.1	0.1	0.2
1250	69	802	65	35.1	706	70	27.2	638	74	22.3	0.1	0.1	0.2
1250	103	840	63	33.7	742	69	26.3	673	73	21.6	0.1	0.1	0.2
1250	138	873	62	32.3	774	68	25.3	703	72	21.0	0.1	0.1	0.2
1250	207	918	61	30.4	818	67	24.1	745	71	20.0	0.1	0.1	0.2
1250	Open	1032	56	23.3	931	62	19.0	855	67	16.0	0.1	0.2	0.2
1500	69	856	66	35.8	750	72	27.5	677	75	22.4	0.1	0.2	0.2
1500	103	902	65	34.3	793	70	26.5	717	74	21.7	0.1	0.2	0.2
1500	138	942	63	32.9	831	69	25.6	753	73	21.0	0.1	0.2	0.2
1500	207	996	62	30.8	884	68	24.3	804	72	20.1	0.1	0.2	0.2
1500	Open	1142	57	23.3	1027	63	18.9	941	68	15.9	0.1	0.2	0.2
1750	69	901	67	36.2	787	73	27.6	709	76	22.3	0.1	0.2	0.2
1750	103	955	66	34.7	837	71	26.6	755	75	21.7	0.1	0.2	0.2
1750	138	1001	65	33.2	881	70	25.8	796	74	21.0	0.1	0.2	0.2
1750	207	1065	63	31.2	941	69	24.4	854	73	20.0	0.1	0.2	0.2
1750	Open	1241	58	23.2	1113	64	18.7	1019	68	15.7	0.1	0.2	0.2
2000	Open	1331	58	23.2	1192	65	18.6	1089	69	15.6	0.1	0.2	0.2
2250	Open	1407	59	23.1	1258	65	18.5	1148	69	15.4	0.1	0.2	0.2
2500	Open	1482	59	23.1	1323	66	18.4	1207	70	15.3	0.1	0.2	0.2

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - 1 Circuit - Three Cables - Spaced

25°C Earth Ambient

Condr Size	Shield Res	60 Rho Amps	60 Rho Interface Temp °C	60 Rho Flux w/ft²	90 Rho Amps	90 Rho Interface Temp °C	90 Rho Flux w/ft²	120 Rho Amps	120 Rho Interface Temp °C	120 Rho Flux w/ft²	delta Td for .0010 pf & Rho 60	90	120
						100% LF							
						90°C - Aluminum Conductor - Concentric Strand							
500	69	496	64	26.4	434	70	20.2	391	74	16.4	0.1	0.1	0.2
500	103	507	64	25.5	446	70	19.7	402	73	16.0	0.1	0.1	0.2
500	138	517	63	24.5	455	69	19.1	411	73	15.5	0.1	0.1	0.2
500	207	529	62	23.4	467	68	18.3	423	72	15.0	0.1	0.1	0.2
750	69	586	67	26.8	511	73	20.4	458	76	16.4	0.1	0.1	0.2
750	103	607	66	25.9	530	72	19.8	476	75	16.0	0.1	0.1	0.2
750	138	623	65	24.9	545	71	19.0	490	75	15.4	0.1	0.1	0.2
750	207	644	64	23.4	565	70	18.1	510	74	14.7	0.1	0.1	0.2
1000	69	656	69	27.2	568	74	20.4	508	78	16.4	0.1	0.1	0.2
1000	103	685	68	26.2	595	74	19.8	533	77	15.9	0.1	0.1	0.2
1000	138	710	67	25.3	617	73	19.2	553	76	15.4	0.1	0.1	0.2
1000	207	739	66	23.7	645	72	18.1	579	75	14.6	0.1	0.1	0.2
1000	Open	825	61	19.2	729	68	15.0	660	72	12.3	0.1	0.1	0.2
1250	69	710	70	27.6	612	76	20.5	546	79	16.3	0.1	0.1	0.2
1250	103	746	69	26.6	645	75	19.9	577	78	15.9	0.1	0.1	0.2
1250	138	778	69	25.7	675	74	19.3	603	78	15.4	0.1	0.1	0.2
1250	207	818	68	24.2	711	73	18.3	637	76	14.6	0.1	0.1	0.2
1250	Open	932	62	19.0	821	69	14.7	742	72	12.0	0.1	0.2	0.2
1500	69	754	71	27.9	647	76	20.5	576	79	16.3	0.1	0.2	0.2
1500	103	797	71	26.8	687	76	19.9	612	79	15.8	0.1	0.2	0.2
1500	138	835	70	25.9	722	75	19.3	645	79	15.5	0.1	0.2	0.2
1500	207	886	69	24.4	766	74	18.3	685	77	14.6	0.1	0.2	0.2
1500	Open	1027	63	18.9	903	69	14.6	815	73	11.9	0.1	0.2	0.2
1750	69	791	72	27.8	677	77	20.5	601	80	16.1	0.1	0.2	0.2
1750	103	841	72	26.9	722	76	19.8	642	79	15.7	0.1	0.2	0.2
1750	138	884	71	26.0	762	76	19.3	679	79	15.3	0.1	0.2	0.2
1750	207	944	70	24.5	814	75	18.3	726	78	14.5	0.1	0.2	0.2
1750	Open	1113	64	18.7	976	70	14.4	879	74	11.7	0.1	0.2	0.2
2000	Open	1190	65	18.6	1042	71	14.2	938	74	11.5	0.1	0.2	0.2
2250	Open	1256	65	18.4	1097	71	14.1	986	75	11.4	0.1	0.2	0.2
2500	Open	1320	66	18.3	1152	72	13.9	1034	75	11.3	0.1	0.2	0.2

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - 1 Circuit - Three Cables - Spaced

25°C Earth Ambient

Condr Size	Shield Res	60 Rho Amps	60 Rho Interface Temp °C	60 Rho Flux w/ft²	90 Rho Amps	90 Rho Interface Temp °C	90 Rho Flux w/ft²	120 Rho Amps	120 Rho Interface Temp °C	120 Rho Flux w/ft²	delta Td for .0010 pf & Rho 60	90	120
						75% LF							
						80°C - Aluminum Conductor - Concentric Strand							
500	69	508	53	27.9	456	59	22.5	417	62	18.8	0.1	0.1	0.1
500	103	520	53	26.9	467	58	21.8	428	62	18.3	0.1	0.1	0.2
500	138	530	52	25.9	477	57	21.1	437	61	17.7	0.1	0.1	0.2
500	207	542	51	24.5	489	56	20.0	449	60	16.8	0.1	0.1	0.2
750	69	601	55	28.5	535	60	22.6	487	64	18.8	0.1	0.1	0.2
750	103	620	54	27.5	554	60	22.0	506	63	18.3	0.1	0.1	0.2
750	138	638	54	26.4	572	59	21.2	523	63	17.8	0.1	0.1	0.2
750	207	662	53	25.0	595	58	20.2	544	62	16.9	0.1	0.1	0.2
1000	69	676	57	29.5	597	62	23.0	541	65	18.9	0.1	0.1	0.2
1000	103	703	56	28.4	623	61	22.3	566	65	18.4	0.1	0.1	0.2
1000	138	728	55	27.2	647	61	21.5	589	64	17.8	0.1	0.1	0.2
1000	207	762	54	25.6	681	60	20.4	621	63	17.1	0.1	0.1	0.2
1000	Open	850	50	19.7	769	56	16.1	707	60	13.6	0.1	0.1	0.2
1250	69	734	59	30.3	645	64	23.3	583	67	19.1	0.1	0.1	0.2
1250	103	768	58	29.1	678	63	22.6	614	66	18.5	0.1	0.1	0.2
1250	138	800	57	27.9	708	62	21.8	642	65	18.0	0.1	0.1	0.2
1250	207	844	56	26.2	751	61	20.7	683	65	17.2	0.1	0.1	0.2
1250	Open	963	51	19.7	869	57	16.0	798	60	13.6	0.1	0.2	0.2
1500	69	782	60	30.7	684	65	23.5	617	68	19.1	0.1	0.2	0.2
1500	103	823	59	29.6	723	64	22.9	653	67	18.6	0.1	0.2	0.2
1500	138	861	58	28.4	758	63	22.1	686	66	18.1	0.1	0.2	0.2
1500	207	914	57	26.6	809	62	20.9	735	65	17.3	0.1	0.2	0.2
1500	Open	1065	52	19.8	958	57	15.9	878	61	13.4	0.1	0.2	0.2
1750	69	822	61	31.0	717	66	23.7	645	68	19.2	0.1	0.2	0.2
1750	103	869	60	29.8	761	65	22.9	686	68	18.6	0.1	0.2	0.2
1750	138	913	59	28.7	802	64	22.1	724	67	18.1	0.1	0.2	0.2
1750	207	974	58	27.0	860	63	21.0	779	66	17.3	0.1	0.2	0.2
1750	Open	1157	53	19.7	1038	58	15.9	950	62	13.3	0.1	0.2	0.2
2000	Open	1240	53	19.7	1110	59	15.7	1015	62	13.1	0.1	0.2	0.2
2250	Open	1311	54	19.6	1172	59	15.6	1070	63	13.1	0.1	0.2	0.2
2500	Open	1380	54	19.5	1231	59	15.5	1123	63	13.0	0.1	0.2	0.2

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - 1 Circuit - Three Cables - Spaced

25°C Earth Ambient

Condr Size	Shield Res	60 Rho Amps	60 Rho Interface Temp °C	60 Rho Flux w/ft²	90 Rho Amps	90 Rho Interface Temp °C	90 Rho Flux w/ft²	120 Rho Amps	120 Rho Interface Temp °C	120 Rho Flux w/ft²	delta Td for .0010 pf & Rho 60	90	120
						100% LF							
						80°C - Aluminum Conductor - Concentric Strand							
500	69	458	59	22.7	401	64	17.4	361	67	14.1	0.1	0.1	0.1
500	103	469	58	22.0	412	63	17.0	371	66	13.7	0.1	0.1	0.2
500	138	478	57	21.2	421	62	16.4	380	66	13.4	0.1	0.1	0.2
500	207	491	56	20.1	433	62	15.7	392	65	12.8	0.1	0.1	0.2
750	69	539	61	23.0	470	66	17.4	421	69	14.0	0.1	0.1	0.2
750	103	558	60	22.3	487	65	17.0	437	68	13.6	0.1	0.1	0.2
750	138	575	59	21.5	502	64	16.4	451	67	13.2	0.1	0.1	0.2
750	207	595	58	20.2	522	63	15.6	470	66	12.6	0.1	0.1	0.2
1000	69	601	62	23.4	520	67	17.5	465	70	14.0	0.1	0.1	0.2
1000	103	627	62	22.6	544	66	17.0	488	69	13.6	0.1	0.1	0.2
1000	138	651	61	21.8	566	66	16.5	507	69	13.3	0.1	0.1	0.2
1000	207	682	60	20.5	594	65	15.6	533	68	12.5	0.1	0.1	0.2
1000	Open	770	56	16.2	680	61	12.7	616	64	10.4	0.1	0.1	0.2
1250	69	649	64	23.7	559	68	17.6	498	71	13.9	0.1	0.1	0.2
1250	103	682	63	22.9	589	67	17.1	525	70	13.7	0.1	0.1	0.2
1250	138	712	62	22.2	616	67	16.6	551	70	13.3	0.1	0.1	0.2
1250	207	753	61	20.9	653	66	15.7	584	69	12.6	0.1	0.1	0.2
1250	Open	870	57	16.0	766	62	12.5	693	65	10.3	0.1	0.2	0.2
1500	69	688	65	23.9	590	69	17.5	524	71	13.9	0.1	0.2	0.2
1500	103	727	64	23.1	625	68	17.1	556	71	13.5	0.1	0.2	0.2
1500	138	762	63	22.3	657	68	16.6	587	70	13.2	0.1	0.2	0.2
1500	207	813	63	21.1	702	67	15.8	627	70	12.6	0.1	0.2	0.2
1500	Open	958	57	15.9	842	63	12.4	760	66	10.1	0.1	0.2	0.2
1750	69	721	66	23.9	616	69	17.5	547	72	13.8	0.1	0.2	0.2
1750	103	765	65	23.1	655	69	17.0	583	71	13.4	0.1	0.2	0.2
1750	138	805	64	22.3	692	68	16.5	616	71	13.1	0.1	0.2	0.2
1750	207	863	63	21.1	745	68	15.7	664	70	12.5	0.1	0.2	0.2
1750	Open	1038	58	15.9	910	63	12.2	820	66	9.9	0.1	0.2	0.2
2000	Open	1110	59	15.7	971	64	12.1	874	67	9.7	0.1	0.2	0.2
2250	Open	1170	59	15.6	1022	64	12.0	919	67	9.7	0.1	0.2	0.2
2500	Open	1229	60	15.5	1072	64	11.8	963	67	9.6	0.1	0.2	0.2

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1140

69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - 1 Circuit - Three Cables - Spaced

25°C Earth Ambient

Condr Size	Shield Res	60 Rho Amps	60 Rho Interface Temp °C	60 Rho Flux w/ft²	90 Rho Amps	90 Rho Interface Temp °C	90 Rho Flux w/ft²	120 Rho Amps	120 Rho Interface Temp °C	120 Rho Flux w/ft²	delta Td for .0010 pf & Rho 60	90	120
						75% LF							
						65°C - Aluminum Conductor - Concentric Strand							
500	69	437	46	20.8	391	50	16.7	358	52	14.0	0.1	0.1	0.1
500	103	446	45	20.2	400	49	16.3	367	52	13.7	0.1	0.1	0.1
500	138	456	45	19.5	410	49	15.8	375	52	13.3	0.1	0.1	0.2
500	207	469	44	18.4	422	48	15.0	387	51	12.5	0.1	0.1	0.2
750	69	513	47	21.3	456	51	16.8	415	54	13.9	0.1	0.1	0.2
750	103	529	47	20.7	471	51	16.4	429	53	13.6	0.1	0.1	0.2
750	138	545	46	19.9	487	50	15.8	444	53	13.2	0.1	0.1	0.2
750	207	568	46	18.7	509	50	15.1	466	52	12.6	0.1	0.1	0.2
1000	69	574	49	22.0	506	53	17.1	458	55	14.0	0.1	0.1	0.2
1000	103	596	48	21.3	527	52	16.6	478	54	13.6	0.1	0.1	0.2
1000	138	618	48	20.4	548	51	16.1	498	54	13.3	0.1	0.1	0.2
1000	207	650	47	19.2	579	51	15.2	528	53	12.7	0.1	0.1	0.2
1000	Open	742	44	14.4	671	47	11.8	617	50	10.0	0.1	0.1	0.2
1250	69	621	50	22.5	545	54	17.3	491	56	14.1	0.1	0.1	0.2
1250	103	648	49	21.8	570	53	16.9	515	55	13.8	0.1	0.1	0.2
1250	138	676	49	21.0	596	52	16.4	540	55	13.4	0.1	0.1	0.2
1250	207	717	48	19.7	636	52	15.4	578	54	12.9	0.1	0.1	0.2
1250	Open	840	44	14.4	758	48	11.7	696	51	9.9	0.1	0.2	0.2
1500	69	659	51	22.9	576	54	17.4	518	56	14.1	0.1	0.2	0.2
1500	103	692	50	22.2	606	54	16.9	546	56	13.9	0.1	0.2	0.2
1500	138	724	50	21.3	636	53	16.5	575	55	13.4	0.1	0.2	0.2
1500	207	773	49	20.0	683	52	15.6	619	55	12.8	0.1	0.2	0.2
1500	Open	928	45	14.3	835	49	11.6	765	51	9.8	0.1	0.2	0.2
1750	69	691	52	23.0	601	55	17.5	540	57	14.1	0.1	0.2	0.2
1750	103	728	51	22.3	636	54	17.1	572	56	13.8	0.1	0.2	0.2
1750	138	766	50	21.6	671	54	16.5	604	56	13.4	0.1	0.2	0.2
1750	207	822	49	20.3	723	53	15.6	654	55	12.9	0.1	0.2	0.2
1750	Open	1008	45	14.3	904	49	11.6	827	52	9.7	0.1	0.2	0.2
2000	Open	1079	46	14.3	966	49	11.4	883	52	9.6	0.1	0.2	0.2
2250	Open	1140	46	14.3	1018	50	11.4	930	52	9.5	0.1	0.2	0.2
2500	Open	1199	46	14.2	1070	50	11.4	976	53	9.5	0.1	0.2	0.2

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - 1 Circuit - Three Cables - Spaced

25°C Earth Ambient

Condr Size	Shield Res	60 Rho Amps	60 Rho Interface Temp °C	60 Rho Flux w/ft²	90 Rho Amps	90 Rho Interface Temp °C	90 Rho Flux w/ft²	120 Rho Amps	120 Rho Interface Temp °C	120 Rho Flux w/ft²	delta Td for .0010 pf & Rho 60	90	120
						100% LF							
						65°C - Aluminum Conductor - Concentric Strand							
500	69	394	50	16.8	344	54	12.8	309	56	10.4	0.1	0.1	0.1
500	103	403	49	16.4	353	53	12.7	317	55	10.3	0.1	0.1	0.1
500	138	411	49	15.8	361	53	12.3	325	55	10.0	0.1	0.1	0.2
500	207	423	48	15.0	373	52	11.7	337	54	9.6	0.1	0.1	0.2
750	69	460	51	17.0	400	55	13.0	358	57	10.3	0.1	0.1	0.2
750	103	475	51	16.6	414	54	12.7	371	57	10.2	0.1	0.1	0.2
750	138	490	50	16.1	428	54	12.3	384	56	9.9	0.1	0.1	0.2
750	207	511	50	15.2	447	53	11.7	402	55	9.4	0.1	0.1	0.2
1000	69	510	53	17.3	440	56	12.9	393	58	10.3	0.1	0.1	0.2
1000	103	530	52	16.8	459	55	12.7	410	57	10.1	0.1	0.1	0.2
1000	138	551	52	16.4	479	55	12.3	429	57	9.8	0.1	0.1	0.2
1000	207	582	51	15.5	506	54	11.7	453	57	9.3	0.1	0.1	0.2
1000	Open	672	47	11.8	594	51	9.2	538	54	7.6	0.1	0.1	0.2
1250	69	548	53	17.6	471	57	13.0	419	58	10.3	0.1	0.1	0.2
1250	103	574	53	17.1	494	56	12.7	441	58	10.1	0.1	0.1	0.2
1250	138	600	53	16.5	518	56	12.4	463	58	9.9	0.1	0.1	0.2
1250	207	639	52	15.7	554	55	11.8	495	57	9.4	0.1	0.1	0.2
1250	Open	758	48	11.7	668	52	9.1	604	54	7.4	0.1	0.2	0.2
1500	69	579	54	17.6	496	57	13.0	440	59	10.2	0.1	0.2	0.2
1500	103	609	54	17.2	523	57	12.6	465	58	10.0	0.1	0.2	0.2
1500	138	640	53	16.6	551	56	12.3	490	58	9.8	0.1	0.2	0.2
1500	207	686	53	15.8	593	56	11.8	529	58	9.4	0.1	0.2	0.2
1500	Open	835	49	11.6	734	52	9.0	662	55	7.3	0.1	0.2	0.2
1750	69	605	55	17.6	516	58	12.9	457	59	10.1	0.1	0.2	0.2
1750	103	639	54	17.2	547	57	12.7	485	59	9.9	0.1	0.2	0.2
1750	138	674	54	16.7	578	57	12.3	514	59	9.7	0.1	0.2	0.2
1750	207	726	53	15.9	626	56	11.8	558	58	9.4	0.1	0.2	0.2
1750	Open	904	49	11.6	792	53	8.9	714	55	7.3	0.1	0.2	0.2
2000	Open	965	49	11.4	845	53	8.8	760	55	7.2	0.1	0.2	0.2
2250	Open	1017	50	11.4	888	53	8.6	799	56	7.1	0.1	0.2	0.2
2500	Open	1068	50	11.3	931	54	8.6	836	56	6.9	0.1	0.2	0.2

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - 1 Circuit - Three Cables - Spaced

25°C Earth Ambient

Condr Size	Shield Res	60 Rho Amps	60 Rho Interface Temp °C	60 Rho Flux w/ft²	90 Rho Amps	90 Rho Interface Temp °C	90 Rho Flux w/ft²	120 Rho Amps	120 Rho Interface Temp °C	120 Rho Flux w/ft²	delta Td for .0010 pf & Rho 60	90	120
						75% LF							
						50°C - Aluminum Conductor - Concentric Strand							
500	69	348	38	13.3	311	41	10.6	284	42	8.8	0.1	0.1	0.1
500	103	355	38	13.0	317	40	10.4	290	42	8.7	0.1	0.1	0.1
500	138	362	38	12.5	325	40	10.1	298	42	8.6	0.1	0.1	0.1
500	207	374	37	11.8	337	40	9.7	308	41	8.1	0.1	0.1	0.2
750	69	406	39	13.6	360	42	10.7	327	43	8.8	0.1	0.1	0.2
750	103	417	39	13.4	370	41	10.5	337	43	8.6	0.1	0.1	0.2
750	138	430	39	12.8	383	41	10.2	349	43	8.5	0.1	0.1	0.2
750	207	450	38	12.0	402	41	9.7	368	42	8.1	0.1	0.1	0.2
1000	69	452	40	14.0	398	43	10.8	359	44	8.9	0.1	0.1	0.2
1000	103	467	40	13.6	412	42	10.7	373	44	8.7	0.1	0.1	0.2
1000	138	484	40	13.3	428	42	10.3	388	43	8.5	0.1	0.1	0.2
1000	207	512	39	12.4	455	41	9.8	414	43	8.1	0.1	0.1	0.2
1000	Open	601	37	9.0	543	39	7.4	499	41	6.3	0.1	0.1	0.2
1250	69	487	41	14.4	426	43	11.0	384	44	9.0	0.1	0.1	0.2
1250	103	505	41	14.0	443	43	10.8	400	44	8.8	0.1	0.1	0.2
1250	138	527	40	13.6	464	42	10.5	419	44	8.6	0.1	0.1	0.2
1250	207	562	40	12.7	497	42	10.0	450	43	8.3	0.1	0.1	0.2
1250	Open	680	37	9.0	613	39	7.3	562	41	6.1	0.1	0.2	0.2
1500	69	515	42	14.6	449	44	11.0	403	45	9.0	0.1	0.2	0.2
1500	103	537	41	14.2	469	43	10.9	422	45	8.8	0.1	0.2	0.2
1500	138	563	41	13.8	493	43	10.6	444	44	8.6	0.1	0.2	0.2
1500	207	603	40	13.0	531	42	10.0	481	44	8.2	0.1	0.2	0.2
1500	Open	751	37	9.0	674	40	7.3	618	41	6.1	0.1	0.2	0.2
1750	69	538	42	14.6	467	44	11.1	419	45	8.9	0.1	0.2	0.2
1750	103	564	42	14.3	491	44	10.9	441	45	8.8	0.1	0.2	0.2
1750	138	593	41	13.9	518	43	10.6	466	45	8.6	0.1	0.2	0.2
1750	207	639	41	13.1	561	43	10.1	506	44	8.3	0.1	0.2	0.2
1750	Open	814	38	8.9	730	40	7.3	668	42	6.1	0.1	0.2	0.2
2000	Open	871	38	9.0	779	40	7.2	712	42	6.0	0.1	0.2	0.2
2250	Open	919	38	9.0	821	41	7.1	749	42	5.9	0.1	0.2	0.2
2500	Open	965	38	8.9	861	41	7.1	785	42	5.9	0.1	0.2	0.2

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - 1 Circuit - Three Cables - Spaced

25°C Earth Ambient

Condr Size	Shield Res	60 Rho Amps	60 Rho Interface Temp °C	60 Rho Flux w/ft²	90 Rho Amps	90 Rho Interface Temp °C	90 Rho Flux w/ft²	120 Rho Amps	120 Rho Interface Temp °C	120 Rho Flux w/ft²	delta Td for .0010 pf & Rho 60	90	120
						100% LF							
						50°C - Aluminum Conductor - Concentric Strand							
500	69	313	41	10.8	273	43	8.3	245	44	6.6	0.1	0.1	0.1
500	103	320	41	10.6	279	43	8.1	251	44	6.6	0.1	0.1	0.1
500	138	327	40	10.3	286	43	7.8	258	44	6.4	0.1	0.1	0.1
500	207	338	40	9.7	297	42	7.6	268	44	6.1	0.1	0.1	0.2
750	69	363	42	10.9	315	44	8.2	282	45	6.5	0.1	0.1	0.2
750	103	373	41	10.7	324	44	8.1	291	45	6.5	0.1	0.1	0.2
750	138	386	41	10.3	336	43	7.9	302	45	6.4	0.1	0.1	0.2
750	207	405	41	9.8	353	43	7.5	317	44	6.0	0.1	0.1	0.2
1000	69	401	43	11.1	345	44	8.2	308	46	6.5	0.1	0.1	0.2
1000	103	415	42	10.8	358	44	8.1	319	45	6.4	0.1	0.1	0.2
1000	138	431	42	10.4	373	44	7.9	334	45	6.3	0.1	0.1	0.2
1000	207	458	42	10.0	398	44	7.5	356	45	6.0	0.1	0.1	0.2
1000	Open	544	39	7.4	481	41	5.8	435	43	4.7	0.1	0.1	0.2
1250	69	429	43	11.2	368	45	8.3	327	46	6.5	0.1	0.1	0.2
1250	103	446	43	11.0	383	45	8.1	341	46	6.4	0.1	0.1	0.2
1250	138	467	42	10.6	402	44	7.9	358	46	6.2	0.1	0.1	0.2
1250	207	500	42	10.1	432	44	7.5	386	45	6.0	0.1	0.1	0.2
1250	Open	614	39	7.3	541	42	5.7	488	43	4.6	0.1	0.2	0.2
1500	69	452	44	11.3	386	45	8.2	342	46	6.5	0.1	0.2	0.2
1500	103	472	43	11.0	404	45	8.1	359	46	6.4	0.1	0.2	0.2
1500	138	496	43	10.7	425	45	7.8	378	46	6.3	0.1	0.2	0.2
1500	207	534	43	10.1	460	45	7.5	411	46	6.0	0.1	0.2	0.2
1500	Open	675	40	7.3	593	42	5.6	535	44	4.5	0.1	0.2	0.2
1750	69	470	44	11.2	400	46	8.1	354	47	6.4	0.1	0.2	0.2
1750	103	494	44	11.0	421	45	8.0	373	46	6.3	0.1	0.2	0.2
1750	138	520	43	10.7	445	45	7.8	395	46	6.2	0.1	0.2	0.2
1750	207	564	43	10.1	484	45	7.5	431	46	5.9	0.1	0.2	0.2
1750	Open	730	40	7.3	640	42	5.5	576	44	4.5	0.1	0.2	0.2
2000	Open	779	40	7.2	681	43	5.5	613	44	4.5	0.1	0.2	0.2
2250	Open	820	41	7.1	716	43	5.4	643	44	4.4	0.1	0.2	0.2
2500	Open	860	41	7.1	749	43	5.4	673	44	4.4	0.1	0.2	0.2

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - 1 Circuit - Three Cables - Spaced

25°C Earth Ambient

Condr Size	Shield Res	60 Rho 75 LF	60 Rho 100 LF	90 Rho 75 LF	90 Rho 100 LF	120 Rho 75 LF	120 Rho 100 LF
		Total Watts/ft					
90°C - Aluminum Conductor - Concentric Strand							
500	69	62.6	51.0	50.5	39.0	42.3	31.7
500	103	61.0	49.6	49.5	38.4	41.4	31.2
500	138	59.5	48.6	48.2	37.7	40.7	30.8
500	207	57.3	47.0	46.7	36.7	39.5	30.1
750	69	68.3	55.0	54.2	41.8	45.0	33.6
750	103	66.5	53.9	53.2	41.1	44.4	33.2
750	138	65.0	52.6	52.2	40.2	43.7	32.5
750	207	62.8	50.7	50.5	39.0	42.4	31.8
1000	69	73.6	58.5	57.6	43.9	47.5	35.1
1000	103	71.8	57.4	56.6	43.3	46.9	34.8
1000	138	70.1	56.3	55.7	42.6	46.2	34.2
1000	207	67.6	54.0	54.1	41.2	44.9	33.2
1000	Open	56.8	46.7	46.4	36.5	39.3	29.9
1250	69	77.8	61.0	60.3	45.3	49.2	36.1
1250	103	75.8	59.8	59.2	44.7	48.7	35.8
1250	138	74.0	58.8	58.2	44.3	48.0	35.4
1250	207	71.3	56.7	56.7	42.8	47.0	34.4
1250	Open	59.1	48.2	48.1	37.4	40.6	30.6
1500	69	81.1	63.0	62.3	46.4	50.8	36.8
1500	103	79.2	61.9	61.3	46.0	50.1	36.5
1500	138	77.4	60.8	60.3	45.5	49.5	36.3
1500	207	74.6	59.0	58.8	44.2	48.6	35.3
1500	Open	61.3	49.6	49.6	38.3	41.6	31.3
1750	69	83.8	64.6	64.0	47.4	51.9	37.4
1750	103	82.1	63.7	63.1	47.0	51.4	37.2
1750	138	80.2	62.6	62.2	46.6	50.8	37.0
1750	207	77.5	60.9	60.5	45.3	49.9	36.1
1750	Open	63.1	50.8	50.8	39.1	42.6	31.7
2000	Open	64.7	51.7	51.9	39.7	43.3	32.2
2250	Open	66.1	52.7	52.9	40.2	44.1	32.5
2500	Open	67.5	53.6	53.8	40.8	44.8	32.9

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - 1 Circuit - Three Cables - Spaced

25°C Earth Ambient

Condr Size	Shield Res	60 Rho 75 LF	60 Rho 100 LF	90 Rho 75 LF	90 Rho 100 LF	120 Rho 75 LF	120 Rho 100 LF
		Total Watts/ft					
80°C - Aluminum Conductor - Concentric Strand							
500	69	53.5	43.5	43.1	33.4	36.1	27.1
500	103	52.4	42.6	42.2	32.9	35.5	26.7
500	138	51.1	41.6	41.4	32.3	34.8	26.3
500	207	49.1	40.3	40.0	31.4	33.7	25.7
750	69	58.3	46.9	46.3	35.7	38.3	28.7
750	103	56.9	46.1	45.4	35.1	37.9	28.3
750	138	55.6	45.2	44.7	34.5	37.4	27.8
750	207	53.7	43.4	43.4	33.4	36.3	27.1
1000	69	63.0	49.8	49.2	37.3	40.4	29.9
1000	103	61.5	48.9	48.3	36.9	39.9	29.7
1000	138	60.1	48.1	47.5	36.4	39.4	29.2
1000	207	57.9	46.4	46.3	35.2	38.5	28.4
1000	Open	48.0	39.4	39.3	30.8	33.2	25.3
1250	69	66.4	52.0	51.3	38.6	41.9	30.6
1250	103	64.9	51.2	50.6	38.2	41.5	30.4
1250	138	63.4	50.3	49.7	37.7	40.9	30.1
1250	207	61.2	48.7	48.5	36.7	40.1	29.3
1250	Open	50.0	40.8	40.7	31.7	34.3	25.9
1500	69	69.3	53.7	53.1	39.5	43.2	31.2
1500	103	67.8	52.9	52.4	39.2	42.7	31.0
1500	138	66.4	52.0	51.5	38.7	42.2	30.9
1500	207	64.0	50.6	50.1	37.8	41.4	30.2
1500	Open	51.8	41.9	41.9	32.4	35.2	26.4
1750	69	71.7	55.2	54.6	40.3	44.2	31.8
1750	103	70.1	54.4	53.8	39.9	43.8	31.6
1750	138	68.8	53.5	53.1	39.5	43.3	31.4
1750	207	66.3	52.1	51.7	38.8	42.4	30.9
1750	Open	53.3	42.9	42.9	33.0	36.0	26.8
2000	Open	54.7	43.9	43.9	33.6	36.7	27.2
2250	Open	56.0	44.6	44.8	34.1	37.3	27.6
2500	Open	57.1	45.3	45.5	34.5	37.9	27.9

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - 1 Circuit - Three Cables - Spaced

25°C Earth Ambient

Condr Size	Shield Res	60 Rho 75 LF	60 Rho 100 LF	90 Rho 75 LF	90 Rho 100 LF	120 Rho 75 LF	120 Rho 100 LF
		Total Watts/ft					
65°C - Aluminum Conductor - Concentric Strand							
500	69	39.6	32.2	31.7	24.6	26.6	19.8
500	103	38.7	31.7	31.2	24.3	26.3	19.6
500	138	38.0	30.9	30.7	23.8	25.7	19.3
500	207	36.6	29.8	29.6	23.2	24.9	18.9
750	69	43.1	34.7	34.1	26.2	28.2	21.0
750	103	42.3	34.1	33.5	25.9	27.8	20.8
750	138	41.3	33.4	33.0	25.5	27.5	20.6
750	207	39.9	32.3	32.0	24.7	26.9	20.0
1000	69	46.5	36.7	36.2	27.4	29.6	21.9
1000	103	45.6	36.1	35.7	27.1	29.4	21.6
1000	138	44.6	35.5	35.1	26.8	29.0	21.5
1000	207	43.0	34.5	34.1	26.1	28.4	20.9
1000	Open	34.9	28.6	28.6	22.4	24.2	18.4
1250	69	49.1	38.2	37.8	28.3	30.7	22.4
1250	103	48.1	37.7	37.2	28.0	30.4	22.3
1250	138	47.1	37.1	36.6	27.7	30.1	22.2
1250	207	45.5	36.1	35.8	27.2	29.6	21.7
1250	Open	36.3	29.6	29.6	23.0	25.0	18.8
1500	69	51.1	39.5	39.0	29.0	31.6	22.8
1500	103	50.2	38.9	38.5	28.7	31.3	22.7
1500	138	49.1	38.4	37.9	28.5	31.0	22.6
1500	207	47.4	37.4	37.1	28.0	30.5	22.3
1500	Open	37.6	30.5	30.5	23.6	25.6	19.2
1750	69	52.8	40.5	40.0	29.5	32.3	23.2
1750	103	51.9	40.0	39.6	29.3	32.1	23.1
1750	138	51.0	39.5	39.1	29.1	31.7	23.0
1750	207	49.2	38.4	38.1	28.6	31.2	22.8
1750	Open	38.8	31.3	31.3	24.0	26.2	19.5
2000	Open	39.8	31.9	31.9	24.5	26.7	19.8
2250	Open	40.8	32.5	32.5	24.8	27.2	20.1
2500	Open	41.5	33.0	33.1	25.1	27.6	20.3

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - 1 Circuit - Three Cables - Spaced

25°C Earth Ambient

Condr Size	Shield Res	60 Rho 75 LF	60 Rho 100 LF	90 Rho 75 LF	90 Rho 100 LF	120 Rho 75 LF	120 Rho 100 LF
		Total Watts/ft					
50°C - Aluminum Conductor - Concentric Strand							
500	69	25.2	20.4	20.1	15.5	16.8	12.5
500	103	24.8	20.2	19.8	15.4	16.6	12.5
500	138	24.2	19.8	19.5	15.1	16.4	12.3
500	207	23.4	19.1	19.0	14.8	15.9	12.0
750	69	27.4	21.9	21.6	16.5	17.8	13.3
750	103	27.0	21.6	21.2	16.3	17.6	13.2
750	138	26.4	21.3	21.0	16.2	17.4	13.1
750	207	25.5	20.7	20.4	15.7	17.1	12.7
1000	69	29.6	23.3	23.0	17.3	18.7	13.8
1000	103	29.1	23.0	22.7	17.1	18.6	13.6
1000	138	28.5	22.6	22.3	16.9	18.3	13.6
1000	207	27.5	22.0	21.7	16.7	18.0	13.3
1000	Open	21.9	17.9	17.9	14.0	15.1	11.5
1250	69	31.2	24.2	23.9	17.8	19.4	14.1
1250	103	30.6	23.9	23.6	17.6	19.2	14.0
1250	138	30.0	23.6	23.3	17.5	19.0	13.9
1250	207	29.0	23.0	22.7	17.2	18.7	13.8
1250	Open	22.8	18.6	18.5	14.4	15.6	11.8
1500	69	32.4	25.0	24.6	18.2	19.9	14.3
1500	103	31.9	24.7	24.3	18.1	19.7	14.3
1500	138	31.4	24.4	24.1	17.9	19.5	14.2
1500	207	30.2	23.7	23.5	17.6	19.3	14.1
1500	Open	23.6	19.1	19.0	14.7	16.0	12.0
1750	69	33.4	25.5	25.2	18.5	20.3	14.5
1750	103	33.0	25.3	25.0	18.4	20.2	14.5
1750	138	32.4	25.0	24.8	18.3	20.1	14.5
1750	207	31.4	24.5	24.2	18.1	19.7	14.3
1750	Open	24.3	19.6	19.6	15.1	16.4	12.2
2000	Open	24.9	19.9	19.9	15.3	16.7	12.4
2250	Open	25.5	20.3	20.4	15.5	17.0	12.5
2500	Open	25.9	20.6	20.7	15.7	17.2	12.7

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - 1 Circuit - Three Cables - Spaced

25°C Earth Ambient

Condr Size	Sheath Res	OD	Wd	Rac	Qs	Ri	Rj	Re @ 90 loss 75%	Rho & factor 100%
			90°C - Aluminum Conductor - Concentric Strand						
500	69	2.679	0.03	44.70	1.605	1.95	0.27	2.22	3.57
500	103	2.679	0.03	44.70	1.385	1.95	0.27	2.41	3.57
500	138	2.679	0.03	44.70	1.308	1.95	0.27	2.41	3.57
500	207	2.679	0.03	44.70	1.216	1.95	0.27	2.41	3.57
750	69	2.918	0.03	30.02	1.868	1.72	0.32	2.18	3.53
750	103	2.918	0.03	30.02	1.692	1.72	0.32	2.18	3.53
750	138	2.918	0.03	30.02	1.554	1.72	0.32	2.18	3.53
750	207	2.918	0.03	30.02	1.304	1.72	0.32	2.37	3.53
1000	69	3.107	0.03	22.74	2.109	1.56	0.30	2.15	3.19
1000	103	3.107	0.03	22.74	1.879	1.56	0.30	2.15	3.19
1000	138	3.107	0.03	22.74	1.701	1.56	0.30	2.15	3.50
1000	207	3.107	0.03	22.74	1.384	1.56	0.30	2.34	3.50
1000	Open	3.107	0.03	22.74	1.004	1.56	0.30	2.34	3.50
1250	69	3.240	0.04	18.39	2.330	1.45	0.28	2.13	3.17
1250	103	3.240	0.04	18.39	2.049	1.45	0.28	2.13	3.17
1250	138	3.240	0.04	18.39	1.834	1.45	0.28	2.13	3.48
1250	207	3.240	0.04	18.39	1.581	1.45	0.28	2.13	3.48
1250	Open	3.240	0.04	18.39	1.005	1.45	0.28	2.32	3.48
1500	69	3.360	0.04	15.55	2.534	1.36	0.27	2.12	3.15
1500	103	3.360	0.04	15.55	2.204	1.36	0.27	2.12	3.15
1500	138	3.360	0.04	15.55	1.956	1.36	0.27	2.12	3.15
1500	207	3.360	0.04	15.55	1.665	1.36	0.27	2.12	3.46
1500	Open	3.360	0.04	15.55	1.007	1.36	0.27	2.31	3.46
1750	69	3.470	0.04	13.54	2.720	1.29	0.26	2.10	3.14
1750	103	3.470	0.04	13.54	2.345	1.29	0.26	2.10	3.14
1750	138	3.470	0.04	13.54	2.066	1.29	0.26	2.10	3.14
1750	207	3.470	0.04	13.54	1.740	1.29	0.26	2.10	3.45
1750	Open	3.470	0.04	13.54	1.008	1.29	0.26	2.29	3.45
2000	Open	3.573	0.04	12.06	1.010	1.22	0.26	2.28	3.43
2250	Open	3.668	0.04	11.02	1.012	1.17	0.25	2.27	3.42
2500	Open	3.759	0.04	10.12	1.013	1.13	0.24	2.25	3.41

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - 1 Circuit - Three Cables - Spaced

25°C Earth Ambient

Condr Size	Sheath Res	OD	Wd	Rac	Qs	Ri	Rj	Re @ 90 Rho & loss 75%	Re @ 90 Rho & factor 100%
			80°C - Aluminum Conductor - Concentric Strand						
500	69	2.679	0.03	44.70	1.605	1.95	0.27	2.22	3.57
500	103	2.679	0.03	44.70	1.385	1.95	0.27	2.41	3.57
500	138	2.679	0.03	44.70	1.308	1.95	0.27	2.41	3.57
500	207	2.679	0.03	44.70	1.216	1.95	0.27	2.41	3.57
750	69	2.918	0.03	30.02	1.868	1.72	0.32	2.18	3.53
750	103	2.918	0.03	30.02	1.692	1.72	0.32	2.18	3.53
750	138	2.918	0.03	30.02	1.554	1.72	0.32	2.18	3.53
750	207	2.918	0.03	30.02	1.304	1.72	0.32	2.37	3.53
1000	69	3.107	0.03	22.74	2.109	1.56	0.30	2.15	3.19
1000	103	3.107	0.03	22.74	1.879	1.56	0.30	2.15	3.19
1000	138	3.107	0.03	22.74	1.701	1.56	0.30	2.15	3.50
1000	207	3.107	0.03	22.74	1.384	1.56	0.30	2.34	3.50
1000	Open	3.107	0.03	22.74	1.004	1.56	0.30	2.34	3.50
1250	69	3.240	0.04	18.39	2.330	1.45	0.28	2.13	3.17
1250	103	3.240	0.04	18.39	2.049	1.45	0.28	2.13	3.17
1250	138	3.240	0.04	18.39	1.834	1.45	0.28	2.13	3.48
1250	207	3.240	0.04	18.39	1.581	1.45	0.28	2.13	3.48
1250	Open	3.240	0.04	18.39	1.005	1.45	0.28	2.32	3.48
1500	69	3.360	0.04	15.55	2.534	1.36	0.27	2.12	3.15
1500	103	3.360	0.04	15.55	2.204	1.36	0.27	2.12	3.15
1500	138	3.360	0.04	15.55	1.956	1.36	0.27	2.12	3.15
1500	207	3.360	0.04	15.55	1.665	1.36	0.27	2.12	3.46
1500	Open	3.360	0.04	15.55	1.007	1.36	0.27	2.31	3.46
1750	69	3.470	0.04	13.54	2.720	1.29	0.26	2.10	3.14
1750	103	3.470	0.04	13.54	2.345	1.29	0.26	2.10	3.14
1750	138	3.470	0.04	13.54	2.066	1.29	0.26	2.10	3.14
1750	207	3.470	0.04	13.54	1.740	1.29	0.26	2.10	3.45
1750	Open	3.470	0.04	13.54	1.008	1.29	0.26	2.29	3.45
2000	Open	3.573	0.04	12.06	1.010	1.22	0.26	2.28	3.43
2250	Open	3.668	0.04	11.02	1.012	1.17	0.25	2.27	3.42
2500	Open	3.759	0.04	10.12	1.013	1.13	0.24	2.25	3.41

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - 1 Circuit - Three Cables - Spaced

25°C Earth Ambient

Condr Size	Sheath Res	OD	Wd	Rac	Qs	Ri	Rj	Re @ 90 Rho & loss 75%	Re @ 90 Rho & factor 100%
			65°C - Aluminum Conductor - Concentric Strand						
500	69	2.679	0.03	44.70	1.605	1.95	0.27	2.22	3.57
500	103	2.679	0.03	44.70	1.385	1.95	0.27	2.41	3.57
500	138	2.679	0.03	44.70	1.308	1.95	0.27	2.41	3.57
500	207	2.679	0.03	44.70	1.216	1.95	0.27	2.41	3.57
750	69	2.918	0.03	30.02	1.868	1.72	0.32	2.18	3.53
750	103	2.918	0.03	30.02	1.692	1.72	0.32	2.18	3.53
750	138	2.918	0.03	30.02	1.554	1.72	0.32	2.18	3.53
750	207	2.918	0.03	30.02	1.304	1.72	0.32	2.37	3.53
1000	69	3.107	0.03	22.74	2.109	1.56	0.30	2.15	3.19
1000	103	3.107	0.03	22.74	1.879	1.56	0.30	2.15	3.19
1000	138	3.107	0.03	22.74	1.701	1.56	0.30	2.15	3.50
1000	207	3.107	0.03	22.74	1.384	1.56	0.30	2.34	3.50
1000	Open	3.107	0.03	22.74	1.004	1.56	0.30	2.34	3.50
1250	69	3.240	0.04	18.39	2.330	1.45	0.28	2.13	3.17
1250	103	3.240	0.04	18.39	2.049	1.45	0.28	2.13	3.17
1250	138	3.240	0.04	18.39	1.834	1.45	0.28	2.13	3.48
1250	207	3.240	0.04	18.39	1.581	1.45	0.28	2.13	3.48
1250	Open	3.240	0.04	18.39	1.005	1.45	0.28	2.32	3.48
1500	69	3.360	0.04	15.55	2.534	1.36	0.27	2.12	3.15
1500	103	3.360	0.04	15.55	2.204	1.36	0.27	2.12	3.15
1500	138	3.360	0.04	15.55	1.956	1.36	0.27	2.12	3.15
1500	207	3.360	0.04	15.55	1.665	1.36	0.27	2.12	3.46
1500	Open	3.360	0.04	15.55	1.007	1.36	0.27	2.31	3.46
1750	69	3.470	0.04	13.54	2.720	1.29	0.26	2.10	3.14
1750	103	3.470	0.04	13.54	2.345	1.29	0.26	2.10	3.14
1750	138	3.470	0.04	13.54	2.066	1.29	0.26	2.10	3.14
1750	207	3.470	0.04	13.54	1.740	1.29	0.26	2.10	3.45
1750	Open	3.470	0.04	13.54	1.008	1.29	0.26	2.29	3.45
2000	Open	3.573	0.04	12.06	1.010	1.22	0.26	2.28	3.43
2250	Open	3.668	0.04	11.02	1.012	1.17	0.25	2.27	3.42
2500	Open	3.759	0.04	10.12	1.013	1.13	0.24	2.25	3.41

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - 1 Circuit - Three Cables - Spaced

25°C Earth Ambient

Condr Size	Sheath Res	OD	Wd	Rac	Qs	Ri	Rj	Re @ 90 Rho & loss factor 75%	Re @ 90 Rho & loss factor 100%
			50°C - Aluminum Conductor - Concentric Strand						
500	69	2.679	0.03	44.70	1.605	1.95	0.27	2.22	3.57
500	103	2.679	0.03	44.70	1.385	1.95	0.27	2.41	3.57
500	138	2.679	0.03	44.70	1.308	1.95	0.27	2.41	3.57
500	207	2.679	0.03	44.70	1.216	1.95	0.27	2.41	3.57
750	69	2.918	0.03	30.02	1.868	1.72	0.32	2.18	3.53
750	103	2.918	0.03	30.02	1.692	1.72	0.32	2.18	3.53
750	138	2.918	0.03	30.02	1.554	1.72	0.32	2.18	3.53
750	207	2.918	0.03	30.02	1.304	1.72	0.32	2.37	3.53
1000	69	3.107	0.03	22.74	2.109	1.56	0.30	2.15	3.19
1000	103	3.107	0.03	22.74	1.879	1.56	0.30	2.15	3.19
1000	138	3.107	0.03	22.74	1.701	1.56	0.30	2.15	3.50
1000	207	3.107	0.03	22.74	1.384	1.56	0.30	2.34	3.50
1000	Open	3.107	0.03	22.74	1.004	1.56	0.30	2.34	3.50
1250	69	3.240	0.04	18.39	2.330	1.45	0.28	2.13	3.17
1250	103	3.240	0.04	18.39	2.049	1.45	0.28	2.13	3.17
1250	138	3.240	0.04	18.39	1.834	1.45	0.28	2.13	3.48
1250	207	3.240	0.04	18.39	1.581	1.45	0.28	2.13	3.48
1250	Open	3.240	0.04	18.39	1.005	1.45	0.28	2.32	3.48
1500	69	3.360	0.04	15.55	2.534	1.36	0.27	2.12	3.15
1500	103	3.360	0.04	15.55	2.204	1.36	0.27	2.12	3.15
1500	138	3.360	0.04	15.55	1.956	1.36	0.27	2.12	3.15
1500	207	3.360	0.04	15.55	1.665	1.36	0.27	2.12	3.46
1500	Open	3.360	0.04	15.55	1.007	1.36	0.27	2.31	3.46
1750	69	3.470	0.04	13.54	2.720	1.29	0.26	2.10	3.14
1750	103	3.470	0.04	13.54	2.345	1.29	0.26	2.10	3.14
1750	138	3.470	0.04	13.54	2.066	1.29	0.26	2.10	3.14
1750	207	3.470	0.04	13.54	1.740	1.29	0.26	2.10	3.45
1750	Open	3.470	0.04	13.54	1.008	1.29	0.26	2.29	3.45
2000	Open	3.573	0.04	12.06	1.010	1.22	0.26	2.28	3.43
2250	Open	3.668	0.04	11.02	1.012	1.17	0.25	2.27	3.42
2500	Open	3.759	0.04	10.12	1.013	1.13	0.24	2.25	3.41

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1152

69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - 2 Circuits - Six Cables - Spaced

25°C Earth Ambient

Condr Size	Shield Res	60 Rho Amps	60 Rho Interface Temp °C	60 Rho Flux w/ft²	90 Rho Amps	90 Rho Interface Temp °C	90 Rho Flux w/ft²	120 Rho Amps	120 Rho Interface Temp °C	120 Rho Flux w/ft²	delta Td for .0010 pf & Rho 60	90	120
						75% LF							
						90°C - Aluminum Conductor - Concentric Strand							
500	69	507	62	28.5	448	68	22.2	407	72	18.4	0.1	0.1	0.2
500	103	519	61	27.7	461	67	21.7	418	71	18.0	0.1	0.1	0.2
500	138	531	60	26.7	472	67	21.1	430	71	17.5	0.1	0.1	0.2
500	207	545	59	25.5	487	66	20.2	444	70	17.0	0.1	0.1	0.2
750	69	596	65	28.9	524	71	22.3	473	74	18.2	0.1	0.2	0.2
750	103	617	64	27.9	543	70	21.6	492	73	17.7	0.1	0.2	0.2
750	138	636	63	27.0	562	69	21.1	508	73	17.3	0.1	0.2	0.2
750	207	661	61	25.5	586	68	20.0	533	71	16.6	0.1	0.2	0.2
1000	69	667	67	29.5	581	73	22.4	523	76	18.2	0.1	0.2	0.2
1000	103	695	66	28.4	608	72	21.8	549	75	17.7	0.1	0.2	0.2
1000	138	721	65	27.4	633	71	21.1	572	74	17.2	0.1	0.2	0.2
1000	207	757	64	25.9	668	69	20.2	603	73	16.5	0.1	0.2	0.2
1000	Open	865	58	21.1	776	65	17.0	709	69	14.1	0.1	0.2	0.2
1250	69	721	69	29.9	627	74	22.6	562	77	18.2	0.1	0.2	0.2
1250	103	757	68	28.9	659	73	21.9	592	76	17.7	0.1	0.2	0.2
1250	138	790	67	27.9	690	72	21.3	620	76	17.2	0.1	0.2	0.2
1250	207	835	65	26.3	734	71	20.3	661	75	16.5	0.1	0.2	0.2
1250	Open	980	59	21.0	875	66	16.7	799	70	14.0	0.1	0.2	0.2
1500	69	766	70	30.4	663	75	22.7	593	78	18.2	0.1	0.2	0.2
1500	103	808	69	29.2	702	74	22.1	629	78	17.7	0.1	0.2	0.2
1500	138	847	68	28.2	737	74	21.4	662	77	17.2	0.1	0.2	0.2
1500	207	902	67	26.6	790	72	20.5	708	76	16.5	0.1	0.2	0.2
1500	Open	1083	60	21.0	964	67	16.6	879	71	13.9	0.1	0.2	0.2
1750	69	803	72	30.5	693	76	22.7	618	79	18.1	0.1	0.2	0.3
1750	103	851	70	29.4	737	75	22.0	659	78	17.6	0.1	0.2	0.3
1750	138	896	69	28.3	777	74	21.4	697	78	17.2	0.1	0.2	0.3
1750	207	959	68	26.7	836	73	20.4	750	76	16.4	0.1	0.2	0.3
1750	Open	1175	61	20.9	1043	67	16.5	946	71	13.5	0.1	0.2	0.3
2000	Open	1258	62	20.8	1114	68	16.4	1010	72	13.5	0.2	0.2	0.3
2250	Open	1329	62	20.7	1177	68	16.2	1069	72	13.4	0.2	0.2	0.3
2500	Open	1398	63	20.6	1236	69	16.2	1122	73	13.3	0.2	0.2	0.3

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - 2 Circuits - Six Cables - Spaced

25°C Earth Ambient

Condr Size	Shield Res	60 Rho Amps	60 Rho Interface Temp °C	60 Rho Flux w/ft²	90 Rho Amps	90 Rho Interface Temp °C	90 Rho Flux w/ft²	120 Rho Amps	120 Rho Interface Temp °C	120 Rho Flux w/ft²	delta Td for .0010 pf & Rho 60	90	120
						100% LF							
						90°C - Aluminum Conductor - Concentric Strand							
500	69	449	68	22.4	389	74	16.8	348	77	13.4	0.1	0.1	0.2
500	103	461	67	21.8	400	73	16.4	359	76	13.3	0.1	0.1	0.2
500	138	473	67	21.2	411	72	16.0	368	76	12.8	0.1	0.1	0.2
500	207	487	66	20.4	425	71	15.5	382	75	12.5	0.1	0.1	0.2
750	69	524	71	22.3	450	76	16.5	401	79	13.1	0.1	0.2	0.2
750	103	543	70	21.6	469	75	16.1	418	78	12.8	0.1	0.2	0.2
750	138	561	69	20.9	485	74	15.7	434	77	12.6	0.1	0.2	0.2
750	207	586	67	20.0	508	73	15.1	455	76	12.0	0.1	0.2	0.2
1000	69	581	73	22.4	497	77	16.5	442	80	12.9	0.1	0.2	0.2
1000	103	609	72	21.8	521	77	16.0	464	79	12.7	0.1	0.2	0.2
1000	138	632	71	21.0	543	76	15.5	484	79	12.4	0.1	0.2	0.2
1000	207	667	69	20.2	574	75	14.9	513	78	11.9	0.1	0.2	0.2
1000	Open	774	65	16.8	675	71	12.8	608	74	10.4	0.1	0.2	0.2
1250	69	626	74	22.5	533	79	16.4	472	81	12.9	0.1	0.2	0.2
1250	103	659	73	21.9	563	78	16.0	499	80	12.6	0.1	0.2	0.2
1250	138	689	72	21.2	590	77	15.6	524	80	12.3	0.1	0.2	0.2
1250	207	730	71	20.2	628	76	14.9	559	79	11.8	0.1	0.2	0.2
1250	Open	872	66	16.7	759	72	12.6	683	75	10.3	0.1	0.2	0.2
1500	69	661	75	22.6	561	80	16.3	496	82	12.7	0.1	0.2	0.2
1500	103	700	75	21.9	596	79	15.9	527	81	12.5	0.1	0.2	0.2
1500	138	737	74	21.3	627	78	15.5	558	81	12.3	0.1	0.2	0.2
1500	207	786	72	20.2	673	77	14.8	598	80	11.7	0.1	0.2	0.2
1500	Open	961	67	16.6	833	72	12.4	748	76	10.0	0.1	0.2	0.2
1750	69	690	76	22.5	585	80	16.2	516	82	12.7	0.1	0.2	0.3
1750	103	735	75	21.9	623	80	15.7	551	82	12.3	0.1	0.2	0.3
1750	138	775	75	21.2	659	79	15.3	583	81	12.0	0.1	0.2	0.3
1750	207	833	73	20.3	711	78	14.8	631	80	11.7	0.1	0.2	0.3
1750	Open	1040	68	16.4	899	73	12.2	806	76	9.9	0.1	0.2	0.3
2000	Open	1107	68	16.1	960	74	12.2	859	77	9.7	0.2	0.2	0.3
2250	Open	1167	69	15.9	1010	74	12.0	903	77	9.6	0.2	0.2	0.3
2500	Open	1230	69	16.0	1059	74	11.8	945	78	9.5	0.2	0.2	0.3

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1154

69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - 2 Circuits - Six Cables - Spaced

25°C Earth Ambient

Condr Size	Shield Res	60 Rho Amps	60 Rho Interface Temp °C	60 Rho Flux w/ft²	90 Rho Amps	90 Rho Interface Temp °C	90 Rho Flux w/ft²	120 Rho Amps	120 Rho Interface Temp °C	120 Rho Flux w/ft²	delta Td for .0010 pf & Rho 60	90	120
						75% LF							
						80°C - Aluminum Conductor - Concentric Strand							
500	69	468	57	24.5	414	62	19.1	375	65	15.7	0.1	0.1	0.2
500	103	480	56	23.8	425	61	18.7	385	65	15.4	0.1	0.1	0.2
500	138	490	55	23.0	435	61	18.1	396	64	15.0	0.1	0.1	0.2
500	207	505	54	21.8	450	60	17.4	411	63	14.4	0.1	0.1	0.2
750	69	548	59	24.7	481	64	19.1	434	67	15.6	0.1	0.2	0.2
750	103	567	58	24.1	499	63	18.6	451	66	15.2	0.1	0.2	0.2
750	138	585	57	23.2	516	62	18.1	467	66	14.8	0.1	0.2	0.2
750	207	610	56	22.0	540	61	17.3	491	65	14.3	0.1	0.2	0.2
1000	69	611	61	25.2	532	66	19.2	479	68	15.5	0.1	0.2	0.2
1000	103	636	60	24.5	556	65	18.7	501	68	15.1	0.1	0.2	0.2
1000	138	661	59	23.6	579	64	18.2	523	67	14.8	0.1	0.2	0.2
1000	207	696	58	22.4	613	63	17.3	553	66	14.1	0.1	0.2	0.2
1000	Open	808	53	17.8	724	59	14.4	662	62	11.9	0.1	0.2	0.2
1250	69	660	63	25.7	572	67	19.3	513	70	15.6	0.1	0.2	0.2
1250	103	691	62	24.9	601	66	18.9	540	69	15.2	0.1	0.2	0.2
1250	138	722	61	24.1	630	65	18.4	566	68	14.7	0.1	0.2	0.2
1250	207	766	59	22.6	672	64	17.4	604	67	14.1	0.1	0.2	0.2
1250	Open	914	54	17.8	817	60	14.3	746	63	11.9	0.1	0.2	0.2
1500	69	699	64	25.9	604	68	19.3	540	70	15.5	0.1	0.2	0.2
1500	103	736	63	25.1	638	67	18.9	571	70	15.1	0.1	0.2	0.2
1500	138	772	62	24.3	671	66	18.3	602	69	14.8	0.1	0.2	0.2
1500	207	825	61	23.0	720	65	17.5	647	68	14.1	0.1	0.2	0.2
1500	Open	1010	55	17.7	899	60	14.1	820	64	11.7	0.1	0.2	0.2
1750	69	732	65	26.1	631	69	19.4	562	71	15.4	0.1	0.2	0.3
1750	103	774	64	25.3	669	68	18.9	598	70	15.1	0.1	0.2	0.3
1750	138	815	63	24.4	706	67	18.4	632	70	14.6	0.1	0.2	0.3
1750	207	877	62	23.1	763	66	17.5	683	69	14.1	0.1	0.2	0.3
1750	Open	1096	56	17.7	973	61	14.0	882	64	11.4	0.1	0.2	0.3
2000	Open	1172	56	17.6	1038	61	13.8	945	65	11.4	0.2	0.2	0.3
2250	Open	1238	57	17.5	1096	62	13.7	995	65	11.4	0.2	0.2	0.3
2500	Open	1302	57	17.5	1151	62	13.6	1044	65	11.3	0.2	0.2	0.3

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - 2 Circuits - Six Cables - Spaced

25°C Earth Ambient

Condr Size	Shield Res	60 Rho Amps	60 Rho Interface Temp °C	60 Rho Flux w/ft²	90 Rho Amps	90 Rho Interface Temp °C	90 Rho Flux w/ft²	120 Rho Amps	120 Rho Interface Temp °C	120 Rho Flux w/ft²	delta Td for .0010 pf & Rho 60	90	120
						100% LF							
						80°C - Aluminum Conductor - Concentric Strand							
500	69	414	62	19.1	358	67	14.3	320	69	11.4	0.1	0.1	0.2
500	103	425	61	18.7	368	66	14.0	330	69	11.3	0.1	0.1	0.2
500	138	436	61	18.3	379	65	13.7	339	68	11.0	0.1	0.1	0.2
500	207	450	60	17.4	393	65	13.3	353	68	10.7	0.1	0.1	0.2
750	69	482	64	19.1	414	68	14.1	368	71	11.3	0.1	0.2	0.2
750	103	499	63	18.6	429	68	13.7	383	70	11.0	0.1	0.2	0.2
750	138	515	62	18.1	446	67	13.5	398	70	10.7	0.1	0.2	0.2
750	207	540	61	17.3	467	66	13.0	418	69	10.3	0.1	0.2	0.2
1000	69	533	66	19.2	455	70	14.0	404	72	11.1	0.1	0.2	0.2
1000	103	557	65	18.7	476	69	13.8	423	71	10.8	0.1	0.2	0.2
1000	138	579	64	18.1	497	68	13.4	442	71	10.6	0.1	0.2	0.2
1000	207	611	63	17.2	527	67	12.8	470	70	10.2	0.1	0.2	0.2
1000	Open	722	59	14.3	630	64	10.8	568	67	8.9	0.1	0.2	0.2
1250	69	571	67	19.3	486	71	14.0	430	73	11.0	0.1	0.2	0.2
1250	103	600	66	18.9	512	70	13.7	454	72	10.7	0.1	0.2	0.2
1250	138	629	65	18.3	537	69	13.3	477	72	10.5	0.1	0.2	0.2
1250	207	669	64	17.3	575	68	12.7	511	71	10.1	0.1	0.2	0.2
1250	Open	814	60	14.1	708	65	10.7	637	68	8.6	0.1	0.2	0.2
1500	69	603	68	19.3	511	71	13.9	452	73	10.9	0.1	0.2	0.2
1500	103	637	67	18.9	541	71	13.6	478	73	10.7	0.1	0.2	0.2
1500	138	669	67	18.2	571	70	13.3	505	72	10.3	0.1	0.2	0.2
1500	207	718	65	17.4	614	69	12.7	545	72	10.0	0.1	0.2	0.2
1500	Open	897	60	14.0	777	65	10.6	698	68	8.5	0.1	0.2	0.2
1750	69	628	69	19.3	532	72	13.8	469	74	10.8	0.1	0.2	0.3
1750	103	667	68	18.8	565	71	13.5	499	73	10.6	0.1	0.2	0.3
1750	138	703	67	18.2	598	71	13.2	529	73	10.3	0.1	0.2	0.3
1750	207	760	66	17.4	648	70	12.7	575	72	10.0	0.1	0.2	0.3
1750	Open	970	61	13.9	838	66	10.3	752	69	8.4	0.1	0.2	0.3
2000	Open	1032	62	13.7	895	66	10.3	800	69	8.2	0.2	0.2	0.3
2250	Open	1091	62	13.6	941	67	10.1	840	69	8.1	0.2	0.2	0.3
2500	Open	1145	62	13.5	985	67	10.1	880	70	8.0	0.2	0.2	0.3

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1156

69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - 2 Circuits - Six Cables - Spaced

25°C Earth Ambient

Condr Size	Shield Res	60 Rho Amps	60 Rho Interface Temp °C	60 Rho Flux w/ft²	90 Rho Amps	90 Rho Interface Temp °C	90 Rho Flux w/ft²	120 Rho Amps	120 Rho Interface Temp °C	120 Rho Flux w/ft²	delta Td for .0010 pf & Rho 60	90	120
						75% LF							
						65°C - Aluminum Conductor - Concentric Strand							
500	69	402	49	18.1	354	52	14.1	321	55	11.5	0.1	0.1	0.2
500	103	411	48	17.7	363	52	13.8	329	54	11.4	0.1	0.1	0.2
500	138	420	48	17.3	372	51	13.5	338	54	11.1	0.1	0.1	0.2
500	207	434	47	16.3	386	51	13.0	352	53	10.7	0.1	0.1	0.2
750	69	468	50	18.3	409	54	14.1	369	56	11.4	0.1	0.2	0.2
750	103	482	50	17.9	423	53	13.9	381	55	11.3	0.1	0.2	0.2
750	138	497	49	17.4	438	53	13.5	396	55	11.0	0.1	0.2	0.2
750	207	521	48	16.5	460	52	12.8	417	54	10.5	0.1	0.2	0.2
1000	69	519	52	18.7	451	55	14.1	405	57	11.4	0.1	0.2	0.2
1000	103	538	51	18.3	469	55	13.9	422	57	11.2	0.1	0.2	0.2
1000	138	559	51	17.7	489	54	13.5	440	56	10.9	0.1	0.2	0.2
1000	207	592	50	16.7	520	53	12.9	468	55	10.4	0.1	0.2	0.2
1000	Open	705	46	13.0	632	50	10.4	576	52	8.7	0.1	0.2	0.2
1250	69	557	53	19.0	482	56	14.3	432	58	11.4	0.1	0.2	0.2
1250	103	582	52	18.6	505	55	14.0	452	57	11.3	0.1	0.2	0.2
1250	138	608	52	18.0	528	55	13.6	475	57	11.0	0.1	0.2	0.2
1250	207	648	51	17.0	566	54	13.0	509	56	10.5	0.1	0.2	0.2
1250	Open	797	46	13.0	712	50	10.4	650	53	8.6	0.1	0.2	0.2
1500	69	589	54	19.2	507	57	14.3	453	58	11.4	0.1	0.2	0.2
1500	103	617	53	18.8	533	56	14.0	477	58	11.3	0.1	0.2	0.2
1500	138	648	52	18.2	562	56	13.6	503	57	10.9	0.1	0.2	0.2
1500	207	696	51	17.2	605	55	13.0	543	57	10.5	0.1	0.2	0.2
1500	Open	880	47	13.0	783	51	10.2	714	53	8.5	0.1	0.2	0.2
1750	69	615	54	19.3	528	57	14.3	470	59	11.3	0.1	0.2	0.3
1750	103	647	54	18.8	558	57	14.0	497	58	11.1	0.1	0.2	0.3
1750	138	681	53	18.3	589	56	13.6	526	58	10.9	0.1	0.2	0.3
1750	207	735	52	17.3	638	55	13.0	572	57	10.5	0.1	0.2	0.3
1750	Open	953	47	12.9	847	51	10.1	771	54	8.5	0.1	0.2	0.3
2000	Open	1020	48	12.8	903	51	10.0	819	54	8.2	0.2	0.2	0.3
2250	Open	1076	48	12.7	950	52	10.0	865	54	8.2	0.2	0.2	0.3
2500	Open	1131	48	12.7	997	52	9.9	906	54	8.1	0.2	0.2	0.3

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - 2 Circuits - Six Cables - Spaced

25°C Earth Ambient

Condr Size	Shield Res	60 Rho Amps	60 Rho Interface Temp °C	60 Rho Flux w/ft²	90 Rho Amps	90 Rho Interface Temp °C	90 Rho Flux w/ft²	120 Rho Amps	120 Rho Interface Temp °C	120 Rho Flux w/ft²	delta Td for .0010 pf & Rho 60	90	120
						100% LF							
						65°C - Aluminum Conductor - Concentric Strand							
500	69	355	52	14.1	307	55	10.6	274	57	8.4	0.1	0.1	0.2
500	103	363	52	13.8	314	55	10.4	281	57	8.3	0.1	0.1	0.2
500	138	373	51	13.5	323	55	10.1	289	57	8.1	0.1	0.1	0.2
500	207	387	51	13.0	336	54	9.8	302	56	7.8	0.1	0.1	0.2
750	69	410	54	14.1	351	57	10.3	313	58	8.2	0.1	0.2	0.2
750	103	423	53	13.9	364	56	10.2	324	58	8.1	0.1	0.2	0.2
750	138	438	53	13.5	377	56	9.9	337	58	8.0	0.1	0.2	0.2
750	207	461	52	12.8	398	55	9.6	356	57	7.7	0.1	0.2	0.2
1000	69	451	55	14.1	385	58	10.3	341	59	8.1	0.1	0.2	0.2
1000	103	469	55	13.9	401	57	10.2	356	59	8.0	0.1	0.2	0.2
1000	138	489	54	13.5	419	57	10.0	372	59	7.9	0.1	0.2	0.2
1000	207	518	53	12.8	446	56	9.5	397	58	7.6	0.1	0.2	0.2
1000	Open	630	50	10.3	550	53	7.9	495	55	6.4	0.1	0.2	0.2
1250	69	482	56	14.3	409	58	10.3	362	60	8.0	0.1	0.2	0.2
1250	103	504	55	14.0	429	58	10.1	380	60	7.9	0.1	0.2	0.2
1250	138	528	55	13.6	451	58	9.9	400	59	7.8	0.1	0.2	0.2
1250	207	566	54	13.0	484	57	9.5	430	59	7.5	0.1	0.2	0.2
1250	Open	710	50	10.3	618	54	7.8	555	56	6.2	0.1	0.2	0.2
1500	69	507	57	14.2	429	59	10.2	379	60	8.0	0.1	0.2	0.2
1500	103	533	56	14.0	451	59	10.0	399	60	7.8	0.1	0.2	0.2
1500	138	561	56	13.6	476	58	9.8	421	60	7.7	0.1	0.2	0.2
1500	207	603	55	13.0	516	58	9.4	458	59	7.5	0.1	0.2	0.2
1500	Open	781	51	10.2	677	54	7.6	608	56	6.1	0.1	0.2	0.2
1750	69	527	57	14.2	445	59	10.1	392	61	7.9	0.1	0.2	0.3
1750	103	556	57	14.0	470	59	10.0	415	60	7.8	0.1	0.2	0.3
1750	138	588	56	13.5	498	59	9.8	440	60	7.6	0.1	0.2	0.3
1750	207	637	55	13.0	543	58	9.5	479	60	7.4	0.1	0.2	0.3
1750	Open	845	51	10.1	730	55	7.6	654	57	6.1	0.1	0.2	0.3
2000	Open	901	52	10.0	778	55	7.5	696	57	6.0	0.2	0.2	0.3
2250	Open	948	52	9.9	817	55	7.4	730	57	5.9	0.2	0.2	0.3
2500	Open	994	52	9.9	855	56	7.3	763	57	5.8	0.2	0.2	0.3

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - 2 Circuits - Six Cables - Spaced

25°C Earth Ambient

Condr Size	Shield Res	60 Rho Amps	60 Rho Interface Temp °C	60 Rho Flux w/ft²	90 Rho Amps	90 Rho Interface Temp °C	90 Rho Flux w/ft²	120 Rho Amps	120 Rho Interface Temp °C	120 Rho Flux w/ft²	delta Td for .0010 pf & Rho 60	90	120
						75% LF							
						50°C - Aluminum Conductor - Concentric Strand							
500	69	320	40	11.5	281	42	9.0	254	44	7.3	0.1	0.1	0.2
500	103	326	40	11.4	287	42	8.8	259	44	7.3	0.1	0.1	0.2
500	138	333	39	11.1	294	42	8.7	267	43	7.1	0.1	0.1	0.2
500	207	346	39	10.6	307	41	8.3	278	43	6.8	0.1	0.1	0.2
750	69	369	41	11.7	323	43	8.9	290	45	7.2	0.1	0.2	0.2
750	103	379	41	11.5	332	43	8.8	299	44	7.2	0.1	0.2	0.2
750	138	391	40	11.1	343	43	8.6	309	44	7.1	0.1	0.2	0.2
750	207	411	40	10.6	362	42	8.2	327	44	6.7	0.1	0.2	0.2
1000	69	408	42	11.9	354	44	9.0	317	45	7.3	0.1	0.2	0.2
1000	103	421	42	11.7	366	44	8.9	328	45	7.1	0.1	0.2	0.2
1000	138	437	41	11.4	381	43	8.6	342	45	7.0	0.1	0.2	0.2
1000	207	464	41	10.8	406	43	8.2	366	44	6.8	0.1	0.2	0.2
1000	Open	571	38	8.1	511	40	6.5	467	42	5.4	0.1	0.2	0.2
1250	69	437	43	12.1	377	45	9.0	337	46	7.2	0.1	0.2	0.2
1250	103	452	42	11.9	391	44	9.0	350	45	7.2	0.1	0.2	0.2
1250	138	473	42	11.6	410	44	8.7	367	45	7.1	0.1	0.2	0.2
1250	207	506	41	11.0	441	44	8.4	396	45	6.7	0.1	0.2	0.2
1250	Open	645	38	8.1	575	41	6.5	525	42	5.4	0.1	0.2	0.2
1500	69	459	43	12.2	395	45	9.0	352	46	7.2	0.1	0.2	0.2
1500	103	478	43	12.1	413	45	9.0	368	46	7.2	0.1	0.2	0.2
1500	138	502	43	11.7	433	44	8.8	387	46	6.9	0.1	0.2	0.2
1500	207	541	42	11.0	469	44	8.3	421	45	6.7	0.1	0.2	0.2
1500	Open	711	39	8.1	632	41	6.4	576	43	5.3	0.1	0.2	0.2
1750	69	478	44	12.2	410	45	9.0	365	46	7.2	0.1	0.2	0.3
1750	103	500	43	12.0	430	45	8.9	382	46	7.0	0.1	0.2	0.3
1750	138	526	43	11.7	453	45	8.7	404	46	6.9	0.1	0.2	0.3
1750	207	570	42	11.1	493	44	8.4	442	45	6.7	0.1	0.2	0.3
1750	Open	770	39	8.0	683	41	6.4	620	43	5.2	0.1	0.2	0.3
2000	Open	823	39	8.0	728	42	6.3	660	43	5.1	0.2	0.2	0.3
2250	Open	867	39	8.0	765	42	6.2	694	43	5.1	0.2	0.2	0.3
2500	Open	910	40	7.9	802	42	6.2	726	43	5.1	0.2	0.2	0.3

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - 2 Circuits - Six Cables - Spaced

25°C Earth Ambient

Condr Size	Shield Res	60 Rho Amps	60 Rho Interface Temp °C	60 Rho Flux w/ft²	90 Rho Amps	90 Rho Interface Temp °C	90 Rho Flux w/ft²	120 Rho Amps	120 Rho Interface Temp °C	120 Rho Flux w/ft²	delta Td for .0010 pf & Rho 60	90	120
						100% LF							
						50°C - Aluminum Conductor - Concentric Strand							
500	69	282	42	9.0	243	44	6.7	217	45	5.3	0.1	0.1	0.2
500	103	287	42	8.8	248	44	6.7	221	45	5.3	0.1	0.1	0.2
500	138	295	42	8.7	255	44	6.6	228	45	5.1	0.1	0.1	0.2
500	207	307	41	8.3	267	43	6.3	239	45	5.0	0.1	0.1	0.2
750	69	323	43	8.9	277	45	6.5	246	46	5.2	0.1	0.2	0.2
750	103	332	43	8.9	285	45	6.5	253	46	5.1	0.1	0.2	0.2
750	138	343	43	8.6	295	45	6.4	263	46	5.1	0.1	0.2	0.2
750	207	362	42	8.2	313	44	6.2	279	45	4.8	0.1	0.2	0.2
1000	69	354	44	9.0	301	46	6.5	267	47	5.2	0.1	0.2	0.2
1000	103	366	44	8.9	312	45	6.5	276	46	5.0	0.1	0.2	0.2
1000	138	381	43	8.6	326	45	6.4	289	46	5.0	0.1	0.2	0.2
1000	207	406	43	8.2	348	45	6.1	310	46	4.8	0.1	0.2	0.2
1000	Open	510	40	6.5	447	43	5.0	400	44	4.1	0.1	0.2	0.2
1250	69	377	45	9.1	319	46	6.5	282	47	5.1	0.1	0.2	0.2
1250	103	391	44	9.0	332	46	6.5	294	47	5.1	0.1	0.2	0.2
1250	138	410	44	8.7	349	46	6.4	308	47	5.0	0.1	0.2	0.2
1250	207	440	44	8.3	376	45	6.1	334	46	4.8	0.1	0.2	0.2
1250	Open	573	41	6.4	499	43	4.8	448	44	3.9	0.1	0.2	0.2
1500	69	395	45	9.0	334	46	6.5	294	47	5.0	0.1	0.2	0.2
1500	103	412	45	8.9	348	46	6.4	307	47	5.0	0.1	0.2	0.2
1500	138	433	44	8.8	367	46	6.3	324	47	4.9	0.1	0.2	0.2
1500	207	469	44	8.3	399	46	6.0	353	47	4.8	0.1	0.2	0.2
1500	Open	631	41	6.4	547	43	4.8	490	45	3.9	0.1	0.2	0.2
1750	69	409	45	8.9	345	47	6.4	304	47	5.0	0.1	0.2	0.3
1750	103	429	45	8.9	362	47	6.4	319	47	5.0	0.1	0.2	0.3
1750	138	452	45	8.7	382	46	6.2	337	47	4.8	0.1	0.2	0.3
1750	207	492	44	8.3	417	46	5.9	369	47	4.7	0.1	0.2	0.3
1750	Open	682	41	6.3	589	44	4.7	527	45	3.7	0.1	0.2	0.3
2000	Open	724	42	6.2	627	44	4.7	560	45	3.7	0.2	0.2	0.3
2250	Open	761	42	6.1	658	44	4.6	588	45	3.6	0.2	0.2	0.3
2500	Open	798	42	6.1	688	44	4.6	614	45	3.7	0.2	0.2	0.3

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - 2 Circuits - Six Cables - Spaced

25°C Earth Ambient

Condr Size	Shield Res	60 Rho 75 LF	60 Rho 100 LF	90 Rho 75 LF	90 Rho 100 LF	120 Rho 75 LF	120 Rho 100 LF
		Total Watts/ft					
90°C - Aluminum Conductor - Concentric Strand							
500	69	107.9	84.7	84.3	63.6	69.6	50.9
500	103	105.7	83.4	83.4	62.9	68.6	50.7
500	138	104.1	82.6	82.3	62.4	68.3	50.1
500	207	101.0	80.7	80.7	61.5	67.1	49.7
750	69	115.8	89.6	89.6	66.1	73.0	52.5
750	103	113.7	88.1	88.1	65.8	72.3	52.3
750	138	111.7	87.0	87.3	65.0	71.3	52.1
750	207	108.6	85.4	85.4	64.2	70.6	51.5
1000	69	123.5	93.8	93.8	68.7	76.0	54.3
1000	103	121.0	93.0	92.7	68.1	75.6	54.1
1000	138	118.9	91.4	91.7	67.5	74.9	53.7
1000	207	115.7	89.8	90.1	66.6	73.5	53.2
1000	Open	102.6	82.2	82.6	62.5	69.0	50.8
1250	69	128.8	97.1	97.4	70.5	78.3	55.3
1250	103	126.6	96.0	96.0	70.1	77.5	55.1
1250	138	124.5	94.7	95.0	69.5	76.7	54.9
1250	207	120.9	92.4	93.4	68.5	75.8	54.3
1250	Open	106.6	84.5	85.0	64.0	70.9	51.9
1500	69	133.4	99.4	100.0	71.7	80.0	56.1
1500	103	131.1	98.4	99.0	71.4	79.5	55.9
1500	138	128.9	97.7	97.7	70.8	78.8	56.1
1500	207	125.6	95.4	96.4	70.0	77.5	55.3
1500	Open	110.3	86.9	87.4	65.3	72.7	52.7
1750	69	137.0	101.2	102.1	72.8	81.2	56.7
1750	103	134.7	100.6	101.1	72.3	80.9	56.6
1750	138	132.8	99.4	99.9	72.0	80.5	56.4
1750	207	129.3	97.6	98.3	71.2	79.2	56.1
1750	Open	113.2	88.7	89.3	66.4	73.5	53.4
2000	Open	115.7	89.6	90.8	67.5	74.7	54.1
2250	Open	118.2	91.2	92.8	68.4	76.6	54.7
2500	Open	120.3	93.2	94.1	69.1	77.6	55.1

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - 2 Circuits - Six Cables - Spaced

25°C Earth Ambient

Condr Size	Shield Res	60 Rho 75 LF	60 Rho 100 LF	90 Rho 75 LF	90 Rho 100 LF	120 Rho 75 LF	120 Rho 100 LF
		Total Watts/ft					
80°C - Aluminum Conductor - Concentric Strand							
500	69	92.0	72.0	72.0	53.9	59.1	43.1
500	103	90.7	71.1	71.1	53.4	58.4	42.9
500	138	88.7	70.3	70.0	53.2	58.0	42.6
500	207	86.4	68.7	68.7	52.4	57.3	42.3
750	69	98.7	76.4	76.1	56.4	62.0	44.6
750	103	97.2	75.3	75.3	55.7	61.6	44.4
750	138	95.5	74.1	74.3	55.6	60.9	44.3
750	207	92.8	72.7	72.7	54.4	60.2	43.7
1000	69	105.2	80.1	79.8	58.4	64.7	46.1
1000	103	103.2	79.2	78.9	57.9	64.1	45.8
1000	138	101.6	78.0	78.0	57.5	63.7	45.5
1000	207	98.7	76.1	76.6	56.7	62.4	45.1
1000	Open	86.8	69.3	69.7	52.8	58.3	43.0
1250	69	110.0	82.4	82.7	59.7	66.5	46.8
1250	103	108.0	81.5	81.8	59.4	66.0	46.7
1250	138	106.3	80.8	81.0	58.9	65.4	46.5
1250	207	103.3	78.9	79.6	58.3	64.3	46.1
1250	Open	90.1	71.5	72.1	54.2	60.1	43.9
1500	69	113.7	84.6	84.9	60.9	67.9	47.7
1500	103	111.9	83.8	84.1	60.5	67.4	47.3
1500	138	110.1	82.7	83.2	60.3	67.0	47.2
1500	207	107.2	81.3	81.7	59.5	66.0	46.9
1500	Open	93.2	73.6	73.9	55.3	61.5	44.6
1750	69	116.8	86.1	86.9	61.8	69.0	48.1
1750	103	115.0	85.5	86.0	61.4	68.8	48.0
1750	138	113.4	84.4	85.1	61.1	68.3	47.9
1750	207	110.8	83.3	83.9	60.6	67.3	47.8
1750	Open	95.9	75.2	75.6	56.2	62.2	45.3
2000	Open	97.9	75.9	76.8	57.2	63.7	45.7
2250	Open	100.0	77.7	78.4	57.9	64.7	46.2
2500	Open	101.9	78.9	79.7	58.4	65.6	46.7

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - 2 Circuits - Six Cables - Spaced

25°C Earth Ambient

		60 Rho		90 Rho		120 Rho	
		75 LF	100 LF	75 LF	100 LF	75 LF	100 LF
Condr Size	Shield Res	Total Watts/ft					
65°C - Aluminum Conductor - Concentric Strand							
500	69	67.9	53.0	52.7	39.7	43.4	31.6
500	103	66.9	52.2	52.2	39.1	42.9	31.4
500	138	65.6	51.7	51.5	38.8	42.5	31.1
500	207	63.7	50.6	50.4	38.2	41.9	30.9
750	69	73.0	56.1	55.8	41.1	45.4	32.7
750	103	71.7	55.3	55.3	41.0	44.9	32.5
750	138	70.3	54.7	54.7	40.5	44.7	32.4
750	207	68.5	53.6	53.4	40.0	43.9	32.1
1000	69	77.6	58.7	58.7	42.8	47.3	33.6
1000	103	76.3	58.0	58.0	42.5	47.0	33.5
1000	138	75.0	57.4	57.4	42.2	46.5	33.3
1000	207	73.0	56.0	56.4	41.5	45.7	33.0
1000	Open	63.1	50.4	50.7	38.5	42.2	31.2
1250	69	80.8	60.5	60.5	43.7	48.7	34.2
1250	103	79.8	59.9	60.2	43.5	48.2	34.2
1250	138	78.6	59.3	59.3	43.3	48.0	34.1
1250	207	76.4	58.3	58.3	42.7	47.2	33.7
1250	Open	65.5	52.0	52.3	39.5	43.6	31.9
1500	69	83.7	62.0	62.0	44.5	49.6	34.8
1500	103	82.4	61.6	61.6	44.1	49.3	34.6
1500	138	81.3	61.0	61.2	44.0	49.1	34.5
1500	207	79.3	59.6	60.0	43.7	48.4	34.5
1500	Open	67.8	53.4	53.7	40.2	44.7	32.5
1750	69	86.0	63.2	63.4	45.1	50.3	35.1
1750	103	84.8	62.7	63.1	44.8	50.1	35.0
1750	138	83.5	62.3	62.5	44.7	49.9	35.0
1750	207	81.4	61.2	61.4	44.5	49.4	34.7
1750	Open	69.5	54.7	55.0	40.9	45.6	32.9
2000	Open	71.3	55.7	55.9	41.6	46.0	33.3
2250	Open	72.7	56.5	56.7	42.0	47.1	33.6
2500	Open	74.1	57.3	57.6	42.5	47.6	33.9

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - 2 Circuits - Six Cables - Spaced

25°C Earth Ambient

Condr Size	Shield Res	60 Rho 75 LF	60 Rho 100 LF	90 Rho 75 LF	90 Rho 100 LF	120 Rho 75 LF	120 Rho 100 LF
		Total Watts/ft					
50°C - Aluminum Conductor - Concentric Strand							
500	69	43.1	33.5	33.3	24.9	27.2	19.9
500	103	42.6	33.1	33.1	24.7	27.0	19.7
500	138	41.8	32.8	32.6	24.5	26.9	19.7
500	207	40.7	32.1	32.1	24.3	26.3	19.5
750	69	46.0	35.3	35.3	26.0	28.5	20.6
750	103	45.5	35.0	35.0	25.8	28.4	20.4
750	138	44.8	34.5	34.5	25.6	28.0	20.4
750	207	43.5	33.8	33.8	25.3	27.6	20.2
1000	69	49.1	37.0	37.0	26.8	29.7	21.2
1000	103	48.5	36.7	36.7	26.8	29.5	21.0
1000	138	47.7	36.3	36.3	26.6	29.3	21.0
1000	207	46.4	35.6	35.6	26.2	29.0	20.8
1000	Open	39.5	31.5	31.7	24.3	26.5	19.5
1250	69	51.3	38.2	38.2	27.4	30.6	21.5
1250	103	50.4	37.8	37.8	27.3	30.3	21.5
1250	138	49.9	37.6	37.6	27.3	30.1	21.3
1250	207	48.6	36.8	37.0	26.9	29.8	21.3
1250	Open	41.0	32.4	32.6	24.6	27.2	19.9
1500	69	52.7	39.1	39.1	28.0	31.1	21.7
1500	103	52.1	38.8	39.0	27.7	31.0	21.6
1500	138	51.6	38.4	38.4	27.7	30.8	21.6
1500	207	50.4	37.9	37.9	27.5	30.6	21.6
1500	Open	42.3	33.4	33.5	25.1	27.8	20.2
1750	69	54.1	39.7	39.9	28.3	31.7	22.0
1750	103	53.7	39.6	39.7	28.2	31.4	22.0
1750	138	53.0	39.2	39.4	28.0	31.3	21.9
1750	207	51.8	38.6	38.8	27.8	31.2	21.8
1750	Open	43.5	34.2	34.3	25.6	28.3	20.5
2000	Open	44.6	34.5	34.9	26.0	28.7	20.8
2250	Open	45.5	35.1	35.4	26.3	29.2	21.0
2500	Open	46.2	35.6	36.0	26.5	29.5	21.2

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - 2 Circuits - Six Cables - Spaced

25°C Earth Ambient

Condr Size	Sheath Res	OD	Wd	Rac	Qs	Ri	Rj	Re @ 90 Rho & loss 75%	Re @ 90 Rho & loss factor 100%
			90°C - Aluminum Conductor - Concentric Strand						
500	69	2.679	0.03	44.70	1.628	1.95	0.27	2.96	4.45
500	103	2.679	0.03	44.70	1.512	1.95	0.27	2.96	4.45
500	138	2.679	0.03	44.70	1.413	1.95	0.27	2.96	4.45
500	207	2.679	0.03	44.70	1.292	1.95	0.27	2.96	4.45
750	69	2.918	0.03	30.02	1.903	1.72	0.32	2.92	4.41
750	103	2.918	0.03	30.02	1.730	1.72	0.32	2.92	4.41
750	138	2.918	0.03	30.02	1.587	1.72	0.32	2.92	4.41
750	207	2.918	0.03	30.02	1.413	1.72	0.32	2.92	4.41
1000	69	3.107	0.03	22.74	2.154	1.56	0.30	2.89	4.38
1000	103	3.107	0.03	22.74	1.928	1.56	0.30	2.89	4.38
1000	138	3.107	0.03	22.74	1.745	1.56	0.30	2.89	4.38
1000	207	3.107	0.03	22.74	1.523	1.56	0.30	2.89	4.38
1000	Open	3.107	0.03	22.74	1.003	1.56	0.30	2.89	4.38
1250	69	3.240	0.04	18.39	2.394	1.45	0.28	2.86	4.36
1250	103	3.240	0.04	18.39	2.115	1.45	0.28	2.86	4.36
1250	138	3.240	0.04	18.39	1.888	1.45	0.28	2.87	4.36
1250	207	3.240	0.04	18.39	1.625	1.45	0.28	2.86	4.36
1250	Open	3.240	0.04	18.39	1.004	1.45	0.28	2.87	4.36
1500	69	3.360	0.04	15.55	2.610	1.36	0.27	2.85	4.35
1500	103	3.360	0.04	15.55	2.282	1.36	0.27	2.85	4.35
1500	138	3.360	0.04	15.55	2.019	1.36	0.27	2.85	4.35
1500	207	3.360	0.04	15.55	1.717	1.36	0.27	2.85	4.35
1500	Open	3.360	0.04	15.55	1.005	1.36	0.27	2.85	4.35
1750	69	3.470	0.04	13.54	2.808	1.29	0.26	2.83	4.33
1750	103	3.470	0.04	13.54	2.434	1.29	0.26	2.83	4.33
1750	138	3.470	0.04	13.54	2.144	1.29	0.26	2.83	4.33
1750	207	3.470	0.04	13.54	1.795	1.29	0.26	2.84	4.33
1750	Open	3.470	0.04	13.54	1.006	1.29	0.26	2.84	4.33
2000	Open	3.573	0.04	12.06	1.008	1.22	0.26	2.83	4.32
2250	Open	3.668	0.04	11.02	1.009	1.17	0.25	2.81	4.30
2500	Open	3.759	0.04	10.12	1.010	1.13	0.24	2.80	4.29

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - 2 Circuits - Six Cables - Spaced

25°C Earth Ambient

Condr Size	Sheath Res	OD	Wd	Rac	Qs	Ri	Rj	Re @ 90 loss 75%	Rho & factor 100%
			80°C - Aluminum Conductor - Concentric Strand						
500	69	2.679	0.03	44.70	1.628	1.95	0.27	2.96	4.45
500	103	2.679	0.03	44.70	1.512	1.95	0.27	2.96	4.45
500	138	2.679	0.03	44.70	1.413	1.95	0.27	2.96	4.45
500	207	2.679	0.03	44.70	1.292	1.95	0.27	2.96	4.45
750	69	2.918	0.03	30.02	1.903	1.72	0.32	2.92	4.41
750	103	2.918	0.03	30.02	1.730	1.72	0.32	2.92	4.41
750	138	2.918	0.03	30.02	1.587	1.72	0.32	2.92	4.41
750	207	2.918	0.03	30.02	1.413	1.72	0.32	2.92	4.41
1000	69	3.107	0.03	22.74	2.154	1.56	0.30	2.89	4.38
1000	103	3.107	0.03	22.74	1.928	1.56	0.30	2.89	4.38
1000	138	3.107	0.03	22.74	1.745	1.56	0.30	2.89	4.38
1000	207	3.107	0.03	22.74	1.523	1.56	0.30	2.89	4.38
1000	Open	3.107	0.03	22.74	1.003	1.56	0.30	2.89	4.38
1250	69	3.240	0.04	18.39	2.394	1.45	0.28	2.86	4.36
1250	103	3.240	0.04	18.39	2.115	1.45	0.28	2.86	4.36
1250	138	3.240	0.04	18.39	1.888	1.45	0.28	2.87	4.36
1250	207	3.240	0.04	18.39	1.625	1.45	0.28	2.86	4.36
1250	Open	3.240	0.04	18.39	1.004	1.45	0.28	2.87	4.36
1500	69	3.360	0.04	15.55	2.610	1.36	0.27	2.85	4.35
1500	103	3.360	0.04	15.55	2.282	1.36	0.27	2.85	4.35
1500	138	3.360	0.04	15.55	2.019	1.36	0.27	2.85	4.35
1500	207	3.360	0.04	15.55	1.717	1.36	0.27	2.85	4.35
1500	Open	3.360	0.04	15.55	1.005	1.36	0.27	2.85	4.35
1750	69	3.470	0.04	13.54	2.808	1.29	0.26	2.83	4.33
1750	103	3.470	0.04	13.54	2.434	1.29	0.26	2.83	4.33
1750	138	3.470	0.04	13.54	2.144	1.29	0.26	2.83	4.33
1750	207	3.470	0.04	13.54	1.795	1.29	0.26	2.84	4.33
1750	Open	3.470	0.04	13.54	1.006	1.29	0.26	2.84	4.33
2000	Open	3.573	0.04	12.06	1.008	1.22	0.26	2.83	4.32
2250	Open	3.668	0.04	11.02	1.009	1.17	0.25	2.81	4.30
2500	Open	3.759	0.04	10.12	1.010	1.13	0.24	2.80	4.29

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - 2 Circuits - Six Cables - Spaced

25°C Earth Ambient

Condr Size	Sheath Res	OD	Wd	Rac	Qs	Ri	Rj	Re @ 90 loss 75%	Rho & factor 100%
			65°C - Aluminum Conductor - Concentric Strand						
500	69	2.679	0.03	44.70	1.628	1.95	0.27	2.96	4.45
500	103	2.679	0.03	44.70	1.512	1.95	0.27	2.96	4.45
500	138	2.679	0.03	44.70	1.413	1.95	0.27	2.96	4.45
500	207	2.679	0.03	44.70	1.292	1.95	0.27	2.96	4.45
750	69	2.918	0.03	30.02	1.903	1.72	0.32	2.92	4.41
750	103	2.918	0.03	30.02	1.730	1.72	0.32	2.92	4.41
750	138	2.918	0.03	30.02	1.587	1.72	0.32	2.92	4.41
750	207	2.918	0.03	30.02	1.413	1.72	0.32	2.92	4.41
1000	69	3.107	0.03	22.74	2.154	1.56	0.30	2.89	4.38
1000	103	3.107	0.03	22.74	1.928	1.56	0.30	2.89	4.38
1000	138	3.107	0.03	22.74	1.745	1.56	0.30	2.89	4.38
1000	207	3.107	0.03	22.74	1.523	1.56	0.30	2.89	4.38
1000	Open	3.107	0.03	22.74	1.003	1.56	0.30	2.89	4.38
1250	69	3.240	0.04	18.39	2.394	1.45	0.28	2.86	4.36
1250	103	3.240	0.04	18.39	2.115	1.45	0.28	2.86	4.36
1250	138	3.240	0.04	18.39	1.888	1.45	0.28	2.87	4.36
1250	207	3.240	0.04	18.39	1.625	1.45	0.28	2.86	4.36
1250	Open	3.240	0.04	18.39	1.004	1.45	0.28	2.87	4.36
1500	69	3.360	0.04	15.55	2.610	1.36	0.27	2.85	4.35
1500	103	3.360	0.04	15.55	2.282	1.36	0.27	2.85	4.35
1500	138	3.360	0.04	15.55	2.019	1.36	0.27	2.85	4.35
1500	207	3.360	0.04	15.55	1.717	1.36	0.27	2.85	4.35
1500	Open	3.360	0.04	15.55	1.005	1.36	0.27	2.85	4.35
1750	69	3.470	0.04	13.54	2.808	1.29	0.26	2.83	4.33
1750	103	3.470	0.04	13.54	2.434	1.29	0.26	2.83	4.33
1750	138	3.470	0.04	13.54	2.144	1.29	0.26	2.83	4.33
1750	207	3.470	0.04	13.54	1.795	1.29	0.26	2.84	4.33
1750	Open	3.470	0.04	13.54	1.006	1.29	0.26	2.84	4.33
2000	Open	3.573	0.04	12.06	1.008	1.22	0.26	2.83	4.32
2250	Open	3.668	0.04	11.02	1.009	1.17	0.25	2.81	4.30
2500	Open	3.759	0.04	10.12	1.010	1.13	0.24	2.80	4.29

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

Direct Buried - 2 Circuits - Six Cables - Spaced

25°C Earth Ambient

Condr Size	Sheath Res	OD	Wd	Rac	Qs	Ri	Rj	Re @ 90 Rho & loss factor 75%	100%
50°C - Aluminum Conductor - Concentric Strand									
500	69	2.679	0.03	44.70	1.628	1.95	0.27	2.96	4.45
500	103	2.679	0.03	44.70	1.512	1.95	0.27	2.96	4.45
500	138	2.679	0.03	44.70	1.413	1.95	0.27	2.96	4.45
500	207	2.679	0.03	44.70	1.292	1.95	0.27	2.96	4.45
750	69	2.918	0.03	30.02	1.903	1.72	0.32	2.92	4.41
750	103	2.918	0.03	30.02	1.730	1.72	0.32	2.92	4.41
750	138	2.918	0.03	30.02	1.587	1.72	0.32	2.92	4.41
750	207	2.918	0.03	30.02	1.413	1.72	0.32	2.92	4.41
1000	69	3.107	0.03	22.74	2.154	1.56	0.30	2.89	4.38
1000	103	3.107	0.03	22.74	1.928	1.56	0.30	2.89	4.38
1000	138	3.107	0.03	22.74	1.745	1.56	0.30	2.89	4.38
1000	207	3.107	0.03	22.74	1.523	1.56	0.30	2.89	4.38
1000	Open	3.107	0.03	22.74	1.003	1.56	0.30	2.89	4.38
1250	69	3.240	0.04	18.39	2.394	1.45	0.28	2.86	4.36
1250	103	3.240	0.04	18.39	2.115	1.45	0.28	2.86	4.36
1250	138	3.240	0.04	18.39	1.888	1.45	0.28	2.87	4.36
1250	207	3.240	0.04	18.39	1.625	1.45	0.28	2.86	4.36
1250	Open	3.240	0.04	18.39	1.004	1.45	0.28	2.87	4.36
1500	69	3.360	0.04	15.55	2.610	1.36	0.27	2.85	4.35
1500	103	3.360	0.04	15.55	2.282	1.36	0.27	2.85	4.35
1500	138	3.360	0.04	15.55	2.019	1.36	0.27	2.85	4.35
1500	207	3.360	0.04	15.55	1.717	1.36	0.27	2.85	4.35
1500	Open	3.360	0.04	15.55	1.005	1.36	0.27	2.85	4.35
1750	69	3.470	0.04	13.54	2.808	1.29	0.26	2.83	4.33
1750	103	3.470	0.04	13.54	2.434	1.29	0.26	2.83	4.33
1750	138	3.470	0.04	13.54	2.144	1.29	0.26	2.83	4.33
1750	207	3.470	0.04	13.54	1.795	1.29	0.26	2.84	4.33
1750	Open	3.470	0.04	13.54	1.006	1.29	0.26	2.84	4.33
2000	Open	3.573	0.04	12.06	1.008	1.22	0.26	2.83	4.32
2250	Open	3.668	0.04	11.02	1.009	1.17	0.25	2.81	4.30
2500	Open	3.759	0.04	10.12	1.010	1.13	0.24	2.80	4.29

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

in Unventilated Riser - Triplexed

40°C Air Ambient

Condr Size	Shield Res	No Sun 0 Ft/s	No Sun 2 Ft/s	Full Sun 0 Ft/s	Full Sun 2 Ft/s	delta Td for .0010 pf No Sun 0 Ft/s	delta Td for .0010 pf No Sun 2 Ft/s
		90°C - Aluminum Conductor - Concentric Strand					
500	69	381	400	325	346	0.2	0.1
500	103	387	407	330	349	0.2	0.1
500	138	391	410	332	352	0.2	0.1
500	207	394	414	334	354	0.2	0.1
750	69	463	488	396	427	0.2	0.1
750	103	474	499	405	433	0.2	0.1
750	138	480	505	410	437	0.2	0.1
750	207	487	512	416	441	0.2	0.1
1000	69	529	559	452	494	0.2	0.2
1000	103	545	575	466	505	0.2	0.2
1000	138	554	585	473	511	0.2	0.2
1000	207	564	595	482	517	0.2	0.2
1250	69	582	615	498	544	0.2	0.2
1250	103	603	637	515	562	0.2	0.2
1250	138	615	649	525	573	0.2	0.2
1250	207	628	663	536	581	0.2	0.2
1500	69	657	688	562	603	0.2	0.2
1500	103	683	714	583	626	0.2	0.2
1500	138	699	730	597	638	0.2	0.2
1500	207	715	747	611	649	0.2	0.2
1750	69	696	729	595	639	0.2	0.2
1750	103	727	760	621	667	0.2	0.2
1750	138	745	779	636	683	0.2	0.2
1750	207	764	800	653	701	0.2	0.2
2000	69	729	764	624	670	0.2	0.2
2000	103	763	800	653	701	0.2	0.2
2000	138	784	821	670	720	0.2	0.2
2000	207	807	845	689	741	0.2	0.2
2250	69	756	792	646	695	0.2	0.2
2250	103	793	831	678	729	0.2	0.2
2250	138	816	855	697	750	0.2	0.2
2250	207	841	881	719	772	0.2	0.2
2500	69	780	818	667	717	0.2	0.2
2500	103	820	860	701	754	0.2	0.2
2500	138	845	886	723	777	0.2	0.2
2500	207	872	914	746	802	0.2	0.2

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69 kV Shielded Single Conductor Unfilled X L P E Power Cable

in Unventilated Riser - Triplexed

40°C Air Ambient

Condr Size	Shield Res	No Sun 0 Ft/s	No Sun 2 Ft/s	Full Sun 0 Ft/s	Full Sun 2 Ft/s
		Total Watts/ft			
90°C - Aluminum Conductor - Concentric Strand					
500	69	23.5	25.9	17.1	17.9
500	103	23.2	25.7	15.8	17.7
500	138	23.1	25.4	15.7	17.7
500	207	22.9	25.3	15.6	17.6
750	69	25.5	28.3	18.6	19.3
750	103	25.1	27.9	18.3	18.9
750	138	24.9	27.5	18.2	18.8
750	207	24.7	27.3	18.0	18.6
1000	69	27.3	30.5	19.9	20.4
1000	103	26.9	30.0	19.7	20.2
1000	138	26.6	29.7	19.4	20.0
1000	207	26.4	29.4	19.3	19.8
1250	69	28.8	32.2	21.1	25.2
1250	103	28.4	31.7	20.7	24.7
1250	138	28.1	31.3	20.5	20.8
1250	207	27.8	31.0	20.3	20.6
1500	69	32.9	36.1	24.1	27.7
1500	103	32.3	35.3	23.6	27.2
1500	138	32.0	34.9	23.4	22.4
1500	207	31.6	34.5	23.1	22.1
1750	69	34.2	37.5	25.0	28.8
1750	103	33.7	36.8	24.6	28.4
1750	138	33.3	36.4	24.3	28.0
1750	207	32.8	36.0	24.0	22.8
2000	69	35.4	38.9	25.9	29.9
2000	103	34.8	38.3	25.5	29.4
2000	138	34.5	37.8	25.2	29.1
2000	207	34.1	37.4	24.9	28.8
2250	69	36.5	40.1	26.6	30.8
2250	103	35.9	39.5	26.2	30.3
2250	138	35.6	39.1	25.9	30.0
2250	207	35.1	38.6	25.7	29.6
2500	69	37.5	41.3	27.4	31.7
2500	103	36.9	40.6	26.9	31.2
2500	138	36.6	40.2	26.8	30.9
2500	207	36.1	39.7	26.4	30.6

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1170

69 kV Shielded Single Conductor Unfilled X L P E Power Cable

in Unventilated Riser - Triplexed

40°C Air Ambient

Condr Size	Sheath Res	OD	Duct ID	Wd	Rac	Qs	Qe	Ri	Rj	Rsd	Rd	Re No Sun 0 fps	Re Sun 2 fps
						90°C - Aluminum Conductor - Concentric Strand							
500	69	2.679	7.98	0.03	44.88	1.166	1.199	1.95	.27	2.57	.00	1.99	1.40
500	103	2.679	7.98	0.03	44.88	1.115	1.147	1.95	.27	2.58	.00	1.99	1.40
500	138	2.679	7.98	0.03	44.88	1.086	1.119	1.95	.27	2.58	.00	1.99	1.40
500	207	2.679	7.98	0.03	44.88	1.058	1.091	1.95	.27	2.59	.00	1.99	1.40
750	69	2.918	7.98	0.03	30.27	1.250	1.305	1.72	.32	2.40	.00	1.96	1.40
750	103	2.918	7.98	0.03	30.27	1.172	1.228	1.72	.32	2.41	.00	1.97	1.40
750	138	2.918	7.98	0.03	30.27	1.130	1.186	1.72	.32	2.42	.00	1.97	1.40
750	207	2.918	7.98	0.03	30.27	1.088	1.143	1.72	.32	2.42	.00	1.97	1.40
1000	69	3.107	7.98	0.03	23.06	1.326	1.406	1.56	.30	2.28	.00	1.94	1.40
1000	103	3.107	7.98	0.03	23.06	1.225	1.305	1.56	.30	2.29	.00	1.94	1.40
1000	138	3.107	7.98	0.03	23.06	1.170	1.250	1.56	.30	2.30	.00	1.95	1.40
1000	207	3.107	7.98	0.03	23.06	1.114	1.194	1.56	.30	2.30	.00	1.95	1.40
1250	69	3.240	7.98	0.04	18.84	1.395	1.499	1.45	.28	2.21	.00	1.92	1.40
1250	103	3.240	7.98	0.04	18.84	1.273	1.377	1.45	.28	2.22	.00	1.93	1.40
1250	138	3.240	7.98	0.04	18.84	1.206	1.310	1.45	.28	2.22	.00	1.93	1.40
1250	207	3.240	7.98	0.04	18.84	1.138	1.243	1.45	.28	2.23	.00	1.94	1.40
1500	69	3.360	10.02	0.04	16.09	1.460	1.574	1.36	.27	2.02	.00	1.56	1.19
1500	103	3.360	10.02	0.04	16.09	1.317	1.431	1.36	.27	2.03	.00	1.57	1.19
1500	138	3.360	10.02	0.04	16.09	1.239	1.354	1.36	.27	2.04	.00	1.57	1.19
1500	207	3.360	10.02	0.04	16.09	1.161	1.275	1.36	.27	2.04	.00	1.57	1.19
1750	69	3.470	10.02	0.04	14.18	1.517	1.654	1.29	.26	1.97	.00	1.56	1.18
1750	103	3.470	10.02	0.04	14.18	1.357	1.493	1.29	.26	1.98	.00	1.56	1.18
1750	138	3.470	10.02	0.04	14.18	1.270	1.406	1.29	.26	1.98	.00	1.56	1.19
1750	207	3.470	10.02	0.04	14.18	1.181	1.318	1.29	.26	1.99	.00	1.57	1.19
2000	69	3.573	10.02	0.04	12.81	1.569	1.728	1.22	.26	1.92	.00	1.55	1.18
2000	103	3.573	10.02	0.04	12.81	1.393	1.551	1.22	.26	1.93	.00	1.55	1.18
2000	138	3.573	10.02	0.04	12.81	1.296	1.455	1.22	.26	1.94	.00	1.55	1.18
2000	207	3.573	10.02	0.04	12.81	1.199	1.358	1.22	.26	1.94	.00	1.56	1.18
2250	69	3.668	10.02	0.04	11.86	1.612	1.790	1.17	.25	1.88	.00	1.54	1.18
2250	103	3.668	10.02	0.04	11.86	1.422	1.600	1.17	.25	1.89	.00	1.54	1.18
2250	138	3.668	10.02	0.04	11.86	1.318	1.497	1.17	.25	1.90	.00	1.55	1.18
2250	207	3.668	10.02	0.04	11.86	1.214	1.392	1.17	.25	1.90	.00	1.55	1.18
2500	69	3.759	10.02	0.04	11.06	1.653	1.851	1.13	.24	1.84	.00	1.53	1.18
2500	103	3.759	10.02	0.04	11.06	1.450	1.649	1.13	.24	1.85	.00	1.54	1.18
2500	138	3.759	10.02	0.04	11.06	1.340	1.538	1.13	.24	1.86	.00	1.54	1.18
2500	207	3.759	10.02	0.04	11.06	1.228	1.427	1.13	.24	1.87	.00	1.54	1.18

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