69 kV Shielded Single Conductor Filled X L P E or E P R 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 .0150 pf & Rho 60	90	120
				90°C - Copper Conductor - Concentric Strand						
500	69	520	484	486	441	456	407	2.6	3.1	3.6
500	103	541	504	506	459	476	424	2.6	3.1	3.6
500	138	558	519	522	474	492	439	2.7	3.2	3.7
500	207	580	540	543	495	512	458	2.7	3.2	3.7
750	69	601	557	558	504	522	462	2.8	3.4	4.0
750	103	633	587	588	532	551	489	2.8	3.4	4.0
750	138	660	611	614	555	576	510	2.8	3.4	4.1
750	207	695	644	648	586	608	540	2.9	3.5	4.1
750	Open	805	752	756	690	713	640	2.9	3.5	4.1
1000	69	663	611	612	549	570	502	2.9	3.6	4.3
1000	103	704	650	651	585	607	536	3.0	3.6	4.3
1000	138	739	681	685	615	639	564	3.0	3.6	4.3
1000	207	786	725	729	656	682	603	3.0	3.7	4.4
1000	Open	941	876	880	800	828	740	3.1	3.7	4.4
1250	69	708	650	652	583	606	532	3.1	3.8	4.5
1250	103	758	697	698	626	649	571	3.1	3.8	4.5
1250	138	800	735	739	661	688	604	3.1	3.8	4.5
1250	207	857	788	793	711	739	651	3.2	3.9	4.6
1250	Open	1055	979	984	892	924	822	3.2	3.9	4.6
1500	Open	1153	1068	1072	970	1005	892	3.4	4.1	4.9
1750	Open	1238	1144	1149	1036	1075	952	3.5	4.3	5.1
2000	Open	1314	1212	1217	1096	1137	1005	3.6	4.4	5.3
2250	Open	1376	1267	1272	1143	1186	1047	3.7	4.6	5.4
2500	Open	1435	1320	1325	1189	1234	1087	3.8	4.7	5.6

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1318

69 kV Shielded Single Conductor Filled X L P E or E P R 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 for 90°C - Copper Conductor - Concentric Strand							
500	69	42.2	36.8	37.1	30.8	32.8	26.4
500	103	41.4	36.1	36.4	30.2	32.4	26.0
500	138	40.5	35.3	35.7	29.7	31.9	25.7
500	207	39.3	34.3	34.7	29.1	31.0	25.1
750	69	45.5	39.3	39.4	32.5	34.7	27.6
750	103	44.6	38.6	38.7	32.0	34.2	27.3
750	138	43.8	37.8	38.1	31.5	33.8	26.8
750	207	42.4	36.7	37.1	30.7	32.9	26.3
750	Open	38.0	33.4	33.7	28.4	30.2	24.6
1000	69	48.4	41.4	41.5	33.8	36.3	28.6
1000	103	47.5	40.8	40.9	33.4	35.8	28.3
1000	138	46.6	39.9	40.3	32.9	35.3	27.9
1000	207	45.2	38.7	39.2	32.1	34.5	27.4
1000	Open	40.0	34.9	35.2	29.4	31.4	25.5
1250	69	50.3	42.7	43.0	34.8	37.4	29.3
1250	103	49.6	42.2	42.3	34.5	36.9	29.0
1250	138	48.7	41.4	41.8	33.9	36.5	28.6
1250	207	47.2	40.2	40.7	33.1	35.6	28.1
1250	Open	41.6	36.1	36.4	30.3	32.4	26.0
1500	Open	42.9	37.2	37.4	31.0	33.1	26.6
1750	Open	44.1	38.0	38.3	31.6	33.8	27.0
2000	Open	45.2	38.8	39.1	32.2	34.4	27.4
2250	Open	46.1	39.5	39.8	32.6	34.9	27.8
2500	Open	47.0	40.1	40.4	33.1	35.4	28.1

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

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

25°C Earth Ambient

Size	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	0.51	27.39	1.899	1.95	0.27	1.48	0.24	2.03	3.16
500	103	2.679	5.05	0.51	27.39	1.709	1.95	0.27	1.49	0.24	2.03	3.30
500	138	2.679	5.05	0.51	27.39	1.536	1.95	0.27	1.49	0.24	2.11	3.30
500	207	2.679	5.05	0.51	27.39	1.380	1.95	0.27	1.50	0.24	2.11	3.30
750	69	2.918	5.05	0.57	18.60	2.267	1.72	0.32	1.35	0.24	2.03	3.16
750	103	2.918	5.05	0.57	18.60	1.992	1.72	0.32	1.35	0.24	2.03	3.30
750	138	2.918	5.05	0.57	18.60	1.787	1.72	0.32	1.36	0.24	2.03	3.30
750	207	2.918	5.05	0.57	18.60	1.528	1.72	0.32	1.37	0.24	2.11	3.30
750	Open	2.918	5.05	0.57	18.60	1.002	1.72	0.32	1.39	0.24	2.11	3.30
1000	69	3.107	5.05	0.63	14.30	2.589	1.56	0.30	1.26	0.24	2.03	3.16
1000	103	3.107	5.05	0.63	14.30	2.237	1.56	0.30	1.27	0.24	2.03	3.16
1000	138	3.107	5.05	0.63	14.30	1.978	1.56	0.30	1.27	0.24	2.03	3.30
1000	207	3.107	5.05	0.63	14.30	1.656	1.56	0.30	1.28	0.24	2.11	3.30
1000	Open	3.107	5.05	0.63	14.30	1.003	1.56	0.30	1.31	0.24	2.11	3.30
1250	69	3.240	5.05	0.68	11.79	2.869	1.45	0.28	1.20	0.24	2.03	3.16
1250	103	3.240	5.05	0.68	11.79	2.447	1.45	0.28	1.21	0.24	2.03	3.16
1250	138	3.240	5.05	0.68	11.79	2.142	1.45	0.28	1.22	0.24	2.03	3.30
1250	207	3.240	5.05	0.68	11.79	1.764	1.45	0.28	1.22	0.24	2.11	3.30
1250	Open	3.240	5.05	0.68	11.79	1.005	1.45	0.28	1.26	0.24	2.11	3.30
1500	Open	3.360	5.05	0.72	10.16	1.006	1.36	0.27	1.21	0.24	2.11	3.30
1750	Open	3.470	5.05	0.76	9.03	1.007	1.29	0.26	1.17	0.24	2.11	3.30
2000	Open	3.573	5.05	0.80	8.18	1.008	1.22	0.26	1.13	0.24	2.11	3.30
2250	Open	3.668	5.05	0.83	7.60	1.010	1.17	0.25	1.10	0.24	2.11	3.30
2500	Open	3.759	5.05	0.86	7.10	1.011	1.13	0.24	1.08	0.24	2.11	3.30

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1320

69 kV Shielded Single Conductor Filled X L P E or E P R 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 .0150 pf & Rho 60	90	120
		90°C - Copper Conductor - Concentric Strand								
500	69	473	422	423	367	384	328	3.6	4.7	5.8
500	103	492	440	441	384	401	343	3.6	4.7	5.8
500	138	507	455	455	397	415	355	3.6	4.7	5.8
500	207	527	473	474	414	432	371	3.6	4.7	5.8
750	69	546	484	484	418	438	371	4.0	5.2	6.4
750	103	575	511	511	442	463	393	4.0	5.2	6.5
750	138	599	533	533	462	483	411	4.0	5.2	6.5
750	207	630	562	562	488	510	435	4.0	5.2	6.5
750	Open	721	649	649	568	592	509	4.0	5.2	6.5
1000	69	601	529	529	454	476	402	4.2	5.6	7.0
1000	103	639	564	564	485	508	430	4.2	5.6	7.0
1000	138	669	592	592	510	534	453	4.2	5.6	7.0
1000	207	710	630	630	544	569	484	4.2	5.6	7.0
1000	Open	838	751	750	654	682	584	4.3	5.6	7.0
1250	69	642	563	563	481	505	425	4.5	5.9	7.4
1250	103	687	604	604	517	543	457	4.5	5.9	7.4
1250	138	724	638	637	547	574	484	4.5	5.9	7.4
1250	207	773	684	683	588	616	521	4.5	5.9	7.4
1250	Open	935	835	833	725	756	645	4.5	6.0	7.4
1500	Open	1017	907	904	784	818	697	4.7	6.3	7.8
1750	Open	1088	968	964	836	870	740	4.9	6.5	8.2
2000	Open	1151	1022	1018	880	916	778	5.1	6.8	8.5
2250	Open	1202	1064	1060	914	953	807	5.2	7.0	8.9
2500	Open	1250	1105	1100	947	987	835	5.4	7.3	9.2

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69 kV Shielded Single Conductor Filled X L P E or E P R 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 for 90°C - Copper Conductor - Concentric Strand							
500	69	66.9	53.9	54.1	41.5	45.2	33.8
500	103	65.5	53.0	53.2	41.1	44.5	33.4
500	138	64.3	52.4	52.4	40.6	44.1	33.1
500	207	63.0	51.3	51.5	40.0	43.3	32.7
750	69	71.1	56.6	56.6	43.1	47.0	34.7
750	103	69.6	55.7	55.7	42.5	46.3	34.3
750	138	68.5	54.9	54.9	42.1	45.7	34.1
750	207	66.9	53.9	53.9	41.5	45.0	33.7
750	Open	61.6	50.6	50.6	39.6	42.7	32.4
1000	69	74.7	58.7	58.7	44.2	48.3	35.5
1000	103	73.2	57.9	57.9	43.8	47.7	35.2
1000	138	71.8	57.0	57.0	43.3	47.1	35.0
1000	207	70.1	56.0	56.0	42.7	46.4	34.6
1000	Open	64.3	52.3	52.2	40.6	43.8	33.1
1250	69	77.2	60.3	60.3	45.1	49.3	36.1
1250	103	75.7	59.4	59.4	44.6	48.8	35.7
1250	138	74.4	58.7	58.5	44.2	48.3	35.5
1250	207	72.5	57.7	57.5	43.7	47.5	35.2
1250	Open	66.3	53.7	53.4	41.5	44.7	33.7
1500	Open	67.8	54.8	54.5	42.0	45.4	34.1
1750	Open	69.2	55.8	55.3	42.7	45.9	34.5
2000	Open	70.5	56.6	56.2	43.2	46.4	34.8
2250	Open	71.6	57.2	56.8	43.5	46.8	35.0
2500	Open	72.6	57.9	57.4	43.9	47.2	35.3

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1322

69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

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

25°C Earth Ambient

Size	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	0.51	27.39	1.745	1.95	0.27	1.43	0.24	4.00	6.34
500	103	2.679	5.05	0.51	27.39	1.577	1.95	0.27	1.44	0.24	4.00	6.34
500	138	2.679	5.05	0.51	27.39	1.456	1.95	0.27	1.44	0.24	4.00	6.34
500	207	2.679	5.05	0.51	27.39	1.317	1.95	0.27	1.45	0.24	4.00	6.34
750	69	2.918	5.05	0.57	18.60	2.043	1.72	0.32	1.31	0.24	4.00	6.34
750	103	2.918	5.05	0.57	18.60	1.801	1.72	0.32	1.31	0.24	4.00	6.34
750	138	2.918	5.05	0.57	18.60	1.631	1.72	0.32	1.32	0.24	4.00	6.34
750	207	2.918	5.05	0.57	18.60	1.438	1.72	0.32	1.32	0.24	4.00	6.34
750	Open	2.918	5.05	0.57	18.60	1.003	1.72	0.32	1.35	0.24	4.00	6.34
1000	69	3.107	5.05	0.63	14.30	2.302	1.56	0.30	1.22	0.24	4.00	6.34
1000	103	3.107	5.05	0.63	14.30	1.994	1.56	0.30	1.23	0.24	4.00	6.34
1000	138	3.107	5.05	0.63	14.30	1.782	1.56	0.30	1.23	0.24	4.00	6.34
1000	207	3.107	5.05	0.63	14.30	1.541	1.56	0.30	1.24	0.24	4.00	6.34
1000	Open	3.107	5.05	0.63	14.30	1.004	1.56	0.30	1.26	0.24	4.00	6.34
1250	69	3.240	5.05	0.68	11.79	2.524	1.45	0.28	1.17	0.24	4.00	6.34
1250	103	3.240	5.05	0.68	11.79	2.158	1.45	0.28	1.18	0.24	4.00	6.34
1250	138	3.240	5.05	0.68	11.79	1.908	1.45	0.28	1.18	0.24	4.00	6.34
1250	207	3.240	5.05	0.68	11.79	1.628	1.45	0.28	1.19	0.24	4.00	6.34
1250	Open	3.240	5.05	0.68	11.79	1.005	1.45	0.28	1.21	0.24	4.00	6.34
1500	Open	3.360	5.05	0.72	10.16	1.006	1.36	0.27	1.16	0.24	4.00	6.34
1750	Open	3.470	5.05	0.76	9.03	1.008	1.29	0.26	1.13	0.24	4.00	6.34
2000	Open	3.573	5.05	0.80	8.18	1.009	1.22	0.26	1.09	0.24	4.00	6.34
2250	Open	3.668	5.05	0.83	7.60	1.010	1.17	0.25	1.06	0.24	4.00	6.34
2500	Open	3.759	5.05	0.86	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 Filled X L P E or E P R Power Cable

Direct Buried - Triplexed - Single Circuit

25°C Earth Ambient

90°C - Copper Conductor - Concentric Strand

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 .0150 pf & Rho 60	90	120
						75% LF							
500	69	672	62	40.9	596	68	32.4	541	72	27.0	2.3	3.2	4.0
500	103	682	61	40.2	606	67	32.0	551	71	26.7	2.3	3.2	4.0
500	138	688	61	39.7	612	67	31.7	556	71	26.5	2.3	3.2	4.0
500	207	694	60	39.3	618	67	31.4	562	71	26.2	2.3	3.2	4.0
750	69	815	64	40.7	719	69	32.0	650	73	26.4	2.5	3.5	4.4
750	103	833	63	39.8	737	69	31.4	667	72	26.0	2.5	3.5	4.4
750	138	844	62	39.2	747	68	31.1	677	72	25.7	2.5	3.5	4.4
750	207	855	62	38.6	758	68	30.7	688	72	25.5	2.5	3.5	4.4
1000	69	930	65	41.0	816	71	31.9	735	75	26.2	2.7	3.7	4.7
1000	103	956	64	39.9	842	70	31.2	760	74	25.7	2.7	3.7	4.7
1000	138	971	64	39.3	857	70	30.8	774	73	25.5	2.7	3.7	4.7
1000	207	988	63	38.6	873	69	30.4	789	73	25.2	2.7	3.7	4.7
1250	69	1020	67	41.3	891	72	31.9	801	76	26.1	2.8	3.9	4.9
1250	103	1053	66	40.2	924	71	31.3	832	75	25.6	2.8	3.9	4.9
1250	138	1073	65	39.5	943	71	30.8	850	74	25.3	2.8	3.9	4.9
1250	207	1095	64	38.8	964	70	30.4	870	74	25.0	2.8	3.9	4.9
1500	69	1092	68	41.5	951	73	31.9	853	76	25.9	2.9	4.0	5.1
1500	103	1133	67	40.4	990	72	31.2	890	76	25.5	2.9	4.0	5.1
1500	138	1157	66	39.7	1014	71	30.8	912	75	25.2	2.9	4.0	5.1
1500	207	1183	65	38.8	1039	71	30.3	936	74	24.9	2.9	4.0	5.1
1750	69	1152	69	41.7	1001	74	31.8	895	77	25.8	3.0	4.2	5.4
1750	103	1199	67	40.4	1045	73	31.1	937	76	25.3	3.0	4.2	5.4
1750	138	1227	67	39.7	1072	72	30.7	963	76	25.0	3.0	4.2	5.4
1750	207	1258	66	38.8	1102	71	30.2	991	75	24.7	3.0	4.2	5.4
2000	69	1204	69	41.7	1043	75	31.7	932	78	25.7	3.1	4.3	5.5
2000	103	1257	68	40.5	1093	73	31.1	979	77	25.2	3.1	4.3	5.5
2000	138	1289	67	39.7	1124	73	30.6	1008	76	24.9	3.1	4.3	5.5
2000	207	1324	66	38.9	1157	72	30.0	1039	75	24.6	3.1	4.3	5.5
2250	69	1245	70	41.7	1077	75	31.6	961	78	25.5	3.2	4.5	5.7
2250	103	1303	69	40.4	1131	74	30.9	1012	77	25.0	3.2	4.5	5.7
2250	138	1338	68	39.7	1165	73	30.4	1043	77	24.7	3.2	4.5	5.7
2250	207	1377	67	38.8	1201	72	29.9	1078	76	24.4	3.2	4.5	5.7
2500	69	1283	71	41.6	1108	75	31.4	988	78	25.4	3.3	4.6	5.9
2500	103	1346	69	40.4	1167	74	30.7	1043	78	24.9	3.3	4.6	5.9
2500	138	1385	68	39.6	1203	74	30.3	1076	77	24.6	3.3	4.6	5.9
2500	207	1427	67	38.7	1243	73	29.8	1114	76	24.3	3.3	4.6	5.9

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - Triplexed - Single Circuit

25°C Earth Ambient

90°C - Copper Conductor - Concentric Strand

		---- 60 Rho--- Interface			---- 90 Rho--- Interface			----120 Rho--- Interface			delta Td for .0150 pf & Rho		
Condr Size	Shield Res	Amps	Temp °C	Flux w/ft²	Amps	Temp °C	Flux w/ft²	Amps	Temp °C	Flux w/ft²	60	90	120
						100% LF							
500	69	607	67	33.6	526	73	25.6	469	76	20.6	2.3	3.2	4.0
500	103	617	66	33.2	536	72	25.2	478	76	20.4	2.3	3.2	4.0
500	138	623	66	32.9	541	72	25.2	483	76	20.3	2.3	3.2	4.0
500	207	629	66	32.5	547	72	25.0	489	75	20.2	2.3	3.2	4.0
750	69	731	69	33.0	629	74	24.8	559	78	19.9	2.5	3.5	4.4
750	103	749	68	32.3	646	74	24.5	575	77	19.6	2.5	3.5	4.4
750	138	759	67	32.0	656	73	24.3	584	77	19.5	2.5	3.5	4.4
750	207	770	67	31.7	666	73	24.1	594	76	19.4	2.5	3.5	4.4
1000	69	828	70	32.8	709	76	24.4	627	79	19.4	2.7	3.7	4.7
1000	103	853	69	32.1	733	75	24.0	650	78	19.2	2.7	3.7	4.7
1000	138	868	69	31.7	747	74	23.8	663	78	19.1	2.7	3.7	4.7
1000	207	884	68	31.2	762	74	23.5	677	77	18.9	2.7	3.7	4.7
1250	69	902	72	32.7	769	77	24.2	679	80	19.2	2.8	3.9	4.9
1250	103	935	71	32.0	800	76	23.8	707	79	18.9	2.8	3.9	4.9
1250	138	955	70	31.6	818	75	23.5	724	79	18.8	2.8	3.9	4.9
1250	207	976	69	31.1	837	75	23.3	742	78	18.6	2.8	3.9	4.9
1500	69	962	73	32.6	817	78	23.9	720	80	18.9	2.9	4.0	5.1
1500	103	1001	72	31.9	853	77	23.6	753	80	18.7	2.9	4.0	5.1
1500	138	1025	71	31.4	875	76	23.4	773	79	18.6	2.9	4.0	5.1
1500	207	1050	70	30.9	899	76	23.1	795	79	18.4	2.9	4.0	5.1
1750	69	1010	74	32.5	856	78	23.7	753	81	18.7	3.0	4.2	5.4
1750	103	1056	72	31.7	897	77	23.4	790	80	18.5	3.0	4.2	5.4
1750	138	1083	72	31.3	922	77	23.1	813	80	18.3	3.0	4.2	5.4
1750	207	1113	71	30.7	950	76	22.8	839	79	18.2	3.0	4.2	5.4
2000	69	1052	74	32.3	889	79	23.5	781	81	18.5	3.1	4.3	5.5
2000	103	1103	73	31.5	935	78	23.1	823	81	18.3	3.1	4.3	5.5
2000	138	1134	72	31.1	963	77	22.9	848	80	18.1	3.1	4.3	5.5
2000	207	1167	72	30.6	994	77	22.6	877	80	17.9	3.1	4.3	5.5
2250	69	1085	75	32.0	915	79	23.3	802	82	18.2	3.2	4.5	5.7
2250	103	1140	74	31.3	964	78	22.9	847	81	18.0	3.2	4.5	5.7
2250	138	1173	73	30.8	995	78	22.6	875	81	17.9	3.2	4.5	5.7
2250	207	1210	72	30.4	1029	77	22.4	906	80	17.7	3.2	4.5	5.7
2500	69	1115	75	31.8	939	80	23.1	822	82	18.1	3.3	4.6	5.9
2500	103	1174	74	31.1	992	79	22.7	871	81	17.9	3.3	4.6	5.9
2500	138	1211	74	30.7	1025	78	22.5	901	81	17.7	3.3	4.6	5.9
2500	207	1251	73	30.2	1062	78	22.2	934	80	17.5	3.3	4.6	5.9

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - Triplexed - Single Circuit

25°C Earth Ambient

80°C - Copper Conductor - Concentric Strand

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 .0150 pf & Rho 60	90	120
						75% LF							
500	69	624	56	34.8	552	62	27.5	500	65	22.8	2.3	3.2	4.0
500	103	634	56	34.1	562	61	27.1	510	64	22.6	2.3	3.2	4.0
500	138	639	56	33.7	568	61	26.9	515	64	22.4	2.3	3.2	4.0
500	207	645	55	33.3	573	60	26.6	521	64	22.2	2.3	3.2	4.0
750	69	755	58	34.6	665	63	27.1	600	66	22.4	2.5	3.5	4.4
750	103	772	57	33.7	682	62	26.6	616	65	22.0	2.5	3.5	4.4
750	138	783	57	33.2	692	62	26.3	626	65	21.8	2.5	3.5	4.4
750	207	793	56	32.7	702	61	26.0	636	65	21.6	2.5	3.5	4.4
1000	69	859	59	34.8	753	64	27.0	677	67	22.2	2.7	3.7	4.7
1000	103	885	58	33.9	777	63	26.5	700	67	21.8	2.7	3.7	4.7
1000	138	899	58	33.3	792	63	26.1	714	66	21.5	2.7	3.7	4.7
1000	207	915	57	32.7	807	62	25.8	729	66	21.3	2.7	3.7	4.7
1250	69	940	61	35.1	820	65	27.0	735	68	22.1	2.8	3.9	4.9
1250	103	973	60	34.1	851	64	26.4	765	67	21.7	2.8	3.9	4.9
1250	138	992	59	33.5	870	64	26.1	783	67	21.4	2.8	3.9	4.9
1250	207	1013	58	32.8	890	63	25.7	802	66	21.2	2.8	3.9	4.9
1500	69	1006	61	35.2	874	66	27.0	782	69	21.9	2.9	4.0	5.1
1500	103	1045	60	34.2	911	65	26.4	817	68	21.6	2.9	4.0	5.1
1500	138	1068	60	33.6	934	65	26.1	838	68	21.3	2.9	4.0	5.1
1500	207	1094	59	33.0	958	64	25.6	861	67	21.0	2.9	4.0	5.1
1750	69	1059	62	35.4	918	67	27.0	820	69	21.8	3.0	4.2	5.4
1750	103	1104	61	34.3	961	66	26.4	860	69	21.4	3.0	4.2	5.4
1750	138	1132	61	33.6	987	65	25.9	884	68	21.2	3.0	4.2	5.4
1750	207	1161	60	32.9	1015	65	25.5	911	68	20.9	3.0	4.2	5.4
2000	69	1106	63	35.4	956	67	26.9	852	70	21.7	3.1	4.3	5.5
2000	103	1157	62	34.4	1004	66	26.3	897	69	21.3	3.1	4.3	5.5
2000	138	1188	61	33.7	1033	66	25.9	924	69	21.0	3.1	4.3	5.5
2000	207	1221	60	32.9	1065	65	25.4	954	68	20.7	3.1	4.3	5.5
2250	69	1143	63	35.4	986	68	26.7	878	70	21.5	3.2	4.5	5.7
2250	103	1198	62	34.3	1038	67	26.1	926	69	21.1	3.2	4.5	5.7
2250	138	1232	62	33.6	1069	66	25.7	956	69	20.9	3.2	4.5	5.7
2250	207	1269	61	32.9	1105	65	25.3	989	68	20.6	3.2	4.5	5.7
2500	69	1177	64	35.3	1014	68	26.6	902	71	21.4	3.3	4.6	5.9
2500	103	1237	63	34.3	1070	67	26.0	953	70	21.0	3.3	4.6	5.9
2500	138	1274	62	33.6	1104	67	25.6	985	69	20.7	3.3	4.6	5.9
2500	207	1314	61	32.8	1142	66	25.2	1021	69	20.5	3.3	4.6	5.9

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1326

69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - Triplexed - Single Circuit

25°C Earth Ambient

80°C - Copper Conductor - Concentric Strand

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 .0150 pf & Rho 60	90	120
						100% LF							
500	69	564	61	28.6	487	66	21.7	434	69	17.5	2.3	3.2	4.0
500	103	573	60	28.1	497	65	21.5	443	68	17.3	2.3	3.2	4.0
500	138	579	60	27.9	502	65	21.3	448	68	17.2	2.3	3.2	4.0
500	207	585	60	27.6	508	65	21.1	453	68	17.2	2.3	3.2	4.0
750	69	676	62	28.0	581	67	21.0	515	70	16.8	2.5	3.5	4.4
750	103	694	62	27.5	598	66	20.8	531	69	16.7	2.5	3.5	4.4
750	138	704	61	27.1	607	66	20.6	540	69	16.6	2.5	3.5	4.4
750	207	715	61	26.8	617	66	20.4	549	69	16.4	2.5	3.5	4.4
1000	69	764	64	27.8	653	68	20.7	577	71	16.5	2.7	3.7	4.7
1000	103	789	63	27.3	676	67	20.4	599	70	16.3	2.7	3.7	4.7
1000	138	804	62	26.9	690	67	20.2	611	70	16.2	2.7	3.7	4.7
1000	207	819	62	26.5	705	67	20.0	625	69	16.0	2.7	3.7	4.7
1250	69	832	65	27.8	708	69	20.5	624	71	16.3	2.8	3.9	4.9
1250	103	863	64	27.2	737	68	20.2	650	71	16.0	2.8	3.9	4.9
1250	138	882	63	26.8	754	68	20.0	667	71	16.0	2.8	3.9	4.9
1250	207	903	63	26.4	773	67	19.8	684	70	15.8	2.8	3.9	4.9
1500	69	885	66	27.7	751	70	20.3	660	72	16.0	2.9	4.0	5.1
1500	103	923	65	27.1	785	69	20.0	691	71	15.8	2.9	4.0	5.1
1500	138	946	64	26.7	806	69	19.8	711	71	15.8	2.9	4.0	5.1
1500	207	970	64	26.3	829	68	19.6	732	71	15.6	2.9	4.0	5.1
1750	69	929	66	27.5	785	70	20.1	689	73	15.9	3.0	4.2	5.4
1750	103	972	65	26.9	824	70	19.8	725	72	15.7	3.0	4.2	5.4
1750	138	998	65	26.6	848	69	19.6	747	72	15.5	3.0	4.2	5.4
1750	207	1027	64	26.1	875	69	19.4	771	71	15.4	3.0	4.2	5.4
2000	69	966	67	27.4	815	71	19.9	714	73	15.7	3.1	4.3	5.5
2000	103	1014	66	26.7	858	70	19.6	753	72	15.5	3.1	4.3	5.5
2000	138	1044	65	26.4	885	70	19.4	778	72	15.4	3.1	4.3	5.5
2000	207	1076	65	25.9	915	69	19.2	805	71	15.2	3.1	4.3	5.5
2250	69	995	67	27.2	838	71	19.8	733	73	15.5	3.2	4.5	5.7
2250	103	1047	66	26.6	884	70	19.4	775	73	15.3	3.2	4.5	5.7
2250	138	1080	66	26.2	913	70	19.2	802	72	15.2	3.2	4.5	5.7
2250	207	1115	65	25.8	946	69	19.0	831	72	15.0	3.2	4.5	5.7
2500	69	1022	68	27.0	859	71	19.5	750	73	15.3	3.3	4.6	5.9
2500	103	1079	67	26.4	909	71	19.3	796	73	15.1	3.3	4.6	5.9
2500	138	1113	66	26.1	940	70	19.0	824	73	15.0	3.3	4.6	5.9
2500	207	1152	66	25.6	975	70	18.8	856	72	14.9	3.3	4.6	5.9

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - Triplexed - Single Circuit

25°C Earth Ambient

65°C - Copper Conductor - Concentric Strand

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 .0150 pf & Rho 60	90	120
						75% LF							
500	69	538	48	25.3	474	52	20.0	428	54	16.6	2.3	3.2	4.0
500	103	547	48	24.9	483	52	19.8	437	54	16.4	2.3	3.2	4.0
500	138	552	48	24.6	488	51	19.6	442	54	16.3	2.3	3.2	4.0
500	207	557	47	24.3	494	51	19.3	447	54	16.1	2.3	3.2	4.0
750	69	648	49	25.2	568	53	19.7	510	55	16.2	2.5	3.5	4.4
750	103	664	49	24.6	584	53	19.4	526	55	15.9	2.5	3.5	4.4
750	138	673	48	24.3	593	52	19.1	534	55	15.8	2.5	3.5	4.4
750	207	683	48	23.8	603	52	18.9	544	54	15.7	2.5	3.5	4.4
1000	69	735	50	25.4	641	54	19.7	573	56	16.0	2.7	3.7	4.7
1000	103	758	50	24.7	663	53	19.2	595	56	15.8	2.7	3.7	4.7
1000	138	772	49	24.3	676	53	19.0	607	55	15.6	2.7	3.7	4.7
1000	207	786	49	23.9	691	53	18.7	621	55	15.4	2.7	3.7	4.7
1250	69	802	51	25.6	696	55	19.7	621	57	16.0	2.8	3.9	4.9
1250	103	831	51	24.9	724	54	19.2	647	56	15.7	2.8	3.9	4.9
1250	138	849	50	24.4	741	54	18.9	663	56	15.5	2.8	3.9	4.9
1250	207	868	50	23.9	759	53	18.6	681	56	15.3	2.8	3.9	4.9
1500	69	855	52	25.7	739	55	19.6	658	57	15.8	2.9	4.0	5.1
1500	103	891	51	25.0	773	55	19.2	689	57	15.6	2.9	4.0	5.1
1500	138	912	51	24.5	793	54	18.9	708	56	15.4	2.9	4.0	5.1
1500	207	935	50	24.0	815	54	18.6	729	56	15.2	2.9	4.0	5.1
1750	69	900	53	25.8	776	56	19.6	689	58	15.7	3.0	4.2	5.4
1750	103	941	52	25.0	814	55	19.1	724	57	15.5	3.0	4.2	5.4
1750	138	965	51	24.6	837	55	18.9	746	57	15.3	3.0	4.2	5.4
1750	207	992	51	24.0	863	54	18.5	770	56	15.1	3.0	4.2	5.4
2000	69	937	53	25.8	806	56	19.5	714	58	15.6	3.1	4.3	5.5
2000	103	982	52	25.0	848	55	19.1	753	58	15.4	3.1	4.3	5.5
2000	138	1010	52	24.5	874	55	18.7	777	57	15.2	3.1	4.3	5.5
2000	207	1041	51	24.0	903	55	18.5	805	57	15.0	3.1	4.3	5.5
2250	69	967	53	25.7	829	56	19.4	734	58	15.6	3.2	4.5	5.7
2250	103	1016	53	25.0	875	56	19.0	776	58	15.2	3.2	4.5	5.7
2250	138	1046	52	24.5	903	55	18.6	802	57	15.1	3.2	4.5	5.7
2250	207	1080	51	24.0	935	55	18.3	832	57	14.8	3.2	4.5	5.7
2500	69	995	54	25.7	852	57	19.3	753	59	15.4	3.3	4.6	5.9
2500	103	1048	53	24.9	901	56	18.8	798	58	15.2	3.3	4.6	5.9
2500	138	1081	52	24.5	931	56	18.6	826	58	15.0	3.3	4.6	5.9
2500	207	1118	52	23.9	966	55	18.2	858	57	14.7	3.3	4.6	5.9

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1328

69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - Triplexed - Single Circuit

25°C Earth Ambient

65°C - Copper Conductor - Concentric Strand

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 .0150 pf & Rho 60	90	120
						100% LF							
500	69	485	51	20.9	418	55	15.9	371	57	12.8	2.3	3.2	4.0
500	103	494	51	20.6	427	55	15.6	379	57	12.7	2.3	3.2	4.0
500	138	500	51	20.4	432	54	15.5	384	57	12.6	2.3	3.2	4.0
500	207	505	50	20.2	437	54	15.5	389	56	12.5	2.3	3.2	4.0
750	69	580	52	20.5	496	56	15.4	438	58	12.3	2.5	3.5	4.4
750	103	596	52	20.1	511	55	15.2	452	58	12.2	2.5	3.5	4.4
750	138	605	52	19.9	520	55	15.0	461	57	12.1	2.5	3.5	4.4
750	207	615	51	19.6	530	55	14.9	469	57	12.0	2.5	3.5	4.4
1000	69	653	54	20.4	556	57	15.1	489	59	12.1	2.7	3.7	4.7
1000	103	676	53	19.9	576	56	14.9	508	58	11.9	2.7	3.7	4.7
1000	138	689	53	19.7	589	56	14.8	520	58	11.9	2.7	3.7	4.7
1000	207	704	52	19.4	603	56	14.6	532	58	11.7	2.7	3.7	4.7
1250	69	709	54	20.4	600	57	15.0	526	59	11.9	2.8	3.9	4.9
1250	103	737	54	19.9	626	57	14.8	550	59	11.7	2.8	3.9	4.9
1250	138	755	53	19.6	642	57	14.6	565	58	11.7	2.8	3.9	4.9
1250	207	773	53	19.3	659	56	14.5	581	58	11.5	2.8	3.9	4.9
1500	69	752	55	20.3	634	58	14.8	555	60	11.7	2.9	4.0	5.1
1500	103	786	54	19.8	665	57	14.6	583	59	11.6	2.9	4.0	5.1
1500	138	807	54	19.6	684	57	14.5	600	59	11.5	2.9	4.0	5.1
1500	207	830	53	19.2	705	57	14.3	619	59	11.4	2.9	4.0	5.1
1750	69	788	55	20.2	663	58	14.7	578	60	11.6	3.0	4.2	5.4
1750	103	827	55	19.7	698	58	14.5	610	59	11.4	3.0	4.2	5.4
1750	138	851	54	19.4	719	57	14.4	630	59	11.4	3.0	4.2	5.4
1750	207	877	54	19.1	743	57	14.1	652	59	11.2	3.0	4.2	5.4
2000	69	818	56	20.0	686	59	14.6	597	60	11.5	3.1	4.3	5.5
2000	103	861	55	19.6	724	58	14.3	632	60	11.3	3.1	4.3	5.5
2000	138	887	55	19.3	748	58	14.2	654	59	11.2	3.1	4.3	5.5
2000	207	917	54	18.9	775	57	14.0	678	59	11.1	3.1	4.3	5.5
2250	69	841	56	19.9	704	59	14.4	612	60	11.3	3.2	4.5	5.7
2250	103	888	56	19.4	745	58	14.2	649	60	11.2	3.2	4.5	5.7
2250	138	916	55	19.2	771	58	14.0	673	60	11.1	3.2	4.5	5.7
2250	207	949	55	18.8	800	58	13.8	699	59	11.0	3.2	4.5	5.7
2500	69	863	57	19.8	721	59	14.3	626	61	11.2	3.3	4.6	5.9
2500	103	913	56	19.3	765	59	14.1	666	60	11.1	3.3	4.6	5.9
2500	138	944	55	19.0	793	58	13.9	691	60	10.9	3.3	4.6	5.9
2500	207	979	55	18.7	824	58	13.8	719	60	10.9	3.3	4.6	5.9

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - Triplexed - Single Circuit

25°C Earth Ambient

50°C - Copper Conductor - Concentric Strand

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 .0150 pf & Rho 60	90	120
						75% LF							
500	69	425	40	15.9	372	42	12.5	333	44	10.2	2.3	3.2	4.0
500	103	433	40	15.5	380	42	12.3	340	44	10.2	2.3	3.2	4.0
500	138	437	40	15.4	384	42	12.2	345	44	10.1	2.3	3.2	4.0
500	207	442	39	15.2	389	42	12.0	349	43	10.0	2.3	3.2	4.0
750	69	510	41	15.8	443	43	12.3	394	44	10.0	2.5	3.5	4.4
750	103	523	40	15.4	456	43	12.0	406	44	9.9	2.5	3.5	4.4
750	138	531	40	15.2	464	43	11.9	414	44	9.7	2.5	3.5	4.4
750	207	540	40	14.9	472	42	11.7	422	44	9.7	2.5	3.5	4.4
1000	69	575	41	15.9	497	44	12.2	440	45	9.9	2.7	3.7	4.7
1000	103	595	41	15.5	515	43	11.9	457	45	9.8	2.7	3.7	4.7
1000	138	606	41	15.2	526	43	11.8	468	45	9.6	2.7	3.7	4.7
1000	207	619	40	14.9	538	43	11.6	479	44	9.5	2.7	3.7	4.7
1250	69	625	42	16.0	537	44	12.2	474	45	9.8	2.8	3.9	4.9
1250	103	650	42	15.5	560	44	12.0	495	45	9.7	2.8	3.9	4.9
1250	138	665	41	15.3	574	43	11.7	508	45	9.6	2.8	3.9	4.9
1250	207	681	41	14.9	589	43	11.6	523	45	9.4	2.8	3.9	4.9
1500	69	665	42	16.0	568	44	12.2	500	46	9.7	2.9	4.0	5.1
1500	103	694	42	15.6	595	44	11.9	525	45	9.6	2.9	4.0	5.1
1500	138	712	42	15.3	612	44	11.7	540	45	9.5	2.9	4.0	5.1
1500	207	731	41	15.0	631	44	11.5	557	45	9.3	2.9	4.0	5.1
1750	69	698	43	16.1	594	45	12.1	521	46	9.6	3.0	4.2	5.4
1750	103	731	42	15.6	625	44	11.9	549	46	9.5	3.0	4.2	5.4
1750	138	752	42	15.3	644	44	11.7	567	45	9.4	3.0	4.2	5.4
1750	207	774	42	15.0	665	44	11.4	587	45	9.3	3.0	4.2	5.4
2000	69	725	43	16.0	615	45	12.1	538	46	9.6	3.1	4.3	5.5
2000	103	762	43	15.6	649	45	11.8	569	46	9.4	3.1	4.3	5.5
2000	138	785	42	15.3	670	44	11.6	589	46	9.3	3.1	4.3	5.5
2000	207	810	42	15.0	694	44	11.4	611	45	9.2	3.1	4.3	5.5
2250	69	747	43	16.0	632	45	11.9	552	46	9.5	3.2	4.5	5.7
2250	103	786	43	15.6	668	45	11.7	585	46	9.3	3.2	4.5	5.7
2250	138	811	42	15.2	692	45	11.5	606	46	9.3	3.2	4.5	5.7
2250	207	839	42	14.9	717	44	11.4	630	46	9.1	3.2	4.5	5.7
2500	69	767	43	16.0	648	45	11.9	564	46	9.4	3.3	4.6	5.9
2500	103	810	43	15.5	687	45	11.7	599	46	9.3	3.3	4.6	5.9
2500	138	837	43	15.2	712	45	11.5	622	46	9.2	3.3	4.6	5.9
2500	207	867	42	14.9	740	44	11.3	648	46	9.0	3.3	4.6	5.9

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1330

69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - Triplexed - Single Circuit

25°C Earth Ambient

50°C - Copper Conductor - Concentric Strand

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 .0150 pf & Rho 60	90	120
						100% LF							
500	69	384	42	13.2	328	44	10.0	288	45	8.1	2.3	3.2	4.0
500	103	391	42	13.0	335	44	9.9	295	45	8.0	2.3	3.2	4.0
500	138	396	41	12.8	339	44	9.8	299	45	7.9	2.3	3.2	4.0
500	207	401	41	12.8	344	44	9.7	303	45	7.9	2.3	3.2	4.0
750	69	456	43	12.9	386	45	9.7	338	46	7.8	2.5	3.5	4.4
750	103	469	42	12.7	399	44	9.6	350	46	7.7	2.5	3.5	4.4
750	138	477	42	12.5	406	44	9.5	357	46	7.6	2.5	3.5	4.4
750	207	486	42	12.4	415	44	9.4	364	45	7.6	2.5	3.5	4.4
1000	69	511	43	12.9	430	45	9.5	375	46	7.6	2.7	3.7	4.7
1000	103	530	43	12.5	448	45	9.4	390	46	7.5	2.7	3.7	4.7
1000	138	541	43	12.4	458	45	9.3	400	46	7.4	2.7	3.7	4.7
1000	207	554	42	12.2	470	45	9.2	410	46	7.4	2.7	3.7	4.7
1250	69	552	44	12.9	462	46	9.4	401	47	7.5	2.8	3.9	4.9
1250	103	576	43	12.6	484	45	9.3	420	46	7.4	2.8	3.9	4.9
1250	138	590	43	12.3	497	45	9.2	432	46	7.4	2.8	3.9	4.9
1250	207	606	43	12.2	512	45	9.1	446	46	7.3	2.8	3.9	4.9
1500	69	584	44	12.8	487	46	9.3	421	47	7.4	2.9	4.0	5.1
1500	103	612	44	12.5	512	46	9.2	443	47	7.3	2.9	4.0	5.1
1500	138	629	43	12.3	528	45	9.1	457	47	7.2	2.9	4.0	5.1
1500	207	648	43	12.1	545	45	9.0	473	46	7.2	2.9	4.0	5.1
1750	69	611	44	12.7	507	46	9.2	437	47	7.3	3.0	4.2	5.4
1750	103	642	44	12.4	535	46	9.1	462	47	7.2	3.0	4.2	5.4
1750	138	662	44	12.2	553	46	9.0	478	47	7.1	3.0	4.2	5.4
1750	207	684	43	12.0	573	45	8.9	496	47	7.1	3.0	4.2	5.4
2000	69	632	45	12.6	523	46	9.2	450	47	7.2	3.1	4.3	5.5
2000	103	667	44	12.3	554	46	9.0	477	47	7.1	3.1	4.3	5.5
2000	138	689	44	12.1	574	46	8.9	495	47	7.1	3.1	4.3	5.5
2000	207	713	44	11.9	596	46	8.8	514	47	7.0	3.1	4.3	5.5
2250	69	649	45	12.5	536	47	9.1	460	47	7.1	3.2	4.5	5.7
2250	103	687	44	12.3	569	46	8.9	489	47	7.0	3.2	4.5	5.7
2250	138	710	44	12.1	590	46	8.9	508	47	7.0	3.2	4.5	5.7
2250	207	737	44	11.9	614	46	8.7	529	47	6.9	3.2	4.5	5.7
2500	69	665	45	12.4	548	47	9.0	469	48	7.0	3.3	4.6	5.9
2500	103	705	45	12.2	583	46	8.8	500	47	6.9	3.3	4.6	5.9
2500	138	730	44	12.0	605	46	8.8	520	47	6.9	3.3	4.6	5.9
2500	207	759	44	11.8	631	46	8.6	543	47	6.9	3.3	4.6	5.9

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - Triplexed - Single Circuit

25°C Earth Ambient

Total Watts/ft for 90°C - Copper Conductor - Concentric Strand

		60 Rho		90 Rho		120 Rho	
		75 LF	100 LF	75 LF	100 LF	75 LF	100 LF
Condr Size	Shield Res						
500	69	45.5	37.4	36.1	28.5	30.0	22.9
500	103	44.7	36.8	35.6	28.2	29.7	22.7
500	138	44.2	36.6	35.3	27.9	29.4	22.6
500	207	43.8	36.2	35.0	27.8	29.2	22.5
750	69	49.3	40.0	38.7	30.1	32.0	24.1
750	103	48.2	39.3	38.1	29.6	31.5	23.8
750	138	47.6	38.8	37.6	29.4	31.2	23.7
750	207	46.9	38.3	37.2	29.1	31.0	23.5
1000	69	52.9	42.3	41.2	31.5	33.8	25.1
1000	103	51.5	41.4	40.4	31.1	33.2	24.8
1000	138	50.7	40.9	39.9	30.8	32.9	24.6
1000	207	49.9	40.3	39.4	30.5	32.5	24.4
1250	69	55.7	44.0	43.0	32.5	35.1	25.8
1250	103	54.1	43.1	42.1	32.1	34.5	25.5
1250	138	53.1	42.5	41.5	31.7	34.1	25.3
1250	207	52.2	41.9	40.9	31.4	33.7	25.1
1500	69	58.0	45.5	44.5	33.4	36.3	26.5
1500	103	56.4	44.5	43.6	32.9	35.6	26.1
1500	138	55.3	43.9	43.0	32.6	35.2	25.9
1500	207	54.2	43.2	42.3	32.2	34.7	25.7
1750	69	60.1	46.7	45.9	34.2	37.2	27.0
1750	103	58.3	45.8	44.9	33.6	36.5	26.6
1750	138	57.2	45.1	44.2	33.3	36.1	26.4
1750	207	56.0	44.4	43.5	32.9	35.6	26.2
2000	69	62.0	47.9	47.1	34.9	38.1	27.5
2000	103	60.1	46.8	46.0	34.3	37.4	27.1
2000	138	59.0	46.2	45.4	34.0	37.0	26.9
2000	207	57.7	45.3	44.6	33.5	36.4	26.6
2250	69	63.5	48.8	48.2	35.5	38.9	27.8
2250	103	61.6	47.8	47.1	34.9	38.2	27.5
2250	138	60.4	47.0	46.4	34.5	37.7	27.3
2250	207	59.1	46.2	45.6	34.1	37.2	27.0
2500	69	65.0	49.7	49.1	36.0	39.6	28.2
2500	103	63.1	48.6	48.0	35.4	38.9	27.9
2500	138	61.9	47.9	47.3	35.1	38.4	27.7
2500	207	60.5	47.1	46.5	34.6	37.9	27.4

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1332

69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - Triplexed - Single Circuit

25°C Earth Ambient

Total Watts/ft for 80°C - Copper Conductor - Concentric Strand

		60 Rho		90 Rho		120 Rho	
		75 LF	100 LF	75 LF	100 LF	75 LF	100 LF
Condr Size	Shield Res						
500	69	38.7	31.9	30.6	24.1	25.4	19.5
500	103	38.0	31.3	30.1	23.9	25.1	19.3
500	138	37.5	31.0	29.9	23.7	24.9	19.2
500	207	37.1	30.8	29.6	23.6	24.7	19.1
750	69	41.8	33.9	32.8	25.5	27.1	20.4
750	103	40.8	33.3	32.2	25.2	26.6	20.2
750	138	40.3	32.9	31.9	24.9	26.4	20.1
750	207	39.7	32.6	31.5	24.7	26.1	19.9
1000	69	44.9	35.9	34.9	26.7	28.6	21.3
1000	103	43.8	35.2	34.2	26.3	28.1	21.1
1000	138	43.0	34.8	33.8	26.1	27.8	20.9
1000	207	42.2	34.2	33.3	25.8	27.5	20.7
1250	69	47.2	37.4	36.4	27.6	29.6	21.9
1250	103	45.9	36.5	35.6	27.2	29.1	21.6
1250	138	45.1	36.1	35.2	26.9	28.9	21.5
1250	207	44.2	35.6	34.6	26.6	28.5	21.3
1500	69	49.3	38.6	37.7	28.4	30.6	22.4
1500	103	47.8	37.8	36.9	27.9	30.1	22.1
1500	138	46.9	37.3	36.4	27.7	29.7	22.0
1500	207	46.0	36.6	35.8	27.3	29.3	21.8
1750	69	51.0	39.7	38.9	29.0	31.5	22.9
1750	103	49.5	38.9	38.0	28.6	30.9	22.6
1750	138	48.6	38.3	37.5	28.3	30.5	22.4
1750	207	47.5	37.7	36.8	28.0	30.1	22.2
2000	69	52.5	40.6	39.8	29.6	32.1	23.3
2000	103	51.0	39.7	39.0	29.1	31.6	23.0
2000	138	50.0	39.2	38.4	28.8	31.2	22.8
2000	207	48.9	38.5	37.7	28.5	30.8	22.6
2250	69	53.9	41.5	40.8	30.1	32.8	23.6
2250	103	52.3	40.5	39.9	29.6	32.2	23.3
2250	138	51.3	40.0	39.2	29.3	31.9	23.2
2250	207	50.1	39.3	38.6	29.0	31.4	22.9
2500	69	55.1	42.2	41.5	30.5	33.4	23.9
2500	103	53.5	41.3	40.7	30.1	32.8	23.7
2500	138	52.4	40.6	40.0	29.7	32.4	23.4
2500	207	51.2	40.0	39.3	29.4	31.9	23.2

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - Triplexed - Single Circuit

25°C Earth Ambient

Total Watts/ft for 65°C - Copper Conductor - Concentric Strand

		60 Rho		90 Rho		120 Rho	
		75 LF	100 LF	75 LF	100 LF	75 LF	100 LF
Condr Size	Shield Res						
500	69	28.3	23.2	22.3	17.7	18.4	14.2
500	103	27.7	22.9	21.9	17.5	18.2	14.1
500	138	27.4	22.7	21.7	17.3	18.1	14.0
500	207	27.0	22.4	21.5	17.2	17.9	13.9
750	69	30.6	24.9	23.9	18.6	19.6	14.9
750	103	29.8	24.4	23.5	18.4	19.4	14.8
750	138	29.4	24.1	23.2	18.2	19.1	14.7
750	207	28.9	23.8	22.9	18.1	19.0	14.5
1000	69	32.8	26.3	25.4	19.6	20.7	15.6
1000	103	31.9	25.8	24.9	19.2	20.4	15.4
1000	138	31.4	25.4	24.5	19.1	20.1	15.3
1000	207	30.8	25.1	24.2	18.9	19.9	15.1
1250	69	34.5	27.4	26.5	20.2	21.5	16.0
1250	103	33.5	26.8	25.9	19.9	21.1	15.8
1250	138	32.9	26.4	25.5	19.7	20.9	15.7
1250	207	32.2	26.0	25.1	19.4	20.6	15.6
1500	69	35.9	28.3	27.4	20.7	22.2	16.4
1500	103	34.9	27.6	26.8	20.4	21.7	16.2
1500	138	34.2	27.3	26.4	20.2	21.5	16.0
1500	207	33.5	26.9	26.0	20.0	21.2	15.9
1750	69	37.2	29.1	28.2	21.2	22.7	16.7
1750	103	36.1	28.4	27.6	20.9	22.3	16.5
1750	138	35.4	28.0	27.2	20.6	22.0	16.4
1750	207	34.6	27.5	26.7	20.4	21.7	16.2
2000	69	38.3	29.7	28.9	21.6	23.2	17.0
2000	103	37.1	29.1	28.3	21.3	22.8	16.8
2000	138	36.4	28.6	27.8	21.0	22.5	16.6
2000	207	35.6	28.2	27.4	20.8	22.2	16.5
2250	69	39.3	30.3	29.5	22.0	23.7	17.2
2250	103	38.1	29.7	28.9	21.6	23.2	17.0
2250	138	37.3	29.2	28.4	21.4	23.0	16.9
2250	207	36.5	28.7	28.0	21.1	22.7	16.7
2500	69	40.2	30.8	30.1	22.3	24.1	17.5
2500	103	39.0	30.2	29.5	22.0	23.7	17.3
2500	138	38.2	29.7	29.0	21.7	23.4	17.1
2500	207	37.3	29.2	28.5	21.4	23.0	16.9

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1334

69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - Triplexed - Single Circuit

25°C Earth Ambient

Total Watts/ft for 50°C - Copper Conductor - Concentric Strand

		60 Rho		90 Rho		120 Rho	
		75 LF	100 LF	75 LF	100 LF	75 LF	100 LF
Condr Size	Shield Res						
500	69	17.7	14.7	13.9	11.1	11.4	8.9
500	103	17.3	14.4	13.7	11.0	11.3	8.9
500	138	17.1	14.3	13.5	10.9	11.2	8.8
500	207	16.9	14.2	13.4	10.8	11.1	8.7
750	69	19.2	15.7	14.9	11.7	12.2	9.4
750	103	18.7	15.4	14.6	11.6	11.9	9.3
750	138	18.4	15.2	14.4	11.5	11.9	9.3
750	207	18.1	15.0	14.2	11.4	11.7	9.2
1000	69	20.5	16.6	15.8	12.3	12.8	9.8
1000	103	20.0	16.2	15.4	12.1	12.6	9.7
1000	138	19.6	16.0	15.2	12.0	12.5	9.6
1000	207	19.3	15.8	15.0	11.9	12.3	9.5
1250	69	21.5	17.3	16.4	12.7	13.3	10.1
1250	103	21.0	16.9	16.1	12.5	13.0	9.9
1250	138	20.6	16.6	15.8	12.4	12.9	9.9
1250	207	20.1	16.4	15.6	12.3	12.7	9.8
1500	69	22.4	17.8	17.0	13.0	13.6	10.3
1500	103	21.8	17.4	16.6	12.8	13.4	10.2
1500	138	21.4	17.2	16.4	12.7	13.2	10.1
1500	207	20.9	16.9	16.1	12.6	13.0	10.0
1750	69	23.2	18.3	17.4	13.3	13.9	10.5
1750	103	22.5	17.9	17.1	13.1	13.7	10.4
1750	138	22.1	17.6	16.8	13.0	13.5	10.3
1750	207	21.6	17.3	16.5	12.8	13.4	10.2
2000	69	23.9	18.7	17.8	13.6	14.2	10.7
2000	103	23.2	18.3	17.5	13.4	14.0	10.5
2000	138	22.7	18.0	17.2	13.3	13.8	10.5
2000	207	22.2	17.7	16.9	13.1	13.6	10.4
2250	69	24.4	19.1	18.2	13.8	14.5	10.8
2250	103	23.7	18.7	17.8	13.6	14.2	10.7
2250	138	23.2	18.4	17.6	13.5	14.1	10.6
2250	207	22.7	18.1	17.2	13.3	13.9	10.5
2500	69	25.0	19.4	18.6	14.0	14.7	11.0
2500	103	24.2	19.0	18.2	13.8	14.4	10.8
2500	138	23.8	18.7	17.9	13.7	14.3	10.8
2500	207	23.2	18.4	17.6	13.5	14.1	10.7

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - Triplexed - Single Circuit

25°C Earth Ambient

Size	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	0.51	27.52	1.179	1.95	0.27	3.43	4.97
500	103	2.679	0.51	27.52	1.123	1.95	0.27	3.43	4.97
500	138	2.679	0.51	27.52	1.093	1.95	0.27	3.43	4.97
500	207	2.679	0.51	27.52	1.062	1.95	0.27	3.43	4.97
750	69	2.918	0.57	18.84	1.267	1.72	0.32	3.31	4.84
750	103	2.918	0.57	18.84	1.184	1.72	0.32	3.31	4.84
750	138	2.918	0.57	18.84	1.139	1.72	0.32	3.31	4.84
750	207	2.918	0.57	18.84	1.093	1.72	0.32	3.31	4.84
1000	69	3.107	0.63	14.64	1.343	1.56	0.30	3.23	4.76
1000	103	3.107	0.63	14.64	1.236	1.56	0.30	3.23	4.76
1000	138	3.107	0.63	14.64	1.178	1.56	0.30	3.23	4.76
1000	207	3.107	0.63	14.64	1.120	1.56	0.30	3.23	4.76
1250	69	3.240	0.68	12.22	1.407	1.45	0.28	3.17	4.70
1250	103	3.240	0.68	12.22	1.280	1.45	0.28	3.17	4.70
1250	138	3.240	0.68	12.22	1.211	1.45	0.28	3.17	4.70
1250	207	3.240	0.68	12.22	1.142	1.45	0.28	3.17	4.70
1500	69	3.360	0.72	10.68	1.463	1.36	0.27	3.11	4.65
1500	103	3.360	0.72	10.68	1.319	1.36	0.27	3.11	4.65
1500	138	3.360	0.72	10.68	1.240	1.36	0.27	3.11	4.65
1500	207	3.360	0.72	10.68	1.161	1.36	0.27	3.11	4.65
1750	69	3.470	0.76	9.61	1.511	1.29	0.26	3.07	4.60
1750	103	3.470	0.76	9.61	1.352	1.29	0.26	3.07	4.60
1750	138	3.470	0.76	9.61	1.265	1.29	0.26	3.07	4.60
1750	207	3.470	0.76	9.61	1.178	1.29	0.26	3.07	4.60
2000	69	3.573	0.80	8.81	1.555	1.22	0.26	3.03	4.56
2000	103	3.573	0.80	8.81	1.382	1.22	0.26	3.03	4.56
2000	138	3.573	0.80	8.81	1.288	1.22	0.26	3.03	4.56
2000	207	3.573	0.80	8.81	1.193	1.22	0.26	3.03	4.56
2250	69	3.668	0.83	8.26	1.588	1.17	0.25	2.99	4.52
2250	103	3.668	0.83	8.26	1.405	1.17	0.25	2.99	4.52
2250	138	3.668	0.83	8.26	1.305	1.17	0.25	2.99	4.52
2250	207	3.668	0.83	8.26	1.205	1.17	0.25	2.99	4.52
2500	69	3.759	0.86	7.79	1.622	1.13	0.24	2.96	4.49
2500	103	3.759	0.86	7.79	1.428	1.13	0.24	2.96	4.49
2500	138	3.759	0.86	7.79	1.323	1.13	0.24	2.96	4.49
2500	207	3.759	0.86	7.79	1.216	1.13	0.24	2.96	4.49

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1336

69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - Triplexed - Single Circuit

25°C Earth Ambient

Size	Res	OD	Wd	Rac	Qs	Ri	Rj	Re @ 90 Rho & loss factor 75%	100%
			80°C - Copper Conductor - Concentric Strand						
500	69	2.679	0.51	27.52	1.179	1.95	0.27	3.43	4.97
500	103	2.679	0.51	27.52	1.123	1.95	0.27	3.43	4.97
500	138	2.679	0.51	27.52	1.093	1.95	0.27	3.43	4.97
500	207	2.679	0.51	27.52	1.062	1.95	0.27	3.43	4.97
750	69	2.918	0.57	18.84	1.267	1.72	0.32	3.31	4.84
750	103	2.918	0.57	18.84	1.184	1.72	0.32	3.31	4.84
750	138	2.918	0.57	18.84	1.139	1.72	0.32	3.31	4.84
750	207	2.918	0.57	18.84	1.093	1.72	0.32	3.31	4.84
1000	69	3.107	0.63	14.64	1.343	1.56	0.30	3.23	4.76
1000	103	3.107	0.63	14.64	1.236	1.56	0.30	3.23	4.76
1000	138	3.107	0.63	14.64	1.178	1.56	0.30	3.23	4.76
1000	207	3.107	0.63	14.64	1.120	1.56	0.30	3.23	4.76
1250	69	3.240	0.68	12.22	1.407	1.45	0.28	3.17	4.70
1250	103	3.240	0.68	12.22	1.280	1.45	0.28	3.17	4.70
1250	138	3.240	0.68	12.22	1.211	1.45	0.28	3.17	4.70
1250	207	3.240	0.68	12.22	1.142	1.45	0.28	3.17	4.70
1500	69	3.360	0.72	10.68	1.463	1.36	0.27	3.11	4.65
1500	103	3.360	0.72	10.68	1.319	1.36	0.27	3.11	4.65
1500	138	3.360	0.72	10.68	1.240	1.36	0.27	3.11	4.65
1500	207	3.360	0.72	10.68	1.161	1.36	0.27	3.11	4.65
1750	69	3.470	0.76	9.61	1.511	1.29	0.26	3.07	4.60
1750	103	3.470	0.76	9.61	1.352	1.29	0.26	3.07	4.60
1750	138	3.470	0.76	9.61	1.265	1.29	0.26	3.07	4.60
1750	207	3.470	0.76	9.61	1.178	1.29	0.26	3.07	4.60
2000	69	3.573	0.80	8.81	1.555	1.22	0.26	3.03	4.56
2000	103	3.573	0.80	8.81	1.382	1.22	0.26	3.03	4.56
2000	138	3.573	0.80	8.81	1.288	1.22	0.26	3.03	4.56
2000	207	3.573	0.80	8.81	1.193	1.22	0.26	3.03	4.56
2250	69	3.668	0.83	8.26	1.588	1.17	0.25	2.99	4.52
2250	103	3.668	0.83	8.26	1.405	1.17	0.25	2.99	4.52
2250	138	3.668	0.83	8.26	1.305	1.17	0.25	2.99	4.52
2250	207	3.668	0.83	8.26	1.205	1.17	0.25	2.99	4.52
2500	69	3.759	0.86	7.79	1.622	1.13	0.24	2.96	4.49
2500	103	3.759	0.86	7.79	1.428	1.13	0.24	2.96	4.49
2500	138	3.759	0.86	7.79	1.323	1.13	0.24	2.96	4.49
2500	207	3.759	0.86	7.79	1.216	1.13	0.24	2.96	4.49

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - Triplexed - Single Circuit

25°C Earth Ambient

Size	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	0.51	27.52	1.179	1.95	0.27	3.43	4.97
500	103	2.679	0.51	27.52	1.123	1.95	0.27	3.43	4.97
500	138	2.679	0.51	27.52	1.093	1.95	0.27	3.43	4.97
500	207	2.679	0.51	27.52	1.062	1.95	0.27	3.43	4.97
750	69	2.918	0.57	18.84	1.267	1.72	0.32	3.31	4.84
750	103	2.918	0.57	18.84	1.184	1.72	0.32	3.31	4.84
750	138	2.918	0.57	18.84	1.139	1.72	0.32	3.31	4.84
750	207	2.918	0.57	18.84	1.093	1.72	0.32	3.31	4.84
1000	69	3.107	0.63	14.64	1.343	1.56	0.30	3.23	4.76
1000	103	3.107	0.63	14.64	1.236	1.56	0.30	3.23	4.76
1000	138	3.107	0.63	14.64	1.178	1.56	0.30	3.23	4.76
1000	207	3.107	0.63	14.64	1.120	1.56	0.30	3.23	4.76
1250	69	3.240	0.68	12.22	1.407	1.45	0.28	3.17	4.70
1250	103	3.240	0.68	12.22	1.280	1.45	0.28	3.17	4.70
1250	138	3.240	0.68	12.22	1.211	1.45	0.28	3.17	4.70
1250	207	3.240	0.68	12.22	1.142	1.45	0.28	3.17	4.70
1500	69	3.360	0.72	10.68	1.463	1.36	0.27	3.11	4.65
1500	103	3.360	0.72	10.68	1.319	1.36	0.27	3.11	4.65
1500	138	3.360	0.72	10.68	1.240	1.36	0.27	3.11	4.65
1500	207	3.360	0.72	10.68	1.161	1.36	0.27	3.11	4.65
1750	69	3.470	0.76	9.61	1.511	1.29	0.26	3.07	4.60
1750	103	3.470	0.76	9.61	1.352	1.29	0.26	3.07	4.60
1750	138	3.470	0.76	9.61	1.265	1.29	0.26	3.07	4.60
1750	207	3.470	0.76	9.61	1.178	1.29	0.26	3.07	4.60
2000	69	3.573	0.80	8.81	1.555	1.22	0.26	3.03	4.56
2000	103	3.573	0.80	8.81	1.382	1.22	0.26	3.03	4.56
2000	138	3.573	0.80	8.81	1.288	1.22	0.26	3.03	4.56
2000	207	3.573	0.80	8.81	1.193	1.22	0.26	3.03	4.56
2250	69	3.668	0.83	8.26	1.588	1.17	0.25	2.99	4.52
2250	103	3.668	0.83	8.26	1.405	1.17	0.25	2.99	4.52
2250	138	3.668	0.83	8.26	1.305	1.17	0.25	2.99	4.52
2250	207	3.668	0.83	8.26	1.205	1.17	0.25	2.99	4.52
2500	69	3.759	0.86	7.79	1.622	1.13	0.24	2.96	4.49
2500	103	3.759	0.86	7.79	1.428	1.13	0.24	2.96	4.49
2500	138	3.759	0.86	7.79	1.323	1.13	0.24	2.96	4.49
2500	207	3.759	0.86	7.79	1.216	1.13	0.24	2.96	4.49

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - Triplexed - Single Circuit

25°C Earth Ambient

Size	Res	OD	Wd	Rac	Qs	Ri	Rj	Re @ 90 Rho & loss factor 75%	Re @ 90 Rho & loss factor 100%
				50°C - Copper Conductor - Concentric Strand					
500	69	2.679	0.51	27.52	1.179	1.95	0.27	3.43	4.97
500	103	2.679	0.51	27.52	1.123	1.95	0.27	3.43	4.97
500	138	2.679	0.51	27.52	1.093	1.95	0.27	3.43	4.97
500	207	2.679	0.51	27.52	1.062	1.95	0.27	3.43	4.97
750	69	2.918	0.57	18.84	1.267	1.72	0.32	3.31	4.84
750	103	2.918	0.57	18.84	1.184	1.72	0.32	3.31	4.84
750	138	2.918	0.57	18.84	1.139	1.72	0.32	3.31	4.84
750	207	2.918	0.57	18.84	1.093	1.72	0.32	3.31	4.84
1000	69	3.107	0.63	14.64	1.343	1.56	0.30	3.23	4.76
1000	103	3.107	0.63	14.64	1.236	1.56	0.30	3.23	4.76
1000	138	3.107	0.63	14.64	1.178	1.56	0.30	3.23	4.76
1000	207	3.107	0.63	14.64	1.120	1.56	0.30	3.23	4.76
1250	69	3.240	0.68	12.22	1.407	1.45	0.28	3.17	4.70
1250	103	3.240	0.68	12.22	1.280	1.45	0.28	3.17	4.70
1250	138	3.240	0.68	12.22	1.211	1.45	0.28	3.17	4.70
1250	207	3.240	0.68	12.22	1.142	1.45	0.28	3.17	4.70
1500	69	3.360	0.72	10.68	1.463	1.36	0.27	3.11	4.65
1500	103	3.360	0.72	10.68	1.319	1.36	0.27	3.11	4.65
1500	138	3.360	0.72	10.68	1.240	1.36	0.27	3.11	4.65
1500	207	3.360	0.72	10.68	1.161	1.36	0.27	3.11	4.65
1750	69	3.470	0.76	9.61	1.511	1.29	0.26	3.07	4.60
1750	103	3.470	0.76	9.61	1.352	1.29	0.26	3.07	4.60
1750	138	3.470	0.76	9.61	1.265	1.29	0.26	3.07	4.60
1750	207	3.470	0.76	9.61	1.178	1.29	0.26	3.07	4.60
2000	69	3.573	0.80	8.81	1.555	1.22	0.26	3.03	4.56
2000	103	3.573	0.80	8.81	1.382	1.22	0.26	3.03	4.56
2000	138	3.573	0.80	8.81	1.288	1.22	0.26	3.03	4.56
2000	207	3.573	0.80	8.81	1.193	1.22	0.26	3.03	4.56
2250	69	3.668	0.83	8.26	1.588	1.17	0.25	2.99	4.52
2250	103	3.668	0.83	8.26	1.405	1.17	0.25	2.99	4.52
2250	138	3.668	0.83	8.26	1.305	1.17	0.25	2.99	4.52
2250	207	3.668	0.83	8.26	1.205	1.17	0.25	2.99	4.52
2500	69	3.759	0.86	7.79	1.622	1.13	0.24	2.96	4.49
2500	103	3.759	0.86	7.79	1.428	1.13	0.24	2.96	4.49
2500	138	3.759	0.86	7.79	1.323	1.13	0.24	2.96	4.49
2500	207	3.759	0.86	7.79	1.216	1.13	0.24	2.96	4.49

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - Triplexed - Double Circuit

25°C Earth Ambient

90°C - Copper Conductor - Concentric Strand

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 .0150 pf & Rho 60	90	120
						75% LF							
500	69	598	68	32.7	519	73	24.9	463	77	20.1	3.2	4.4	5.7
500	103	608	67	32.2	528	73	24.6	472	76	19.9	3.2	4.4	5.7
500	138	614	67	31.9	534	72	24.4	477	76	19.9	3.2	4.4	5.7
500	207	620	66	31.6	539	72	24.3	483	76	19.8	3.2	4.4	5.7
750	69	719	69	31.9	619	75	24.1	551	78	19.3	3.5	4.9	6.3
750	103	736	69	31.3	636	74	23.8	566	77	19.1	3.5	4.9	6.3
750	138	747	68	31.0	646	74	23.6	575	77	19.0	3.5	4.9	6.3
750	207	757	68	30.7	656	73	23.3	585	77	18.9	3.5	4.9	6.3
1000	69	813	71	31.6	697	76	23.6	617	79	18.8	3.7	5.3	6.8
1000	103	838	70	31.0	720	75	23.3	639	79	18.6	3.7	5.3	6.8
1000	138	853	70	30.6	734	75	23.1	652	78	18.5	3.7	5.3	6.8
1000	207	869	69	30.2	749	74	22.9	666	78	18.4	3.7	5.3	6.8
1250	69	885	72	31.5	755	77	23.4	667	80	18.6	3.9	5.6	7.2
1250	103	918	71	30.9	785	76	23.0	695	79	18.3	3.9	5.6	7.2
1250	138	937	71	30.5	803	76	22.8	711	79	18.2	3.9	5.6	7.2
1250	207	958	70	30.0	823	75	22.6	729	79	18.1	3.9	5.6	7.2
1500	69	943	73	31.4	802	78	23.1	706	81	18.3	4.1	5.9	7.6
1500	103	982	72	30.7	837	77	22.8	739	80	18.1	4.1	5.9	7.6
1500	138	1005	72	30.3	859	77	22.5	758	80	17.9	4.1	5.9	7.6
1500	207	1030	71	29.8	882	76	22.3	780	79	17.8	4.1	5.9	7.6
1750	69	989	74	31.1	839	79	22.8	737	81	18.0	4.3	6.1	7.9
1750	103	1034	73	30.5	879	78	22.5	774	81	17.8	4.3	6.1	7.9
1750	138	1061	73	30.0	904	77	22.3	797	80	17.6	4.3	6.1	7.9
1750	207	1090	72	29.6	931	77	22.0	822	80	17.5	4.3	6.1	7.9
2000	69	1029	75	30.9	871	79	22.6	764	82	17.8	4.5	6.4	8.2
2000	103	1079	74	30.2	916	78	22.2	805	81	17.5	4.5	6.4	8.2
2000	138	1110	73	29.8	943	78	22.0	830	81	17.4	4.5	6.4	8.2
2000	207	1143	72	29.4	974	77	21.8	858	80	17.2	4.5	6.4	8.2
2250	69	1061	75	30.7	895	80	22.4	784	82	17.5	4.6	6.6	8.5
2250	103	1115	74	30.1	944	79	22.0	828	81	17.3	4.6	6.6	8.5
2250	138	1148	74	29.6	974	78	21.8	855	81	17.2	4.6	6.6	8.5
2250	207	1184	73	29.1	1007	78	21.5	886	81	17.0	4.6	6.6	8.5
2500	69	1090	76	30.5	918	80	22.1	803	82	17.3	4.7	6.8	8.8
2500	103	1148	75	29.8	970	79	21.8	850	82	17.1	4.7	6.8	8.8
2500	138	1184	74	29.4	1002	79	21.5	879	81	17.0	4.7	6.8	8.8
2500	207	1223	73	28.9	1038	78	21.3	912	81	16.8	4.7	6.8	8.8

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1340

69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - Triplexed - Double Circuit

25°C Earth Ambient

90°C - Copper Conductor - Concentric Strand

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 .0150 pf & Rho 60	90	120
						100% LF							
500	69	524	73	25.4	445	78	18.7	391	80	14.7	3.2	4.4	5.7
500	103	534	72	25.2	454	77	18.5	399	80	14.6	3.2	4.4	5.7
500	138	539	72	25.0	459	77	18.4	404	80	14.6	3.2	4.4	5.7
500	207	545	72	24.8	464	77	18.3	409	80	14.6	3.2	4.4	5.7
750	69	625	74	24.5	527	79	17.8	462	82	14.0	3.5	4.9	6.3
750	103	642	74	24.2	543	78	17.7	476	81	13.9	3.5	4.9	6.3
750	138	652	73	24.0	551	78	17.6	484	81	13.9	3.5	4.9	6.3
750	207	662	73	23.8	561	78	17.5	493	81	13.8	3.5	4.9	6.3
1000	69	702	76	23.9	589	80	17.3	514	82	13.6	3.7	5.3	6.8
1000	103	726	75	23.6	610	80	17.1	534	82	13.5	3.7	5.3	6.8
1000	138	740	75	23.4	623	79	17.0	545	82	13.4	3.7	5.3	6.8
1000	207	755	74	23.2	637	79	16.9	558	81	13.3	3.7	5.3	6.8
1250	69	761	77	23.7	636	81	17.0	554	83	13.2	3.9	5.6	7.2
1250	103	791	76	23.3	662	80	16.8	578	83	13.1	3.9	5.6	7.2
1250	138	809	76	23.1	679	80	16.7	592	82	13.1	3.9	5.6	7.2
1250	207	828	75	22.9	696	80	16.6	608	82	13.0	3.9	5.6	7.2
1500	69	806	78	23.4	672	82	16.7	584	84	13.0	4.1	5.9	7.6
1500	103	842	77	23.0	703	81	16.5	612	83	12.9	4.1	5.9	7.6
1500	138	864	77	22.8	723	81	16.4	629	83	12.8	4.1	5.9	7.6
1500	207	887	76	22.6	743	80	16.3	648	83	12.8	4.1	5.9	7.6
1750	69	843	79	23.1	701	82	16.4	608	84	12.8	4.3	6.1	7.9
1750	103	884	78	22.7	736	82	16.2	640	84	12.6	4.3	6.1	7.9
1750	138	909	77	22.5	758	81	16.2	659	83	12.6	4.3	6.1	7.9
1750	207	936	77	22.2	782	81	16.0	681	83	12.5	4.3	6.1	7.9
2000	69	875	79	22.8	725	83	16.2	628	84	12.5	4.5	6.4	8.2
2000	103	920	78	22.4	765	82	16.0	663	84	12.4	4.5	6.4	8.2
2000	138	948	78	22.2	789	82	15.9	685	84	12.3	4.5	6.4	8.2
2000	207	978	77	22.0	816	81	15.8	709	83	12.3	4.5	6.4	8.2
2250	69	899	80	22.5	743	83	15.9	643	85	12.3	4.6	6.6	8.5
2250	103	947	79	22.2	786	82	15.7	680	84	12.2	4.6	6.6	8.5
2250	138	978	78	21.9	812	82	15.6	704	84	12.1	4.6	6.6	8.5
2250	207	1011	78	21.7	841	81	15.5	730	84	12.1	4.6	6.6	8.5
2500	69	921	80	22.2	761	83	15.7	657	85	12.1	4.7	6.8	8.8
2500	103	973	79	21.9	806	83	15.6	697	84	12.0	4.7	6.8	8.8
2500	138	1006	79	21.7	834	82	15.4	722	84	12.0	4.7	6.8	8.8
2500	207	1042	78	21.4	866	82	15.3	750	84	11.9	4.7	6.8	8.8

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - Triplexed - Double Circuit

25°C Earth Ambient

80°C - Copper Conductor - Concentric Strand

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 .0150 pf & Rho 60	90	120
						75% LF							
500	69	554	61	27.7	479	66	21.0	427	69	17.0	3.2	4.4	5.7
500	103	564	61	27.2	489	66	20.8	436	69	16.8	3.2	4.4	5.7
500	138	569	61	27.0	494	65	20.7	441	68	16.7	3.2	4.4	5.7
500	207	575	60	26.8	500	65	20.5	446	68	16.6	3.2	4.4	5.7
750	69	664	63	27.1	571	67	20.4	506	70	16.3	3.5	4.9	6.3
750	103	681	62	26.6	587	67	20.0	521	70	16.1	3.5	4.9	6.3
750	138	691	62	26.2	596	67	19.9	530	69	16.0	3.5	4.9	6.3
750	207	702	61	25.9	606	66	19.7	539	69	15.9	3.5	4.9	6.3
1000	69	749	64	26.8	640	69	20.0	566	71	15.9	3.7	5.3	6.8
1000	103	774	64	26.3	663	68	19.7	587	71	15.7	3.7	5.3	6.8
1000	138	788	63	26.0	677	68	19.5	599	70	15.6	3.7	5.3	6.8
1000	207	804	63	25.6	691	67	19.3	612	70	15.4	3.7	5.3	6.8
1250	69	815	65	26.7	693	69	19.8	610	72	15.6	3.9	5.6	7.2
1250	103	846	65	26.1	722	69	19.5	636	71	15.5	3.9	5.6	7.2
1250	138	864	64	25.8	739	68	19.2	652	71	15.3	3.9	5.6	7.2
1250	207	884	64	25.4	757	68	19.0	669	71	15.2	3.9	5.6	7.2
1500	69	866	66	26.6	734	70	19.5	644	72	15.4	4.1	5.9	7.6
1500	103	903	65	26.0	768	69	19.2	675	72	15.2	4.1	5.9	7.6
1500	138	925	65	25.6	788	69	19.0	694	72	15.1	4.1	5.9	7.6
1500	207	950	64	25.2	811	69	18.8	714	71	15.0	4.1	5.9	7.6
1750	69	908	67	26.4	767	71	19.3	672	73	15.2	4.3	6.1	7.9
1750	103	950	66	25.8	805	70	19.0	707	72	15.0	4.3	6.1	7.9
1750	138	976	66	25.5	829	70	18.8	728	72	14.8	4.3	6.1	7.9
1750	207	1004	65	25.0	854	69	18.6	751	72	14.7	4.3	6.1	7.9
2000	69	943	68	26.2	795	71	19.1	695	73	15.0	4.5	6.4	8.2
2000	103	991	67	25.6	837	70	18.7	733	73	14.8	4.5	6.4	8.2
2000	138	1020	66	25.3	864	70	18.6	757	72	14.6	4.5	6.4	8.2
2000	207	1051	65	24.8	893	70	18.3	784	72	14.5	4.5	6.4	8.2
2250	69	971	68	26.0	816	72	18.8	712	74	14.8	4.6	6.6	8.5
2250	103	1022	67	25.4	862	71	18.6	754	73	14.6	4.6	6.6	8.5
2250	138	1054	67	25.1	890	70	18.4	779	73	14.4	4.6	6.6	8.5
2250	207	1088	66	24.6	922	70	18.1	808	72	14.3	4.6	6.6	8.5
2500	69	997	68	25.7	836	72	18.6	729	74	14.5	4.7	6.8	8.8
2500	103	1052	68	25.2	885	71	18.3	773	73	14.3	4.7	6.8	8.8
2500	138	1086	67	24.8	916	71	18.1	800	73	14.3	4.7	6.8	8.8
2500	207	1124	66	24.4	950	70	17.9	831	73	14.2	4.7	6.8	8.8

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1342

69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - Triplexed - Double Circuit

25°C Earth Ambient

80°C - Copper Conductor - Concentric Strand

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 .0150 pf & Rho 60	90	120
						100% LF							
500	69	486	66	21.6	411	70	15.8	361	72	12.5	3.2	4.4	5.7
500	103	495	65	21.3	420	69	15.7	369	72	12.4	3.2	4.4	5.7
500	138	500	65	21.2	425	69	15.6	373	72	12.4	3.2	4.4	5.7
500	207	506	65	21.0	430	69	15.5	378	72	12.3	3.2	4.4	5.7
750	69	577	67	20.8	486	71	15.1	424	73	11.9	3.5	4.9	6.3
750	103	594	67	20.5	500	70	15.0	438	73	11.8	3.5	4.9	6.3
750	138	603	66	20.3	509	70	14.9	446	72	11.7	3.5	4.9	6.3
750	207	613	66	20.1	518	70	14.8	454	72	11.7	3.5	4.9	6.3
1000	69	647	68	20.4	541	72	14.7	471	74	11.5	3.7	5.3	6.8
1000	103	670	68	20.1	562	71	14.6	490	73	11.4	3.7	5.3	6.8
1000	138	684	67	19.8	574	71	14.4	501	73	11.3	3.7	5.3	6.8
1000	207	698	67	19.7	587	71	14.3	513	73	11.3	3.7	5.3	6.8
1250	69	700	69	20.1	583	73	14.4	506	74	11.2	3.9	5.6	7.2
1250	103	728	69	19.8	608	72	14.3	529	74	11.1	3.9	5.6	7.2
1250	138	746	68	19.6	624	72	14.2	543	74	11.1	3.9	5.6	7.2
1250	207	765	68	19.4	641	71	14.0	558	73	11.0	3.9	5.6	7.2
1500	69	741	70	19.8	615	73	14.2	533	75	11.0	4.1	5.9	7.6
1500	103	775	69	19.6	645	73	14.0	559	74	10.9	4.1	5.9	7.6
1500	138	795	69	19.3	663	72	13.9	576	74	10.9	4.1	5.9	7.6
1500	207	818	68	19.1	683	72	13.8	594	74	10.8	4.1	5.9	7.6
1750	69	773	71	19.6	640	74	13.9	554	75	10.8	4.3	6.1	7.9
1750	103	812	70	19.3	674	73	13.8	583	75	10.7	4.3	6.1	7.9
1750	138	836	69	19.1	695	73	13.7	602	75	10.7	4.3	6.1	7.9
1750	207	862	69	18.9	718	72	13.6	623	74	10.6	4.3	6.1	7.9
2000	69	801	71	19.3	662	74	13.7	571	75	10.6	4.5	6.4	8.2
2000	103	844	70	19.0	699	73	13.5	604	75	10.5	4.5	6.4	8.2
2000	138	870	70	18.9	722	73	13.5	624	75	10.4	4.5	6.4	8.2
2000	207	900	69	18.6	748	73	13.3	647	75	10.4	4.5	6.4	8.2
2250	69	822	71	19.1	678	74	13.5	584	76	10.4	4.6	6.6	8.5
2250	103	868	71	18.8	718	74	13.4	619	75	10.4	4.6	6.6	8.5
2250	138	897	70	18.6	743	73	13.3	641	75	10.3	4.6	6.6	8.5
2250	207	929	70	18.4	771	73	13.1	666	75	10.2	4.6	6.6	8.5
2500	69	842	72	18.9	693	74	13.3	596	76	10.3	4.7	6.8	8.8
2500	103	891	71	18.6	735	74	13.2	633	76	10.2	4.7	6.8	8.8
2500	138	922	71	18.4	762	74	13.1	657	75	10.1	4.7	6.8	8.8
2500	207	957	70	18.2	792	73	13.0	684	75	10.1	4.7	6.8	8.8

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - Triplexed - Double Circuit

25°C Earth Ambient

65°C - Copper Conductor - Concentric Strand

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 .0150 pf & Rho 60	90	120
						75% LF							
500	69	476	52	20.1	409	55	15.3	362	57	12.2	3.2	4.4	5.7
500	103	485	52	19.9	418	55	15.1	370	57	12.1	3.2	4.4	5.7
500	138	490	51	19.7	423	55	15.0	375	57	12.0	3.2	4.4	5.7
500	207	495	51	19.4	428	55	14.8	380	57	12.0	3.2	4.4	5.7
750	69	567	53	19.7	484	56	14.8	427	58	11.7	3.5	4.9	6.3
750	103	583	53	19.3	499	56	14.5	440	58	11.6	3.5	4.9	6.3
750	138	592	52	19.1	508	56	14.4	448	58	11.5	3.5	4.9	6.3
750	207	602	52	18.8	517	55	14.3	457	57	11.5	3.5	4.9	6.3
1000	69	638	54	19.4	541	57	14.4	474	59	11.5	3.7	5.3	6.8
1000	103	660	53	19.1	561	57	14.3	493	59	11.3	3.7	5.3	6.8
1000	138	673	53	18.8	574	56	14.1	504	58	11.2	3.7	5.3	6.8
1000	207	687	53	18.6	587	56	13.9	516	58	11.1	3.7	5.3	6.8
1250	69	691	55	19.4	583	58	14.3	509	60	11.2	3.9	5.6	7.2
1250	103	719	54	18.9	609	57	14.0	532	59	11.1	3.9	5.6	7.2
1250	138	736	54	18.7	624	57	13.9	546	59	11.0	3.9	5.6	7.2
1250	207	754	53	18.4	641	57	13.7	562	59	10.9	3.9	5.6	7.2
1500	69	732	55	19.3	616	58	14.1	536	60	11.0	4.1	5.9	7.6
1500	103	765	55	18.8	645	58	13.8	563	60	10.9	4.1	5.9	7.6
1500	138	785	54	18.6	664	57	13.7	579	59	10.8	4.1	5.9	7.6
1500	207	808	54	18.3	684	57	13.5	598	59	10.7	4.1	5.9	7.6
1750	69	766	56	19.1	642	59	13.9	557	60	10.9	4.3	6.1	7.9
1750	103	804	55	18.7	676	58	13.7	588	60	10.8	4.3	6.1	7.9
1750	138	827	55	18.5	697	58	13.5	606	60	10.6	4.3	6.1	7.9
1750	207	853	54	18.1	720	58	13.4	628	59	10.5	4.3	6.1	7.9
2000	69	794	56	19.0	663	59	13.7	574	61	10.7	4.5	6.4	8.2
2000	103	836	56	18.5	700	59	13.5	607	60	10.6	4.5	6.4	8.2
2000	138	862	55	18.3	723	58	13.3	628	60	10.5	4.5	6.4	8.2
2000	207	891	55	18.0	749	58	13.2	652	60	10.4	4.5	6.4	8.2
2250	69	816	57	18.8	680	59	13.6	587	61	10.6	4.6	6.6	8.5
2250	103	861	56	18.4	719	59	13.3	623	60	10.4	4.6	6.6	8.5
2250	138	889	56	18.1	745	58	13.2	645	60	10.3	4.6	6.6	8.5
2250	207	921	55	17.8	773	58	13.1	671	60	10.2	4.6	6.6	8.5
2500	69	836	57	18.6	695	60	13.4	599	61	10.4	4.7	6.8	8.8
2500	103	885	56	18.2	737	59	13.2	637	61	10.2	4.7	6.8	8.8
2500	138	915	56	18.0	764	59	13.1	661	60	10.2	4.7	6.8	8.8
2500	207	949	55	17.7	795	58	12.9	688	60	10.1	4.7	6.8	8.8

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1344

69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - Triplexed - Double Circuit

25°C Earth Ambient

65°C - Copper Conductor - Concentric Strand

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 .0150 pf & Rho 60	90	120
						100% LF							
500	69	417	55	15.8	351	58	11.6	306	60	9.2	3.2	4.4	5.7
500	103	425	55	15.5	359	58	11.5	313	59	9.1	3.2	4.4	5.7
500	138	430	54	15.5	363	57	11.4	317	59	9.1	3.2	4.4	5.7
500	207	436	54	15.4	368	57	11.3	322	59	9.0	3.2	4.4	5.7
750	69	493	56	15.2	412	59	11.1	358	60	8.7	3.5	4.9	6.3
750	103	508	56	15.0	425	58	11.0	370	60	8.6	3.5	4.9	6.3
750	138	517	55	14.8	433	58	10.9	377	60	8.6	3.5	4.9	6.3
750	207	526	55	14.7	442	58	10.8	385	60	8.5	3.5	4.9	6.3
1000	69	550	57	14.9	457	59	10.7	395	61	8.4	3.7	5.3	6.8
1000	103	571	56	14.6	476	59	10.6	412	61	8.3	3.7	5.3	6.8
1000	138	583	56	14.5	487	59	10.5	421	60	8.3	3.7	5.3	6.8
1000	207	597	56	14.3	499	59	10.5	432	60	8.2	3.7	5.3	6.8
1250	69	593	58	14.7	490	60	10.5	422	61	8.2	3.9	5.6	7.2
1250	103	619	57	14.5	513	60	10.4	442	61	8.1	3.9	5.6	7.2
1250	138	635	57	14.3	527	59	10.3	455	61	8.1	3.9	5.6	7.2
1250	207	652	56	14.2	542	59	10.3	468	61	8.0	3.9	5.6	7.2
1500	69	626	58	14.5	515	60	10.3	443	62	8.0	4.1	5.9	7.6
1500	103	656	58	14.3	542	60	10.2	466	61	8.0	4.1	5.9	7.6
1500	138	675	57	14.1	558	60	10.2	480	61	8.0	4.1	5.9	7.6
1500	207	696	57	14.0	576	59	10.1	497	61	7.9	4.1	5.9	7.6
1750	69	652	58	14.3	536	61	10.1	459	62	7.9	4.3	6.1	7.9
1750	103	687	58	14.1	565	60	10.1	485	62	7.8	4.3	6.1	7.9
1750	138	708	58	13.9	584	60	10.0	501	61	7.8	4.3	6.1	7.9
1750	207	732	57	13.8	605	60	9.9	520	61	7.7	4.3	6.1	7.9
2000	69	674	59	14.1	552	61	10.0	472	62	7.7	4.5	6.4	8.2
2000	103	712	58	13.9	584	61	9.9	500	62	7.7	4.5	6.4	8.2
2000	138	736	58	13.7	605	60	9.8	518	62	7.6	4.5	6.4	8.2
2000	207	762	58	13.6	628	60	9.8	538	61	7.6	4.5	6.4	8.2
2250	69	691	59	13.9	564	61	9.8	481	62	7.6	4.6	6.6	8.5
2250	103	731	59	13.7	599	61	9.8	511	62	7.5	4.6	6.6	8.5
2250	138	757	58	13.6	621	60	9.6	531	62	7.5	4.6	6.6	8.5
2250	207	786	58	13.5	646	60	9.6	553	61	7.5	4.6	6.6	8.5
2500	69	706	59	13.8	575	61	9.7	490	62	7.5	4.7	6.8	8.8
2500	103	750	59	13.6	612	61	9.6	522	62	7.4	4.7	6.8	8.8
2500	138	777	59	13.4	636	61	9.5	542	62	7.4	4.7	6.8	8.8
2500	207	808	58	13.3	663	60	9.5	566	62	7.4	4.7	6.8	8.8

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - Triplexed - Double Circuit

25°C Earth Ambient

50°C - Copper Conductor - Concentric Strand

		---- 60 Rho---			---- 90 Rho---			----120 Rho---			delta Td for .0150 pf & Rho		
		Amps	Interface Temp °C	Flux w/ft²	Amps	Interface Temp °C	Flux w/ft²	Amps	Interface Temp °C	Flux w/ft²	60	90	120
Condr Size	Shield Res												
						75% LF							
500	69	373	42	12.6	317	44	9.4	276	46	7.5	3.2	4.4	5.7
500	103	381	42	12.4	324	44	9.3	283	46	7.5	3.2	4.4	5.7
500	138	385	42	12.2	328	44	9.3	287	46	7.4	3.2	4.4	5.7
500	207	390	42	12.1	332	44	9.2	291	45	7.4	3.2	4.4	5.7
750	69	442	43	12.2	372	45	9.1	322	46	7.2	3.5	4.9	6.3
750	103	455	43	12.0	384	45	9.0	333	46	7.1	3.5	4.9	6.3
750	138	463	43	11.9	391	45	8.9	340	46	7.0	3.5	4.9	6.3
750	207	471	42	11.7	399	45	8.8	347	46	7.0	3.5	4.9	6.3
1000	69	494	44	12.1	412	46	8.8	355	47	7.0	3.7	5.3	6.8
1000	103	512	43	11.9	429	45	8.8	370	47	6.9	3.7	5.3	6.8
1000	138	523	43	11.7	439	45	8.7	379	46	6.8	3.7	5.3	6.8
1000	207	535	43	11.5	450	45	8.6	389	46	6.7	3.7	5.3	6.8
1250	69	532	44	12.0	441	46	8.8	378	47	6.8	3.9	5.6	7.2
1250	103	555	44	11.7	462	46	8.6	396	47	6.8	3.9	5.6	7.2
1250	138	569	44	11.6	474	46	8.5	407	47	6.7	3.9	5.6	7.2
1250	207	585	43	11.4	488	45	8.4	420	47	6.6	3.9	5.6	7.2
1500	69	562	45	11.9	464	46	8.6	395	47	6.7	4.1	5.9	7.6
1500	103	589	44	11.7	487	46	8.5	416	47	6.6	4.1	5.9	7.6
1500	138	605	44	11.5	502	46	8.4	429	47	6.5	4.1	5.9	7.6
1500	207	624	44	11.3	519	46	8.3	444	47	6.5	4.1	5.9	7.6
1750	69	586	45	11.8	481	47	8.5	408	48	6.5	4.3	6.1	7.9
1750	103	617	44	11.6	508	46	8.3	431	47	6.5	4.3	6.1	7.9
1750	138	636	44	11.4	525	46	8.3	446	47	6.5	4.3	6.1	7.9
1750	207	657	44	11.2	543	46	8.2	463	47	6.4	4.3	6.1	7.9
2000	69	606	45	11.7	495	47	8.4	418	48	6.4	4.5	6.4	8.2
2000	103	639	45	11.5	524	46	8.2	443	48	6.3	4.5	6.4	8.2
2000	138	660	45	11.3	543	46	8.2	460	47	6.3	4.5	6.4	8.2
2000	207	684	44	11.1	563	46	8.1	478	47	6.3	4.5	6.4	8.2
2250	69	621	45	11.6	505	47	8.2	425	48	6.3	4.6	6.6	8.5
2250	103	657	45	11.4	537	47	8.1	452	48	6.2	4.6	6.6	8.5
2250	138	679	45	11.2	556	46	8.0	470	48	6.2	4.6	6.6	8.5
2250	207	705	44	11.0	579	46	7.9	489	47	6.2	4.6	6.6	8.5
2500	69	635	46	11.5	515	47	8.1	432	48	6.2	4.7	6.8	8.8
2500	103	673	45	11.2	548	47	8.0	461	48	6.1	4.7	6.8	8.8
2500	138	698	45	11.1	569	47	7.9	479	48	6.1	4.7	6.8	8.8
2500	207	725	45	10.9	593	46	7.8	500	47	6.0	4.7	6.8	8.8

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1346

69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - Triplexed - Double Circuit

25°C Earth Ambient

50°C - Copper Conductor - Concentric Strand

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 .0150 pf & Rho 60	90	120
						100% LF							
500	69	326	44	10.0	271	46	7.3	233	47	5.7	3.2	4.4	5.7
500	103	334	44	9.8	278	46	7.2	239	47	5.7	3.2	4.4	5.7
500	138	338	44	9.7	282	46	7.2	243	47	5.7	3.2	4.4	5.7
500	207	343	44	9.7	286	46	7.2	247	47	5.7	3.2	4.4	5.7
750	69	384	45	9.6	316	46	6.9	270	47	5.4	3.5	4.9	6.3
750	103	396	45	9.4	327	46	6.8	280	47	5.4	3.5	4.9	6.3
750	138	403	44	9.3	333	46	6.8	285	47	5.4	3.5	4.9	6.3
750	207	411	44	9.2	341	46	6.8	292	47	5.4	3.5	4.9	6.3
1000	69	426	45	9.4	348	47	6.7	295	48	5.3	3.7	5.3	6.8
1000	103	443	45	9.2	363	47	6.7	308	48	5.2	3.7	5.3	6.8
1000	138	453	45	9.1	372	47	6.7	316	48	5.2	3.7	5.3	6.8
1000	207	465	45	9.1	382	46	6.6	325	47	5.2	3.7	5.3	6.8
1250	69	456	46	9.2	371	47	6.6	313	48	5.1	3.9	5.6	7.2
1250	103	478	45	9.1	389	47	6.5	329	48	5.1	3.9	5.6	7.2
1250	138	491	45	9.0	400	47	6.5	339	48	5.1	3.9	5.6	7.2
1250	207	505	45	8.9	413	47	6.5	350	48	5.1	3.9	5.6	7.2
1500	69	480	46	9.1	388	47	6.5	326	48	5.0	4.1	5.9	7.6
1500	103	504	46	9.0	409	47	6.4	344	48	5.0	4.1	5.9	7.6
1500	138	520	46	8.9	422	47	6.4	355	48	5.0	4.1	5.9	7.6
1500	207	537	45	8.8	437	47	6.3	368	48	4.9	4.1	5.9	7.6
1750	69	499	46	9.0	401	48	6.4	336	48	4.9	4.3	6.1	7.9
1750	103	526	46	8.9	424	47	6.3	356	48	4.9	4.3	6.1	7.9
1750	138	544	46	8.7	439	47	6.2	369	48	4.9	4.3	6.1	7.9
1750	207	563	46	8.7	456	47	6.2	383	48	4.9	4.3	6.1	7.9
2000	69	513	47	8.9	411	48	6.3	343	48	4.9	4.5	6.4	8.2
2000	103	544	46	8.8	437	48	6.2	365	48	4.9	4.5	6.4	8.2
2000	138	563	46	8.6	453	47	6.2	379	48	4.8	4.5	6.4	8.2
2000	207	585	46	8.6	472	47	6.1	395	48	4.8	4.5	6.4	8.2
2250	69	525	47	8.7	419	48	6.2	348	49	4.8	4.6	6.6	8.5
2250	103	557	46	8.6	446	48	6.1	371	48	4.7	4.6	6.6	8.5
2250	138	578	46	8.5	463	48	6.1	386	48	4.7	4.6	6.6	8.5
2250	207	601	46	8.5	483	47	6.0	403	48	4.7	4.6	6.6	8.5
2500	69	535	47	8.6	426	48	6.1	353	49	4.7	4.7	6.8	8.8
2500	103	570	47	8.5	455	48	6.0	377	49	4.7	4.7	6.8	8.8
2500	138	592	46	8.5	473	48	6.0	393	48	4.7	4.7	6.8	8.8
2500	207	617	46	8.3	494	48	6.0	411	48	4.6	4.7	6.8	8.8

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - Triplexed - Double Circuit

25°C Earth Ambient

Total Watts/ft for 90°C - Copper Conductor - Concentric Strand

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
500	69	72.7	56.5	55.5	41.6	44.8	32.8
500	103	71.6	55.9	54.7	41.3	44.4	32.6
500	138	71.1	55.5	54.5	41.1	44.1	32.5
500	207	70.5	55.1	54.0	40.8	44.0	32.4
750	69	77.5	59.4	58.3	43.2	46.9	34.0
750	103	75.9	58.6	57.6	42.9	46.3	33.8
750	138	75.3	58.2	57.2	42.5	46.0	33.6
750	207	74.2	57.6	56.6	42.3	45.7	33.5
1000	69	81.8	61.9	61.1	44.7	48.7	34.9
1000	103	80.0	61.0	60.1	44.2	48.1	34.7
1000	138	79.1	60.5	59.5	43.9	47.8	34.5
1000	207	78.1	59.9	59.0	43.7	47.4	34.4
1250	69	84.9	63.8	62.9	45.8	50.0	35.7
1250	103	83.1	62.8	61.9	45.2	49.4	35.4
1250	138	82.0	62.2	61.3	45.0	48.9	35.2
1250	207	80.9	61.5	60.8	44.6	48.6	35.0
1500	69	87.7	65.2	64.6	46.6	51.0	36.3
1500	103	85.8	64.2	63.5	46.1	50.5	36.0
1500	138	84.5	63.6	62.9	45.8	50.0	35.7
1500	207	83.2	62.8	62.2	45.4	49.6	35.5
1750	69	89.8	66.5	65.9	47.4	51.9	36.8
1750	103	87.9	65.5	64.8	46.8	51.3	36.5
1750	138	86.7	64.8	64.2	46.5	50.9	36.2
1750	207	85.3	64.1	63.4	46.1	50.5	36.1
2000	69	91.8	67.7	67.1	48.0	52.8	37.2
2000	103	89.8	66.6	66.1	47.5	52.1	36.9
2000	138	88.7	66.0	65.3	47.2	51.7	36.7
2000	207	87.2	65.1	64.6	46.8	51.2	36.5
2250	69	93.6	68.6	68.1	48.5	53.4	37.5
2250	103	91.6	67.5	67.1	48.0	52.8	37.2
2250	138	90.3	66.9	66.4	47.7	52.3	37.1
2250	207	88.8	66.1	65.6	47.2	51.9	36.8
2500	69	95.3	69.5	69.1	49.1	54.1	37.9
2500	103	93.2	68.4	68.0	48.6	53.4	37.6
2500	138	91.9	67.8	67.3	48.2	53.0	37.4
2500	207	90.2	66.9	66.4	47.8	52.5	37.2

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - Triplexed - Double Circuit

25°C Earth Ambient

Total Watts/ft for 80°C - Copper Conductor - Concentric Strand

		60 Rho		90 Rho		120 Rho	
		75 LF	100 LF	75 LF	100 LF	75 LF	100 LF
Condr Size	Shield Res						
500	69	61.6	48.1	46.8	35.3	37.8	27.9
500	103	60.7	47.5	46.4	35.0	37.5	27.7
500	138	60.1	47.1	46.0	34.9	37.3	27.6
500	207	59.5	46.8	45.8	34.6	37.0	27.5
750	69	65.5	50.3	49.3	36.7	39.5	28.8
750	103	64.3	49.7	48.7	36.2	39.1	28.6
750	138	63.6	49.2	48.2	36.1	38.8	28.5
750	207	62.9	48.8	47.8	35.8	38.5	28.3
1000	69	69.1	52.5	51.5	37.9	41.1	29.6
1000	103	67.8	51.8	50.8	37.5	40.6	29.4
1000	138	66.9	51.3	50.4	37.3	40.3	29.3
1000	207	66.1	50.7	49.8	37.0	39.9	29.1
1250	69	71.9	54.1	53.1	38.8	42.1	30.2
1250	103	70.4	53.2	52.4	38.3	41.5	30.0
1250	138	69.4	52.8	51.9	38.1	41.3	29.9
1250	207	68.3	52.2	51.2	37.8	40.9	29.7
1500	69	74.1	55.4	54.5	39.5	42.9	30.8
1500	103	72.5	54.6	53.6	39.1	42.4	30.5
1500	138	71.5	53.9	53.1	38.8	42.1	30.4
1500	207	70.4	53.3	52.5	38.5	41.7	30.2
1750	69	76.1	56.4	55.6	40.1	43.8	31.2
1750	103	74.4	55.6	54.7	39.7	43.3	30.9
1750	138	73.4	55.1	54.2	39.5	42.9	30.8
1750	207	72.2	54.4	53.5	39.1	42.4	30.6
2000	69	77.7	57.4	56.6	40.7	44.4	31.5
2000	103	76.1	56.5	55.6	40.2	43.8	31.3
2000	138	75.0	55.8	55.1	39.9	43.4	31.0
2000	207	73.6	55.3	54.5	39.7	43.1	30.9
2250	69	79.2	58.2	57.4	41.2	44.9	31.8
2250	103	77.5	57.3	56.5	40.8	44.4	31.6
2250	138	76.4	56.7	55.9	40.5	44.0	31.4
2250	207	75.0	56.0	55.3	40.2	43.6	31.2
2500	69	80.5	58.9	58.1	41.6	45.5	32.1
2500	103	78.8	58.0	57.3	41.1	44.9	31.8
2500	138	77.6	57.4	56.7	40.8	44.5	31.7
2500	207	76.3	56.8	56.0	40.5	44.1	31.5

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - Triplexed - Double Circuit

25°C Earth Ambient

Total Watts/ft for 65°C - Copper Conductor - Concentric Strand

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
500	69	44.9	35.2	33.9	25.8	27.3	20.3
500	103	44.2	34.6	33.6	25.6	27.0	20.2
500	138	43.8	34.4	33.4	25.4	26.9	20.1
500	207	43.2	34.2	33.1	25.3	26.7	20.1
750	69	47.7	36.9	35.7	26.8	28.5	21.1
750	103	46.8	36.4	35.2	26.5	28.1	20.9
750	138	46.2	36.1	35.0	26.3	28.0	20.8
750	207	45.7	35.7	34.6	26.2	27.8	20.7
1000	69	50.4	38.4	37.3	27.7	29.5	21.6
1000	103	49.3	37.8	36.7	27.4	29.2	21.5
1000	138	48.6	37.4	36.4	27.3	28.9	21.3
1000	207	47.9	37.1	36.0	27.1	28.7	21.2
1250	69	52.3	39.6	38.4	28.3	30.2	22.0
1250	103	51.1	39.0	37.8	28.0	29.8	21.9
1250	138	50.5	38.6	37.4	27.8	29.6	21.8
1250	207	49.6	38.1	37.0	27.6	29.4	21.6
1500	69	53.8	40.5	39.4	28.8	30.9	22.4
1500	103	52.6	39.8	38.6	28.6	30.5	22.2
1500	138	51.8	39.5	38.3	28.3	30.2	22.1
1500	207	51.1	39.0	37.9	28.1	30.0	22.0
1750	69	55.2	41.2	40.1	29.3	31.3	22.7
1750	103	54.0	40.6	39.5	29.0	31.0	22.5
1750	138	53.1	40.2	39.1	28.8	30.6	22.4
1750	207	52.3	39.7	38.6	28.6	30.4	22.3
2000	69	56.3	41.9	40.7	29.7	31.7	23.0
2000	103	55.1	41.3	40.1	29.3	31.3	22.8
2000	138	54.3	40.9	39.6	29.2	31.1	22.7
2000	207	53.4	40.4	39.2	28.9	30.8	22.5
2250	69	57.4	42.5	41.4	30.0	32.1	23.2
2250	103	56.1	41.8	40.6	29.7	31.7	23.0
2250	138	55.3	41.5	40.3	29.5	31.5	22.9
2250	207	54.4	41.0	39.8	29.3	31.2	22.8
2500	69	58.2	43.0	41.8	30.3	32.4	23.4
2500	103	57.0	42.4	41.1	30.0	32.1	23.2
2500	138	56.2	42.0	40.7	29.8	31.8	23.1
2500	207	55.2	41.4	40.3	29.6	31.5	23.0

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1350

69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - Triplexed - Double Circuit

25°C Earth Ambient

Total Watts/ft for 50°C - Copper Conductor - Concentric Strand

		60 Rho		90 Rho		120 Rho	
		75 LF	100 LF	75 LF	100 LF	75 LF	100 LF
Condr Size	Shield Res						
500	69	27.9	22.1	21.0	16.2	16.7	12.8
500	103	27.5	21.9	20.8	16.1	16.6	12.7
500	138	27.2	21.7	20.6	16.0	16.5	12.7
500	207	27.0	21.6	20.4	15.9	16.4	12.6
750	69	29.7	23.3	22.0	16.9	17.4	13.2
750	103	29.1	22.9	21.7	16.7	17.2	13.2
750	138	28.8	22.6	21.5	16.6	17.1	13.0
750	207	28.4	22.4	21.3	16.5	17.0	13.0
1000	69	31.3	24.2	22.9	17.4	18.0	13.6
1000	103	30.6	23.8	22.6	17.2	17.8	13.5
1000	138	30.2	23.6	22.4	17.1	17.6	13.4
1000	207	29.7	23.4	22.1	17.0	17.5	13.4
1250	69	32.3	24.8	23.5	17.8	18.3	13.8
1250	103	31.7	24.5	23.2	17.6	18.1	13.8
1250	138	31.2	24.3	22.9	17.5	18.0	13.7
1250	207	30.8	24.0	22.7	17.4	17.8	13.6
1500	69	33.3	25.4	24.1	18.1	18.6	14.1
1500	103	32.6	25.0	23.6	18.0	18.4	14.0
1500	138	32.1	24.8	23.4	17.8	18.3	13.9
1500	207	31.6	24.5	23.2	17.7	18.1	13.8
1750	69	34.0	25.9	24.4	18.4	18.9	14.3
1750	103	33.4	25.5	24.1	18.2	18.6	14.2
1750	138	32.9	25.3	23.9	18.1	18.5	14.1
1750	207	32.3	25.0	23.5	17.9	18.4	14.0
2000	69	34.8	26.3	24.8	18.6	19.1	14.4
2000	103	34.0	26.0	24.4	18.4	18.8	14.3
2000	138	33.5	25.7	24.2	18.3	18.7	14.3
2000	207	33.0	25.4	23.9	18.2	18.6	14.2
2250	69	35.3	26.7	25.0	18.8	19.2	14.5
2250	103	34.6	26.3	24.8	18.6	19.0	14.4
2250	138	34.0	26.0	24.5	18.5	18.9	14.4
2250	207	33.5	25.7	24.2	18.4	18.7	14.3
2500	69	35.9	27.0	25.4	19.0	19.4	14.7
2500	103	35.1	26.6	25.0	18.8	19.2	14.6
2500	138	34.6	26.4	24.8	18.7	19.1	14.5
2500	207	34.0	26.1	24.5	18.6	18.9	14.4

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - Triplexed - Double Circuit

25°C Earth Ambient

Size	Res	OD	Wd	Rac	Qs	Ri	Rj	Re @ 90 Rho & loss factor 75%	100%
			90°C - Copper Conductor - Concentric Strand						
500	69	2.679	0.51	27.52	1.179	1.95	0.27	3.96	5.81
500	103	2.679	0.51	27.52	1.123	1.95	0.27	3.96	5.81
500	138	2.679	0.51	27.52	1.093	1.95	0.27	3.96	5.81
500	207	2.679	0.51	27.52	1.062	1.95	0.27	3.96	5.81
750	69	2.918	0.57	18.84	1.267	1.72	0.32	3.84	5.69
750	103	2.918	0.57	18.84	1.184	1.72	0.32	3.84	5.69
750	138	2.918	0.57	18.84	1.139	1.72	0.32	3.84	5.69
750	207	2.918	0.57	18.84	1.093	1.72	0.32	3.84	5.69
1000	69	3.107	0.63	14.64	1.343	1.56	0.30	3.75	5.60
1000	103	3.107	0.63	14.64	1.236	1.56	0.30	3.75	5.60
1000	138	3.107	0.63	14.64	1.178	1.56	0.30	3.75	5.60
1000	207	3.107	0.63	14.64	1.120	1.56	0.30	3.75	5.60
1250	69	3.240	0.68	12.22	1.407	1.45	0.28	3.69	5.55
1250	103	3.240	0.68	12.22	1.280	1.45	0.28	3.69	5.55
1250	138	3.240	0.68	12.22	1.211	1.45	0.28	3.69	5.55
1250	207	3.240	0.68	12.22	1.142	1.45	0.28	3.69	5.55
1500	69	3.360	0.72	10.68	1.463	1.36	0.27	3.64	5.49
1500	103	3.360	0.72	10.68	1.319	1.36	0.27	3.64	5.49
1500	138	3.360	0.72	10.68	1.240	1.36	0.27	3.64	5.49
1500	207	3.360	0.72	10.68	1.161	1.36	0.27	3.64	5.49
1750	69	3.470	0.76	9.61	1.511	1.29	0.26	3.60	5.45
1750	103	3.470	0.76	9.61	1.352	1.29	0.26	3.60	5.45
1750	138	3.470	0.76	9.61	1.265	1.29	0.26	3.60	5.45
1750	207	3.470	0.76	9.61	1.178	1.29	0.26	3.60	5.45
2000	69	3.573	0.80	8.81	1.555	1.22	0.26	3.55	5.41
2000	103	3.573	0.80	8.81	1.382	1.22	0.26	3.55	5.41
2000	138	3.573	0.80	8.81	1.288	1.22	0.26	3.55	5.41
2000	207	3.573	0.80	8.81	1.193	1.22	0.26	3.55	5.41
2250	69	3.668	0.83	8.26	1.588	1.17	0.25	3.52	5.37
2250	103	3.668	0.83	8.26	1.405	1.17	0.25	3.52	5.37
2250	138	3.668	0.83	8.26	1.305	1.17	0.25	3.52	5.37
2250	207	3.668	0.83	8.26	1.205	1.17	0.25	3.52	5.37
2500	69	3.759	0.86	7.79	1.622	1.13	0.24	3.48	5.34
2500	103	3.759	0.86	7.79	1.428	1.13	0.24	3.48	5.34
2500	138	3.759	0.86	7.79	1.323	1.13	0.24	3.48	5.34
2500	207	3.759	0.86	7.79	1.216	1.13	0.24	3.48	5.34

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - Triplexed - Double Circuit

25°C Earth Ambient

Size	Res	OD	Wd	Rac	Qs	Ri	Rj	Re @ 90 Rho & loss factor 75%	Re @ 90 Rho & loss factor 100%
			80°C - Copper Conductor - Concentric Strand						
500	69	2.679	0.51	27.52	1.179	1.95	0.27	3.96	5.81
500	103	2.679	0.51	27.52	1.123	1.95	0.27	3.96	5.81
500	138	2.679	0.51	27.52	1.093	1.95	0.27	3.96	5.81
500	207	2.679	0.51	27.52	1.062	1.95	0.27	3.96	5.81
750	69	2.918	0.57	18.84	1.267	1.72	0.32	3.84	5.69
750	103	2.918	0.57	18.84	1.184	1.72	0.32	3.84	5.69
750	138	2.918	0.57	18.84	1.139	1.72	0.32	3.84	5.69
750	207	2.918	0.57	18.84	1.093	1.72	0.32	3.84	5.69
1000	69	3.107	0.63	14.64	1.343	1.56	0.30	3.75	5.60
1000	103	3.107	0.63	14.64	1.236	1.56	0.30	3.75	5.60
1000	138	3.107	0.63	14.64	1.178	1.56	0.30	3.75	5.60
1000	207	3.107	0.63	14.64	1.120	1.56	0.30	3.75	5.60
1250	69	3.240	0.68	12.22	1.407	1.45	0.28	3.69	5.55
1250	103	3.240	0.68	12.22	1.280	1.45	0.28	3.69	5.55
1250	138	3.240	0.68	12.22	1.211	1.45	0.28	3.69	5.55
1250	207	3.240	0.68	12.22	1.142	1.45	0.28	3.69	5.55
1500	69	3.360	0.72	10.68	1.463	1.36	0.27	3.64	5.49
1500	103	3.360	0.72	10.68	1.319	1.36	0.27	3.64	5.49
1500	138	3.360	0.72	10.68	1.240	1.36	0.27	3.64	5.49
1500	207	3.360	0.72	10.68	1.161	1.36	0.27	3.64	5.49
1750	69	3.470	0.76	9.61	1.511	1.29	0.26	3.60	5.45
1750	103	3.470	0.76	9.61	1.352	1.29	0.26	3.60	5.45
1750	138	3.470	0.76	9.61	1.265	1.29	0.26	3.60	5.45
1750	207	3.470	0.76	9.61	1.178	1.29	0.26	3.60	5.45
2000	69	3.573	0.80	8.81	1.555	1.22	0.26	3.55	5.41
2000	103	3.573	0.80	8.81	1.382	1.22	0.26	3.55	5.41
2000	138	3.573	0.80	8.81	1.288	1.22	0.26	3.55	5.41
2000	207	3.573	0.80	8.81	1.193	1.22	0.26	3.55	5.41
2250	69	3.668	0.83	8.26	1.588	1.17	0.25	3.52	5.37
2250	103	3.668	0.83	8.26	1.405	1.17	0.25	3.52	5.37
2250	138	3.668	0.83	8.26	1.305	1.17	0.25	3.52	5.37
2250	207	3.668	0.83	8.26	1.205	1.17	0.25	3.52	5.37
2500	69	3.759	0.86	7.79	1.622	1.13	0.24	3.48	5.34
2500	103	3.759	0.86	7.79	1.428	1.13	0.24	3.48	5.34
2500	138	3.759	0.86	7.79	1.323	1.13	0.24	3.48	5.34
2500	207	3.759	0.86	7.79	1.216	1.13	0.24	3.48	5.34

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - Triplexed - Double Circuit

25°C Earth Ambient

Size	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	0.51	27.52	1.179	1.95	0.27	3.96	5.81
500	103	2.679	0.51	27.52	1.123	1.95	0.27	3.96	5.81
500	138	2.679	0.51	27.52	1.093	1.95	0.27	3.96	5.81
500	207	2.679	0.51	27.52	1.062	1.95	0.27	3.96	5.81
750	69	2.918	0.57	18.84	1.267	1.72	0.32	3.84	5.69
750	103	2.918	0.57	18.84	1.184	1.72	0.32	3.84	5.69
750	138	2.918	0.57	18.84	1.139	1.72	0.32	3.84	5.69
750	207	2.918	0.57	18.84	1.093	1.72	0.32	3.84	5.69
1000	69	3.107	0.63	14.64	1.343	1.56	0.30	3.75	5.60
1000	103	3.107	0.63	14.64	1.236	1.56	0.30	3.75	5.60
1000	138	3.107	0.63	14.64	1.178	1.56	0.30	3.75	5.60
1000	207	3.107	0.63	14.64	1.120	1.56	0.30	3.75	5.60
1250	69	3.240	0.68	12.22	1.407	1.45	0.28	3.69	5.55
1250	103	3.240	0.68	12.22	1.280	1.45	0.28	3.69	5.55
1250	138	3.240	0.68	12.22	1.211	1.45	0.28	3.69	5.55
1250	207	3.240	0.68	12.22	1.142	1.45	0.28	3.69	5.55
1500	69	3.360	0.72	10.68	1.463	1.36	0.27	3.64	5.49
1500	103	3.360	0.72	10.68	1.319	1.36	0.27	3.64	5.49
1500	138	3.360	0.72	10.68	1.240	1.36	0.27	3.64	5.49
1500	207	3.360	0.72	10.68	1.161	1.36	0.27	3.64	5.49
1750	69	3.470	0.76	9.61	1.511	1.29	0.26	3.60	5.45
1750	103	3.470	0.76	9.61	1.352	1.29	0.26	3.60	5.45
1750	138	3.470	0.76	9.61	1.265	1.29	0.26	3.60	5.45
1750	207	3.470	0.76	9.61	1.178	1.29	0.26	3.60	5.45
2000	69	3.573	0.80	8.81	1.555	1.22	0.26	3.55	5.41
2000	103	3.573	0.80	8.81	1.382	1.22	0.26	3.55	5.41
2000	138	3.573	0.80	8.81	1.288	1.22	0.26	3.55	5.41
2000	207	3.573	0.80	8.81	1.193	1.22	0.26	3.55	5.41
2250	69	3.668	0.83	8.26	1.588	1.17	0.25	3.52	5.37
2250	103	3.668	0.83	8.26	1.405	1.17	0.25	3.52	5.37
2250	138	3.668	0.83	8.26	1.305	1.17	0.25	3.52	5.37
2250	207	3.668	0.83	8.26	1.205	1.17	0.25	3.52	5.37
2500	69	3.759	0.86	7.79	1.622	1.13	0.24	3.48	5.34
2500	103	3.759	0.86	7.79	1.428	1.13	0.24	3.48	5.34
2500	138	3.759	0.86	7.79	1.323	1.13	0.24	3.48	5.34
2500	207	3.759	0.86	7.79	1.216	1.13	0.24	3.48	5.34

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - Triplexed - Double Circuit

25°C Earth Ambient

Size	Res	OD	Wd	Rac	Qs	Ri	Rj	Re @ 90 Rho & loss factor 75%	Re @ 90 Rho & loss factor 100%
			50°C - Copper Conductor - Concentric Strand						
500	69	2.679	0.51	27.52	1.179	1.95	0.27	3.96	5.81
500	103	2.679	0.51	27.52	1.123	1.95	0.27	3.96	5.81
500	138	2.679	0.51	27.52	1.093	1.95	0.27	3.96	5.81
500	207	2.679	0.51	27.52	1.062	1.95	0.27	3.96	5.81
750	69	2.918	0.57	18.84	1.267	1.72	0.32	3.84	5.69
750	103	2.918	0.57	18.84	1.184	1.72	0.32	3.84	5.69
750	138	2.918	0.57	18.84	1.139	1.72	0.32	3.84	5.69
750	207	2.918	0.57	18.84	1.093	1.72	0.32	3.84	5.69
1000	69	3.107	0.63	14.64	1.343	1.56	0.30	3.75	5.60
1000	103	3.107	0.63	14.64	1.236	1.56	0.30	3.75	5.60
1000	138	3.107	0.63	14.64	1.178	1.56	0.30	3.75	5.60
1000	207	3.107	0.63	14.64	1.120	1.56	0.30	3.75	5.60
1250	69	3.240	0.68	12.22	1.407	1.45	0.28	3.69	5.55
1250	103	3.240	0.68	12.22	1.280	1.45	0.28	3.69	5.55
1250	138	3.240	0.68	12.22	1.211	1.45	0.28	3.69	5.55
1250	207	3.240	0.68	12.22	1.142	1.45	0.28	3.69	5.55
1500	69	3.360	0.72	10.68	1.463	1.36	0.27	3.64	5.49
1500	103	3.360	0.72	10.68	1.319	1.36	0.27	3.64	5.49
1500	138	3.360	0.72	10.68	1.240	1.36	0.27	3.64	5.49
1500	207	3.360	0.72	10.68	1.161	1.36	0.27	3.64	5.49
1750	69	3.470	0.76	9.61	1.511	1.29	0.26	3.60	5.45
1750	103	3.470	0.76	9.61	1.352	1.29	0.26	3.60	5.45
1750	138	3.470	0.76	9.61	1.265	1.29	0.26	3.60	5.45
1750	207	3.470	0.76	9.61	1.178	1.29	0.26	3.60	5.45
2000	69	3.573	0.80	8.81	1.555	1.22	0.26	3.55	5.41
2000	103	3.573	0.80	8.81	1.382	1.22	0.26	3.55	5.41
2000	138	3.573	0.80	8.81	1.288	1.22	0.26	3.55	5.41
2000	207	3.573	0.80	8.81	1.193	1.22	0.26	3.55	5.41
2250	69	3.668	0.83	8.26	1.588	1.17	0.25	3.52	5.37
2250	103	3.668	0.83	8.26	1.405	1.17	0.25	3.52	5.37
2250	138	3.668	0.83	8.26	1.305	1.17	0.25	3.52	5.37
2250	207	3.668	0.83	8.26	1.205	1.17	0.25	3.52	5.37
2500	69	3.759	0.86	7.79	1.622	1.13	0.24	3.48	5.34
2500	103	3.759	0.86	7.79	1.428	1.13	0.24	3.48	5.34
2500	138	3.759	0.86	7.79	1.323	1.13	0.24	3.48	5.34
2500	207	3.759	0.86	7.79	1.216	1.13	0.24	3.48	5.34

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - 1 Circuit - Three Cables - Spaced

25°C Earth Ambient

90°C - Copper Conductor - Concentric Strand

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 .0150 pf & Rho 60	90	120
						75% LF							
500	69	649	61	35.5	576	67	28.1	522	71	23.2	1.7	2.3	2.8
500	103	670	60	34.1	597	66	27.1	543	70	22.5	1.7	2.3	2.8
500	138	689	59	32.7	616	65	26.2	562	70	22.0	1.7	2.3	2.8
500	207	715	58	30.7	639	64	24.7	583	69	20.7	1.7	2.4	3.0
750	69	749	64	36.1	660	70	28.1	596	73	23.0	1.9	2.5	3.1
750	103	783	62	34.6	692	68	27.2	627	72	22.4	1.9	2.5	3.1
750	138	814	61	33.1	722	67	26.2	655	71	21.7	1.9	2.5	3.1
750	207	855	60	31.0	763	66	24.9	694	71	20.7	1.9	2.5	3.4
750	Open	964	55	23.6	871	61	19.4	799	66	16.4	2.0	2.7	3.4
1000	69	828	66	37.0	723	72	28.4	650	75	23.1	2.0	2.7	3.4
1000	103	873	65	35.5	766	71	27.4	690	74	22.4	2.0	2.7	3.4
1000	138	913	63	33.9	804	69	26.6	726	73	21.8	2.0	2.7	3.4
1000	207	970	62	31.8	858	68	25.1	778	72	20.8	2.0	2.7	3.4
1000	Open	1129	56	23.4	1015	63	19.1	929	67	16.1	2.1	2.9	3.6
1250	69	887	68	37.6	771	73	28.6	690	77	23.1	2.1	2.8	3.5
1250	103	941	66	36.2	821	72	27.7	737	76	22.5	2.1	2.8	3.5
1250	138	990	65	34.7	867	71	26.8	780	75	21.8	2.1	2.8	3.5
1250	207	1060	63	32.4	933	69	25.3	843	74	20.7	2.1	2.8	3.5
1250	Open	1268	57	23.3	1136	64	19.0	1037	68	15.9	2.3	3.0	3.8
1500	Open	1387	58	23.3	1239	65	18.8	1129	69	15.8	2.3	3.2	4.0
1750	Open	1491	59	23.3	1328	65	18.7	1208	70	15.6	2.4	3.3	4.2
2000	Open	1584	60	23.3	1408	66	18.6	1278	70	15.4	2.5	3.4	4.3
2250	Open	1659	60	23.2	1472	67	18.4	1335	71	15.3	2.6	3.5	4.5
2500	Open	1732	61	23.2	1534	67	18.3	1389	71	15.1	2.7	3.6	4.6

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1356

69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - 1 Circuit - Three Cables - Spaced

25°C Earth Ambient

90°C - Copper Conductor - Concentric Strand

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 .0150 pf & Rho 60	90	120
						100% LF							
500	69	584	67	28.9	507	73	22.0	452	77	17.7	1.7	2.3	2.8
500	103	605	66	27.8	526	72	21.2	470	76	17.1	1.7	2.3	2.8
500	138	622	65	26.7	542	71	20.4	486	75	16.5	1.7	2.3	2.8
500	207	644	64	25.1	564	70	19.4	506	74	15.8	1.7	2.4	3.0
750	69	668	69	28.9	576	75	21.6	513	78	17.3	1.9	2.5	3.1
750	103	701	68	27.9	606	74	21.1	541	78	16.9	1.9	2.5	3.1
750	138	731	68	26.8	634	74	20.4	565	77	16.4	1.9	2.5	3.1
750	207	769	66	25.3	668	72	19.2	597	76	15.6	1.9	2.5	3.4
750	Open	877	61	19.6	775	67	15.4	700	71	12.7	2.0	2.7	3.4
1000	69	733	71	29.1	627	76	21.5	556	79	17.1	2.0	2.7	3.4
1000	103	775	70	28.2	666	76	20.9	591	79	16.7	2.0	2.7	3.4
1000	138	814	70	27.2	701	75	20.3	624	78	16.2	2.0	2.7	3.4
1000	207	868	68	25.6	749	74	19.3	667	77	15.5	2.0	2.7	3.4
1000	Open	1022	62	19.3	899	69	15.1	809	73	12.4	2.1	2.9	3.6
1250	69	780	73	29.4	665	78	21.5	587	80	17.0	2.1	2.8	3.5
1250	103	831	72	28.4	710	77	21.0	629	80	16.6	2.1	2.8	3.5
1250	138	877	71	27.4	752	76	20.3	667	79	16.2	2.1	2.8	3.5
1250	207	943	70	25.8	812	75	19.3	720	79	15.4	2.1	2.8	3.5
1250	Open	1144	63	19.2	1002	70	14.9	900	74	12.1	2.3	3.0	3.8
1500	Open	1247	64	19.1	1089	70	14.7	977	74	12.1	2.3	3.2	4.0
1750	Open	1337	65	18.9	1164	71	14.5	1042	75	11.8	2.4	3.3	4.2
2000	Open	1417	66	18.8	1231	72	14.4	1100	75	11.7	2.5	3.4	4.3
2250	Open	1481	66	18.6	1284	72	14.3	1146	76	11.6	2.6	3.5	4.5
2500	Open	1542	67	18.5	1335	73	14.1	1190	76	11.4	2.7	3.6	4.6

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - 1 Circuit - Three Cables - Spaced

25°C Earth Ambient

80°C - Copper Conductor - Concentric Strand

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 .0150 pf & Rho 60	90	120
						75% LF							
500	69	596	56	30.5	527	61	24.1	478	65	20.0	1.7	2.3	2.8
500	103	615	55	29.4	546	60	23.4	496	64	19.4	1.7	2.3	2.8
500	138	633	54	28.2	564	60	22.5	514	63	18.8	1.7	2.3	2.8
500	207	658	53	26.5	589	59	21.2	536	62	17.8	1.7	2.4	3.0
750	69	685	58	31.0	601	63	24.1	542	66	19.6	1.9	2.5	3.1
750	103	715	57	29.8	630	62	23.3	569	66	19.2	1.9	2.5	3.1
750	138	743	56	28.7	657	61	22.5	595	65	18.6	1.9	2.5	3.1
750	207	784	55	26.8	697	60	21.3	633	64	17.8	1.9	2.5	3.1
750	Open	897	50	19.9	809	56	16.4	742	60	13.9	2.0	2.7	3.4
1000	69	754	60	31.7	657	65	24.3	589	68	19.7	2.0	2.7	3.4
1000	103	793	59	30.5	694	64	23.6	624	67	19.2	2.0	2.7	3.4
1000	138	831	58	29.3	730	63	22.7	657	66	18.7	2.0	2.7	3.4
1000	207	885	57	27.4	782	62	21.5	707	65	17.7	2.0	2.7	3.4
1000	Open	1049	52	19.8	943	57	16.1	862	61	13.5	2.1	2.9	3.6
1250	69	805	62	32.2	698	66	24.4	624	69	19.7	2.1	2.8	3.5
1250	103	853	61	31.1	742	65	23.7	664	68	19.2	2.1	2.8	3.5
1250	138	898	60	29.8	784	65	23.0	704	68	18.6	2.1	2.8	3.5
1250	207	965	58	27.9	847	63	21.8	763	66	17.8	2.1	2.8	3.5
1250	Open	1177	52	19.8	1054	58	16.0	961	62	13.4	2.3	3.0	3.8
1500	Open	1287	53	19.8	1148	59	15.9	1045	62	13.3	2.3	3.2	4.0
1750	Open	1382	54	19.7	1230	59	15.9	1117	63	13.2	2.4	3.3	4.2
2000	Open	1467	54	19.7	1303	60	15.7	1181	63	13.0	2.5	3.4	4.3
2250	Open	1536	55	19.6	1361	60	15.6	1232	64	12.9	2.6	3.5	4.5
2500	Open	1602	55	19.6	1417	61	15.4	1281	64	12.8	2.7	3.6	4.6

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1358

69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - 1 Circuit - Three Cables - Spaced

25°C Earth Ambient

80°C - Copper Conductor - Concentric Strand

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 .0150 pf & Rho 60	90	120
						100% LF							
500	69	535	61	24.8	464	66	18.8	413	69	15.1	1.7	2.3	2.8
500	103	554	60	24.0	481	65	18.3	429	68	14.7	1.7	2.3	2.8
500	138	572	60	23.1	497	65	17.7	444	68	14.3	1.7	2.3	2.8
500	207	593	58	21.7	518	64	16.7	465	67	13.5	1.7	2.4	3.0
750	69	610	63	24.7	524	67	18.5	466	70	14.8	1.9	2.5	3.1
750	103	639	62	24.0	551	67	18.1	491	70	14.4	1.9	2.5	3.1
750	138	666	61	23.2	577	66	17.5	514	69	14.1	1.9	2.5	3.1
750	207	706	61	21.9	611	65	16.6	545	68	13.4	1.9	2.5	3.1
750	Open	817	56	16.6	720	61	13.1	650	65	10.9	2.0	2.7	3.4
1000	69	666	65	25.0	569	69	18.4	503	71	14.5	2.0	2.7	3.4
1000	103	703	64	24.2	603	68	17.9	534	71	14.3	2.0	2.7	3.4
1000	138	739	63	23.4	635	68	17.5	564	71	13.9	2.0	2.7	3.4
1000	207	791	62	22.1	682	67	16.6	606	70	13.3	2.0	2.7	3.4
1000	Open	950	57	16.4	835	62	12.8	751	65	10.4	2.1	2.9	3.6
1250	69	707	66	25.1	601	70	18.4	530	72	14.4	2.1	2.8	3.5
1250	103	752	65	24.4	641	69	17.9	566	72	14.1	2.1	2.8	3.5
1250	138	794	64	23.6	679	69	17.4	601	71	13.8	2.1	2.8	3.5
1250	207	857	63	22.3	737	68	16.6	653	71	13.2	2.1	2.8	3.5
1250	Open	1062	58	16.3	929	63	12.6	834	66	10.4	2.3	3.0	3.8
1500	Open	1157	58	16.1	1009	64	12.5	904	67	10.1	2.3	3.2	4.0
1750	Open	1239	59	16.1	1078	64	12.3	963	67	10.0	2.4	3.3	4.2
2000	Open	1312	60	15.9	1139	65	12.2	1016	68	9.8	2.5	3.4	4.3
2250	Open	1371	60	15.8	1187	65	12.1	1058	68	9.8	2.6	3.5	4.5
2500	Open	1427	61	15.6	1233	65	12.0	1097	69	9.7	2.7	3.6	4.6

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - 1 Circuit - Three Cables - Spaced

25°C Earth Ambient

65°C - Copper Conductor - Concentric Strand

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 .0150 pf & Rho 60	90	120
						75% LF							
500	69	506	48	22.7	446	52	17.8	402	54	14.7	1.7	2.3	2.8
500	103	520	48	22.0	460	51	17.4	416	54	14.3	1.7	2.3	2.8
500	138	536	47	21.1	476	51	16.8	431	54	14.0	1.7	2.3	2.8
500	207	560	46	19.8	499	50	16.0	453	53	13.3	1.7	2.3	3.0
750	69	576	50	23.0	504	53	17.8	452	56	14.4	1.9	2.5	3.1
750	103	599	49	22.3	526	53	17.3	473	55	14.1	1.9	2.5	3.1
750	138	624	49	21.5	549	52	16.8	495	55	13.7	1.9	2.5	3.1
750	207	661	47	20.2	585	51	15.8	529	54	13.1	1.9	2.5	3.1
750	Open	777	44	14.5	699	48	11.9	639	51	10.1	2.0	2.7	3.4
1000	69	631	51	23.5	547	55	17.8	489	57	14.4	2.0	2.7	3.4
1000	103	661	51	22.7	575	54	17.5	515	56	14.1	2.0	2.7	3.4
1000	138	693	50	21.9	605	54	16.8	543	56	13.8	2.0	2.7	3.4
1000	207	742	49	20.5	652	53	16.0	586	55	13.2	2.0	2.7	3.4
1000	Open	907	45	14.4	813	49	11.7	741	51	9.8	2.1	2.9	3.6
1250	69	670	52	23.8	579	56	17.9	515	58	14.4	2.1	2.8	3.5
1250	103	707	52	23.1	612	55	17.6	546	57	14.0	2.1	2.8	3.5
1250	138	745	51	22.3	647	54	17.0	578	57	13.8	2.1	2.8	3.5
1250	207	805	50	21.0	703	53	16.2	630	56	13.2	2.1	2.8	3.5
1250	Open	1016	45	14.4	907	49	11.7	824	52	9.8	2.3	3.0	3.8
1500	Open	1109	46	14.3	986	50	11.6	894	53	9.7	2.3	3.2	4.0
1750	Open	1190	46	14.3	1056	50	11.4	955	53	9.6	2.4	3.3	4.2
2000	Open	1260	47	14.3	1115	51	11.4	1007	53	9.4	2.5	3.4	4.3
2250	Open	1318	47	14.3	1163	51	11.4	1049	54	9.4	2.6	3.5	4.5
2500	Open	1373	48	14.2	1210	51	11.3	1089	54	9.2	2.7	3.6	4.6

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1360

69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - 1 Circuit - Three Cables - Spaced

25°C Earth Ambient

65°C - Copper Conductor - Concentric Strand

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 .0150 pf & Rho 60	90	120
						100% LF							
500	69	453	52	18.4	391	55	13.8	347	58	11.1	1.7	2.3	2.8
500	103	468	51	18.0	405	55	13.5	360	57	11.0	1.7	2.3	2.8
500	138	484	51	17.3	419	55	13.1	373	57	10.6	1.7	2.3	2.8
500	207	505	50	16.3	439	54	12.4	392	56	10.1	1.7	2.3	3.0
750	69	512	53	18.3	439	56	13.6	388	58	10.9	1.9	2.5	3.1
750	103	534	53	17.8	459	56	13.4	407	58	10.7	1.9	2.5	3.1
750	138	558	52	17.3	481	56	13.1	427	58	10.5	1.9	2.5	3.1
750	207	594	51	16.4	513	55	12.4	456	57	9.9	1.9	2.5	3.1
750	Open	707	47	12.2	622	51	9.6	560	54	7.9	2.0	2.7	3.4
1000	69	556	54	18.4	473	57	13.5	417	59	10.7	2.0	2.7	3.4
1000	103	585	54	17.9	498	57	13.3	440	59	10.6	2.0	2.7	3.4
1000	138	615	53	17.5	526	57	12.9	465	59	10.3	2.0	2.7	3.4
1000	207	662	53	16.5	568	56	12.4	503	58	9.8	2.0	2.7	3.4
1000	Open	822	48	11.9	720	52	9.3	646	55	7.6	2.1	2.9	3.6
1250	69	588	55	18.5	497	58	13.4	437	60	10.6	2.1	2.8	3.5
1250	103	622	55	18.0	527	58	13.2	464	59	10.4	2.1	2.8	3.5
1250	138	658	54	17.6	559	57	12.9	493	59	10.3	2.1	2.8	3.5
1250	207	713	54	16.6	610	57	12.4	539	59	9.8	2.1	2.8	3.5
1250	Open	917	49	11.9	800	53	9.2	715	55	7.5	2.3	3.0	3.8
1500	Open	997	50	11.8	867	53	9.1	774	56	7.4	2.3	3.2	4.0
1750	Open	1067	50	11.7	925	54	9.0	824	56	7.3	2.4	3.3	4.2
2000	Open	1127	50	11.7	975	54	8.9	866	56	7.2	2.5	3.4	4.3
2250	Open	1176	51	11.6	1015	54	8.9	901	57	7.1	2.6	3.5	4.5
2500	Open	1223	51	11.5	1053	55	8.7	933	57	7.0	2.7	3.6	4.6

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - 1 Circuit - Three Cables - Spaced

25°C Earth Ambient

50°C - Copper Conductor - Concentric Strand

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 .0150 pf & Rho 60	90	120
						75% LF							
500	69	395	40	14.4	345	42	11.3	310	44	9.1	1.7	2.3	2.8
500	103	404	40	14.1	355	42	11.0	319	44	9.0	1.7	2.3	2.8
500	138	417	39	13.5	367	42	10.7	330	43	8.8	1.7	2.3	2.8
500	207	437	39	12.8	387	41	10.1	349	43	8.4	1.7	2.3	2.8
750	69	446	41	14.5	387	43	11.1	345	45	9.0	1.9	2.5	3.1
750	103	461	41	14.3	401	43	11.0	358	44	8.9	1.9	2.5	3.1
750	138	480	40	13.7	419	43	10.6	375	44	8.6	1.9	2.5	3.1
750	207	511	40	13.0	448	42	10.1	402	44	8.2	1.9	2.5	3.1
750	Open	619	37	9.0	553	40	7.5	503	42	6.3	2.0	2.7	3.4
1000	69	485	42	14.8	417	44	11.2	370	45	9.0	2.0	2.7	3.4
1000	103	505	42	14.5	436	44	10.9	387	45	8.9	2.0	2.7	3.4
1000	138	529	41	14.0	458	43	10.7	407	45	8.6	2.0	2.7	3.4
1000	207	569	41	13.2	495	43	10.2	442	44	8.2	2.0	2.7	3.4
1000	Open	721	38	9.0	641	40	7.3	581	42	6.1	2.1	2.9	3.6
1250	69	513	43	15.0	439	45	11.2	388	46	8.8	2.1	2.8	3.5
1250	103	537	42	14.6	461	44	11.0	407	46	8.7	2.1	2.8	3.5
1250	138	566	42	14.1	487	44	10.7	431	45	8.6	2.1	2.8	3.5
1250	207	613	41	13.4	530	43	10.3	471	45	8.3	2.1	2.8	3.5
1250	Open	805	38	9.0	713	41	7.2	644	42	6.0	2.3	3.0	3.8
1500	Open	877	39	9.0	774	41	7.2	696	43	5.9	2.3	3.2	4.0
1750	Open	939	39	8.9	826	41	7.2	741	43	5.9	2.4	3.3	4.2
2000	Open	993	39	9.0	871	42	7.1	779	43	5.9	2.5	3.4	4.3
2250	Open	1037	39	9.0	907	42	7.0	810	44	5.7	2.6	3.5	4.5
2500	Open	1079	40	8.8	941	42	7.0	839	44	5.7	2.7	3.6	4.6

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1362

69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - 1 Circuit - Three Cables - Spaced

25°C Earth Ambient

50°C - Copper Conductor - Concentric Strand

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 .0150 pf & Rho 60	90	120
						100% LF							
500	69	353	42	11.7	303	45	8.8	267	46	7.0	1.7	2.3	2.8
500	103	363	42	11.4	312	44	8.7	276	46	7.0	1.7	2.3	2.8
500	138	375	42	11.1	323	44	8.4	286	45	6.7	1.7	2.3	2.8
500	207	394	41	10.6	340	44	8.0	301	45	6.4	1.7	2.3	2.8
750	69	395	43	11.7	336	45	8.6	296	46	6.8	1.9	2.5	3.1
750	103	410	43	11.4	349	45	8.5	307	46	6.7	1.9	2.5	3.1
750	138	428	42	11.1	366	45	8.2	322	46	6.7	1.9	2.5	3.1
750	207	458	42	10.5	393	44	8.0	346	46	6.4	1.9	2.5	3.1
750	Open	563	39	7.6	493	42	6.0	441	44	5.0	2.0	2.7	3.4
1000	69	427	44	11.6	360	46	8.5	315	47	6.6	2.0	2.7	3.4
1000	103	445	44	11.4	377	45	8.4	330	47	6.6	2.0	2.7	3.4
1000	138	468	43	11.2	397	45	8.2	348	46	6.5	2.0	2.7	3.4
1000	207	506	43	10.6	431	45	7.9	379	46	6.3	2.0	2.7	3.4
1000	Open	653	40	7.5	568	42	5.9	506	44	4.8	2.1	2.9	3.6
1250	69	449	44	11.7	377	46	8.4	329	47	6.6	2.1	2.8	3.5
1250	103	471	44	11.4	396	46	8.4	346	47	6.5	2.1	2.8	3.5
1250	138	498	44	11.2	420	46	8.1	367	47	6.5	2.1	2.8	3.5
1250	207	542	43	10.6	459	45	7.9	403	47	6.2	2.1	2.8	3.5
1250	Open	727	40	7.4	629	43	5.8	559	44	4.7	2.3	3.0	3.8
1500	Open	788	41	7.4	680	43	5.7	602	45	4.7	2.3	3.2	4.0
1750	Open	842	41	7.4	724	43	5.7	640	45	4.6	2.4	3.3	4.2
2000	Open	888	41	7.3	761	44	5.6	671	45	4.5	2.5	3.4	4.3
2250	Open	925	42	7.3	791	44	5.5	695	45	4.5	2.6	3.5	4.5
2500	Open	960	42	7.2	819	44	5.5	719	45	4.5	2.7	3.6	4.6

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - 1 Circuit - Three Cables - Spaced

25°C Earth Ambient

Total Watts/ft for 90°C - Copper Conductor - Concentric Strand

		60 Rho		90 Rho		120 Rho	
		75 LF	100 LF	75 LF	100 LF	75 LF	100 LF
Condr Size	Shield Res						
500	69	66.8	54.3	52.9	41.3	43.7	33.2
500	103	64.8	53.1	51.8	40.5	43.1	32.7
500	138	63.1	51.7	50.7	39.6	42.5	32.1
500	207	60.7	49.5	48.8	38.3	40.9	31.2
750	69	72.2	57.8	56.4	43.4	46.3	34.8
750	103	70.3	56.7	55.3	42.8	45.7	34.5
750	138	68.6	55.7	54.3	42.3	45.0	33.9
750	207	65.8	53.6	52.7	40.8	43.9	33.0
750	Open	53.7	44.8	44.2	35.3	37.4	29.1
1000	69	77.6	61.2	59.6	45.3	48.5	36.0
1000	103	75.7	60.0	58.7	44.8	48.0	35.7
1000	138	73.7	59.0	57.6	44.2	47.3	35.4
1000	207	70.9	57.2	55.9	43.1	46.3	34.5
1000	Open	56.8	46.9	46.2	36.7	39.0	30.1
1250	69	81.5	63.5	62.1	46.7	50.1	36.8
1250	103	79.5	62.5	61.0	46.1	49.6	36.7
1250	138	77.7	61.4	60.0	45.7	49.0	36.4
1250	207	74.8	59.6	58.4	44.7	48.0	35.6
1250	Open	59.2	48.6	47.9	37.7	40.3	30.8
1500	Open	61.2	49.9	49.3	38.5	41.3	31.4
1750	Open	63.0	51.1	50.5	39.3	42.1	31.9
2000	Open	64.7	52.2	51.6	40.0	42.9	32.4
2250	Open	66.0	53.1	52.5	40.5	43.6	32.8
2500	Open	67.4	53.9	53.4	41.1	44.3	33.2

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - 1 Circuit - Three Cables - Spaced

25°C Earth Ambient

Total Watts/ft for 80°C - Copper Conductor - Concentric Strand

		60 Rho		90 Rho		120 Rho	
		75 LF	100 LF	75 LF	100 LF	75 LF	100 LF
Condr Size	Shield Res						
500	69	57.2	46.4	45.0	35.3	37.3	28.2
500	103	55.7	45.4	44.2	34.6	36.7	27.9
500	138	54.2	44.5	43.3	34.0	36.2	27.4
500	207	52.0	42.5	42.0	32.8	35.0	26.7
750	69	61.8	49.4	48.0	36.9	39.4	29.5
750	103	60.3	48.5	47.2	36.5	38.8	29.4
750	138	58.7	47.5	46.3	36.1	38.3	29.0
750	207	56.5	46.1	45.0	35.0	37.4	28.2
750	Open	45.5	38.0	37.3	29.9	31.7	24.7
1000	69	66.3	52.1	50.8	38.6	41.2	30.5
1000	103	64.7	51.2	50.0	38.2	40.8	30.4
1000	138	63.2	50.4	49.2	37.7	40.2	30.1
1000	207	60.7	48.9	47.8	36.8	39.4	29.5
1000	Open	48.0	39.7	39.2	31.1	33.0	25.5
1250	69	69.4	54.0	52.7	39.6	42.5	31.2
1250	103	68.0	53.3	51.9	39.3	42.0	31.1
1250	138	66.4	52.4	51.1	38.8	41.6	30.9
1250	207	64.1	50.9	49.8	38.2	40.8	30.4
1250	Open	50.0	41.1	40.5	31.9	34.0	26.1
1500	Open	51.8	42.3	41.6	32.7	34.9	26.6
1750	Open	53.3	43.3	42.7	33.3	35.6	27.1
2000	Open	54.6	44.2	43.6	33.9	36.3	27.5
2250	Open	55.8	45.0	44.4	34.4	36.8	27.8
2500	Open	57.0	45.7	45.1	34.8	37.4	28.1

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - 1 Circuit - Three Cables - Spaced

25°C Earth Ambient

Total Watts/ft for 65°C - Copper Conductor - Concentric Strand

		60 Rho		90 Rho		120 Rho	
		75 LF	100 LF	75 LF	100 LF	75 LF	100 LF
Condr Size	Shield Res						
500	69	42.3	34.2	33.2	25.9	27.3	20.7
500	103	41.2	33.7	32.6	25.6	26.9	20.5
500	138	40.2	33.1	32.0	25.2	26.5	20.2
500	207	38.6	31.7	31.0	24.3	25.8	19.7
750	69	45.5	36.3	35.2	27.2	28.7	21.6
750	103	44.5	35.8	34.7	26.9	28.4	21.5
750	138	43.6	35.2	34.1	26.6	28.1	21.3
750	207	41.9	34.1	33.2	25.9	27.4	20.8
750	Open	33.1	27.7	27.1	21.8	22.9	18.0
1000	69	48.8	38.3	37.1	28.2	30.1	22.4
1000	103	47.8	37.9	36.6	28.0	29.8	22.2
1000	138	46.8	37.3	36.1	27.8	29.5	22.1
1000	207	45.1	36.3	35.2	27.2	28.8	21.7
1000	Open	34.9	29.0	28.4	22.7	23.9	18.6
1250	69	50.9	39.7	38.5	28.9	30.9	22.8
1250	103	50.1	39.2	38.1	28.7	30.7	22.7
1250	138	49.1	38.8	37.5	28.5	30.4	22.6
1250	207	47.5	37.7	36.7	28.1	29.9	22.4
1250	Open	36.4	30.0	29.4	23.3	24.6	19.1
1500	Open	37.7	30.9	30.2	23.9	25.2	19.5
1750	Open	38.7	31.6	31.0	24.3	25.7	19.7
2000	Open	39.7	32.2	31.6	24.7	26.2	20.0
2250	Open	40.6	32.8	32.1	25.1	26.6	20.3
2500	Open	41.4	33.4	32.7	25.4	27.0	20.5

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1366

69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - 1 Circuit - Three Cables - Spaced

25°C Earth Ambient

Total Watts/ft for 50°C - Copper Conductor - Concentric Strand

		60 Rho		90 Rho		120 Rho	
		75 LF	100 LF	75 LF	100 LF	75 LF	100 LF
Condr Size	Shield Res						
500	69	26.8	21.7	20.8	16.4	17.1	13.1
500	103	26.2	21.5	20.6	16.3	16.9	13.0
500	138	25.7	21.1	20.2	16.0	16.7	12.9
500	207	24.7	20.3	19.7	15.5	16.3	12.5
750	69	28.8	22.9	22.1	17.1	17.9	13.6
750	103	28.3	22.7	21.8	16.9	17.7	13.5
750	138	27.7	22.4	21.5	16.8	17.6	13.4
750	207	26.7	21.8	21.0	16.5	17.2	13.2
750	Open	20.7	17.4	16.9	13.8	14.3	11.4
1000	69	30.7	24.2	23.2	17.8	18.6	14.0
1000	103	30.2	23.9	23.0	17.7	18.5	14.0
1000	138	29.6	23.6	22.7	17.5	18.3	13.9
1000	207	28.7	23.1	22.1	17.2	18.0	13.8
1000	Open	21.9	18.3	17.7	14.3	14.9	11.7
1250	69	32.0	25.0	24.0	18.2	19.2	14.4
1250	103	31.6	24.8	23.8	18.1	19.0	14.3
1250	138	31.1	24.5	23.5	18.0	18.9	14.3
1250	207	30.1	23.9	23.0	17.8	18.6	14.1
1250	Open	22.7	18.9	18.3	14.7	15.3	12.0
1500	Open	23.5	19.4	18.8	15.0	15.6	12.2
1750	Open	24.2	19.9	19.2	15.3	15.9	12.4
2000	Open	24.8	20.3	19.6	15.6	16.2	12.6
2250	Open	25.3	20.7	20.0	15.8	16.4	12.7
2500	Open	25.8	21.0	20.3	16.0	16.6	12.9

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - 1 Circuit - Three Cables - Spaced

25°C Earth Ambient

Size	Res	OD	Wd	Rac	Qs	Ri	Rj	Re @ 90 Rho & loss factor 75%	100%
			90°C - Copper Conductor - Concentric Strand						
500	69	2.679	0.51	27.39	1.989	1.95	0.27	2.22	3.57
500	103	2.679	0.51	27.39	1.795	1.95	0.27	2.22	3.57
500	138	2.679	0.51	27.39	1.637	1.95	0.27	2.22	3.57
500	207	2.679	0.51	27.39	1.353	1.95	0.27	2.41	3.57
750	69	2.918	0.57	18.60	2.402	1.72	0.32	2.18	3.22
750	103	2.918	0.57	18.60	2.118	1.72	0.32	2.18	3.22
750	138	2.918	0.57	18.60	1.893	1.72	0.32	2.18	3.22
750	207	2.918	0.57	18.60	1.625	1.72	0.32	2.18	3.53
750	Open	2.918	0.57	18.60	1.004	1.72	0.32	2.37	3.53
1000	69	3.107	0.63	14.30	2.763	1.56	0.30	2.15	3.19
1000	103	3.107	0.63	14.30	2.397	1.56	0.30	2.15	3.19
1000	138	3.107	0.63	14.30	2.114	1.56	0.30	2.15	3.19
1000	207	3.107	0.63	14.30	1.777	1.56	0.30	2.15	3.50
1000	Open	3.107	0.63	14.30	1.006	1.56	0.30	2.34	3.50
1250	69	3.240	0.68	11.79	3.077	1.45	0.28	2.13	3.17
1250	103	3.240	0.68	11.79	2.638	1.45	0.28	2.13	3.17
1250	138	3.240	0.68	11.79	2.303	1.45	0.28	2.13	3.17
1250	207	3.240	0.68	11.79	1.907	1.45	0.28	2.13	3.48
1250	Open	3.240	0.68	11.79	1.008	1.45	0.28	2.32	3.48
1500	Open	3.360	0.72	10.16	1.010	1.36	0.27	2.31	3.46
1750	Open	3.470	0.76	9.03	1.013	1.29	0.26	2.29	3.45
2000	Open	3.573	0.80	8.18	1.015	1.22	0.26	2.28	3.43
2250	Open	3.668	0.83	7.60	1.017	1.17	0.25	2.27	3.42
2500	Open	3.759	0.86	7.10	1.019	1.13	0.24	2.25	3.41

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1368

69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - 1 Circuit - Three Cables - Spaced

25°C Earth Ambient

Size	Res	OD	Wd	Rac	Qs	Ri	Rj	Re @ 90 Rho & loss factor 75%	Re @ 90 Rho & loss factor 100%
				80°C - Copper Conductor - Concentric Strand					
500	69	2.679	0.51	27.39	1.989	1.95	0.27	2.22	3.57
500	103	2.679	0.51	27.39	1.795	1.95	0.27	2.22	3.57
500	138	2.679	0.51	27.39	1.637	1.95	0.27	2.22	3.57
500	207	2.679	0.51	27.39	1.353	1.95	0.27	2.41	3.57
750	69	2.918	0.57	18.60	2.402	1.72	0.32	2.18	3.22
750	103	2.918	0.57	18.60	2.118	1.72	0.32	2.18	3.22
750	138	2.918	0.57	18.60	1.893	1.72	0.32	2.18	3.22
750	207	2.918	0.57	18.60	1.625	1.72	0.32	2.18	3.53
750	Open	2.918	0.57	18.60	1.004	1.72	0.32	2.37	3.53
1000	69	3.107	0.63	14.30	2.763	1.56	0.30	2.15	3.19
1000	103	3.107	0.63	14.30	2.397	1.56	0.30	2.15	3.19
1000	138	3.107	0.63	14.30	2.114	1.56	0.30	2.15	3.19
1000	207	3.107	0.63	14.30	1.777	1.56	0.30	2.15	3.50
1000	Open	3.107	0.63	14.30	1.006	1.56	0.30	2.34	3.50
1250	69	3.240	0.68	11.79	3.077	1.45	0.28	2.13	3.17
1250	103	3.240	0.68	11.79	2.638	1.45	0.28	2.13	3.17
1250	138	3.240	0.68	11.79	2.303	1.45	0.28	2.13	3.17
1250	207	3.240	0.68	11.79	1.907	1.45	0.28	2.13	3.48
1250	Open	3.240	0.68	11.79	1.008	1.45	0.28	2.32	3.48
1500	Open	3.360	0.72	10.16	1.010	1.36	0.27	2.31	3.46
1750	Open	3.470	0.76	9.03	1.013	1.29	0.26	2.29	3.45
2000	Open	3.573	0.80	8.18	1.015	1.22	0.26	2.28	3.43
2250	Open	3.668	0.83	7.60	1.017	1.17	0.25	2.27	3.42
2500	Open	3.759	0.86	7.10	1.019	1.13	0.24	2.25	3.41

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - 1 Circuit - Three Cables - Spaced

25°C Earth Ambient

Size	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	0.51	27.39	1.989	1.95	0.27	2.22	3.57
500	103	2.679	0.51	27.39	1.795	1.95	0.27	2.22	3.57
500	138	2.679	0.51	27.39	1.637	1.95	0.27	2.22	3.57
500	207	2.679	0.51	27.39	1.353	1.95	0.27	2.41	3.57
750	69	2.918	0.57	18.60	2.402	1.72	0.32	2.18	3.22
750	103	2.918	0.57	18.60	2.118	1.72	0.32	2.18	3.22
750	138	2.918	0.57	18.60	1.893	1.72	0.32	2.18	3.22
750	207	2.918	0.57	18.60	1.625	1.72	0.32	2.18	3.53
750	Open	2.918	0.57	18.60	1.004	1.72	0.32	2.37	3.53
1000	69	3.107	0.63	14.30	2.763	1.56	0.30	2.15	3.19
1000	103	3.107	0.63	14.30	2.397	1.56	0.30	2.15	3.19
1000	138	3.107	0.63	14.30	2.114	1.56	0.30	2.15	3.19
1000	207	3.107	0.63	14.30	1.777	1.56	0.30	2.15	3.50
1000	Open	3.107	0.63	14.30	1.006	1.56	0.30	2.34	3.50
1250	69	3.240	0.68	11.79	3.077	1.45	0.28	2.13	3.17
1250	103	3.240	0.68	11.79	2.638	1.45	0.28	2.13	3.17
1250	138	3.240	0.68	11.79	2.303	1.45	0.28	2.13	3.17
1250	207	3.240	0.68	11.79	1.907	1.45	0.28	2.13	3.48
1250	Open	3.240	0.68	11.79	1.008	1.45	0.28	2.32	3.48
1500	Open	3.360	0.72	10.16	1.010	1.36	0.27	2.31	3.46
1750	Open	3.470	0.76	9.03	1.013	1.29	0.26	2.29	3.45
2000	Open	3.573	0.80	8.18	1.015	1.22	0.26	2.28	3.43
2250	Open	3.668	0.83	7.60	1.017	1.17	0.25	2.27	3.42
2500	Open	3.759	0.86	7.10	1.019	1.13	0.24	2.25	3.41

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1370

69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - 1 Circuit - Three Cables - Spaced

25°C Earth Ambient

Size	Res	OD	Wd	Rac	Qs	Ri	Rj	Re @ 90 Rho & loss factor 75%	Re @ 90 Rho & loss factor 100%
			50°C - Copper Conductor - Concentric Strand						
500	69	2.679	0.51	27.39	1.989	1.95	0.27	2.22	3.57
500	103	2.679	0.51	27.39	1.795	1.95	0.27	2.22	3.57
500	138	2.679	0.51	27.39	1.637	1.95	0.27	2.22	3.57
500	207	2.679	0.51	27.39	1.353	1.95	0.27	2.41	3.57
750	69	2.918	0.57	18.60	2.402	1.72	0.32	2.18	3.22
750	103	2.918	0.57	18.60	2.118	1.72	0.32	2.18	3.22
750	138	2.918	0.57	18.60	1.893	1.72	0.32	2.18	3.22
750	207	2.918	0.57	18.60	1.625	1.72	0.32	2.18	3.53
750	Open	2.918	0.57	18.60	1.004	1.72	0.32	2.37	3.53
1000	69	3.107	0.63	14.30	2.763	1.56	0.30	2.15	3.19
1000	103	3.107	0.63	14.30	2.397	1.56	0.30	2.15	3.19
1000	138	3.107	0.63	14.30	2.114	1.56	0.30	2.15	3.19
1000	207	3.107	0.63	14.30	1.777	1.56	0.30	2.15	3.50
1000	Open	3.107	0.63	14.30	1.006	1.56	0.30	2.34	3.50
1250	69	3.240	0.68	11.79	3.077	1.45	0.28	2.13	3.17
1250	103	3.240	0.68	11.79	2.638	1.45	0.28	2.13	3.17
1250	138	3.240	0.68	11.79	2.303	1.45	0.28	2.13	3.17
1250	207	3.240	0.68	11.79	1.907	1.45	0.28	2.13	3.48
1250	Open	3.240	0.68	11.79	1.008	1.45	0.28	2.32	3.48
1500	Open	3.360	0.72	10.16	1.010	1.36	0.27	2.31	3.46
1750	Open	3.470	0.76	9.03	1.013	1.29	0.26	2.29	3.45
2000	Open	3.573	0.80	8.18	1.015	1.22	0.26	2.28	3.43
2250	Open	3.668	0.83	7.60	1.017	1.17	0.25	2.27	3.42
2500	Open	3.759	0.86	7.10	1.019	1.13	0.24	2.25	3.41

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - 2 Circuits - Six Cables - Spaced

25°C Earth Ambient

90°C - Copper Conductor - Concentric Strand

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 .0150 pf & Rho 60	90	120
						75% LF							
500	69	592	66	30.8	516	71	23.7	463	75	19.2	2.1	2.9	3.6
500	103	612	65	29.8	536	70	23.0	482	74	18.7	2.1	2.9	3.6
500	138	631	63	28.7	555	70	22.2	500	73	18.3	2.1	2.9	3.6
500	207	658	62	27.1	581	68	21.2	525	72	17.4	2.1	2.9	3.6
750	69	676	68	31.0	586	74	23.4	523	77	18.8	2.4	3.2	4.1
750	103	708	67	30.0	616	73	22.8	551	76	18.5	2.4	3.2	4.1
750	138	738	66	28.8	643	72	22.1	577	75	17.9	2.4	3.2	4.1
750	207	780	64	27.1	683	70	20.9	614	74	17.1	2.4	3.2	4.1
750	Open	917	58	21.3	818	65	17.1	744	69	14.3	2.4	3.2	4.1
1000	69	741	70	31.3	637	76	23.5	567	79	18.7	2.5	3.4	4.3
1000	103	782	69	30.4	675	75	22.7	601	78	18.2	2.5	3.4	4.3
1000	138	821	68	29.3	711	74	22.1	634	77	17.7	2.5	3.4	4.3
1000	207	876	66	27.5	763	72	21.0	683	76	17.0	2.5	3.4	4.3
1000	Open	1070	60	21.1	950	66	16.8	862	70	14.0	2.5	3.4	4.3
1250	69	788	72	31.7	674	77	23.5	598	80	18.6	2.6	3.6	4.6
1250	103	837	71	30.7	719	76	22.9	639	79	18.2	2.6	3.6	4.6
1250	138	884	70	29.6	761	75	22.2	678	78	17.7	2.6	3.6	4.6
1250	207	952	68	27.8	824	74	21.1	735	77	17.0	2.7	3.6	4.6
1250	Open	1199	61	21.0	1061	67	16.6	960	71	13.8	2.7	3.6	4.6
1500	Open	1310	62	20.9	1155	68	16.5	1043	72	13.5	2.8	3.8	4.9
1750	Open	1405	62	20.9	1237	69	16.3	1114	73	13.4	2.9	4.0	5.1
2000	Open	1491	63	20.7	1309	69	16.1	1177	73	13.3	3.0	4.1	5.3
2250	Open	1559	64	20.6	1366	70	16.0	1227	74	13.1	3.1	4.3	5.5
2500	Open	1626	64	20.5	1421	70	16.0	1275	74	13.0	3.2	4.4	5.6

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1372

69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - 2 Circuits - Six Cables - Spaced

25°C Earth Ambient

90°C - Copper Conductor - Concentric Strand

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 .0150 pf & Rho 60	90	120
						100% LF							
500	69	520	71	24.1	445	76	17.8	394	79	14.1	2.1	2.9	3.6
500	103	540	70	23.4	463	75	17.4	412	79	13.8	2.1	2.9	3.6
500	138	558	69	22.5	480	75	16.8	427	78	13.5	2.1	2.9	3.6
500	207	584	68	21.5	505	73	16.3	450	77	13.0	2.1	2.9	3.6
750	69	590	73	23.8	502	78	17.4	442	81	13.6	2.4	3.2	4.1
750	103	620	72	23.2	529	77	17.0	466	80	13.4	2.4	3.2	4.1
750	138	648	71	22.4	553	76	16.5	489	79	13.1	2.4	3.2	4.1
750	207	687	70	21.2	590	75	15.8	523	78	12.6	2.4	3.2	4.1
750	Open	822	65	17.3	717	71	13.4	642	74	10.9	2.4	3.2	4.1
1000	69	642	75	23.7	541	80	17.1	476	82	13.4	2.5	3.4	4.3
1000	103	679	74	23.1	575	79	16.7	506	81	13.2	2.5	3.4	4.3
1000	138	715	73	22.4	607	78	16.4	535	81	12.9	2.5	3.4	4.3
1000	207	767	72	21.3	655	77	15.7	578	80	12.4	2.5	3.4	4.3
1000	Open	954	66	17.0	829	72	12.9	741	75	10.4	2.5	3.4	4.3
1250	69	679	77	23.7	571	81	17.0	500	83	13.2	2.6	3.6	4.6
1250	103	724	76	23.1	610	80	16.6	535	82	13.0	2.6	3.6	4.6
1250	138	767	75	22.4	647	79	16.3	569	82	12.7	2.6	3.6	4.6
1250	207	828	73	21.3	703	78	15.6	619	81	12.3	2.7	3.6	4.6
1250	Open	1065	67	16.7	922	73	12.7	822	76	10.3	2.7	3.6	4.6
1500	Open	1160	68	16.6	1000	73	12.6	889	77	10.1	2.8	3.8	4.9
1750	Open	1241	69	16.4	1067	74	12.4	947	78	9.9	2.9	4.0	5.1
2000	Open	1313	69	16.2	1127	75	12.2	999	78	9.8	3.0	4.1	5.3
2250	Open	1371	70	16.1	1174	75	12.1	1039	78	9.7	3.1	4.3	5.5
2500	Open	1426	70	16.0	1219	76	12.0	1078	79	9.6	3.2	4.4	5.6

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - 2 Circuits - Six Cables - Spaced

25°C Earth Ambient

80°C - Copper Conductor - Concentric Strand

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 .0150 pf & Rho 60	90	120
						75% LF							
500	69	542	60	26.4	472	65	20.2	423	68	16.4	2.1	2.9	3.6
500	103	560	59	25.7	490	64	19.7	439	67	16.0	2.1	2.9	3.6
500	138	578	58	24.7	507	63	19.1	456	66	15.5	2.1	2.9	3.6
500	207	604	57	23.2	532	62	18.3	480	65	15.0	2.1	2.9	3.6
750	69	617	62	26.6	533	67	20.0	475	69	16.0	2.4	3.2	4.1
750	103	644	61	25.8	559	66	19.5	499	69	15.7	2.4	3.2	4.1
750	138	672	60	24.9	584	65	19.0	523	68	15.3	2.4	3.2	4.1
750	207	713	59	23.4	623	64	18.1	558	67	14.7	2.4	3.2	4.1
750	Open	853	53	18.1	760	59	14.5	690	63	12.0	2.4	3.2	4.1
1000	69	673	64	26.8	577	68	19.9	513	71	15.9	2.5	3.4	4.3
1000	103	709	63	26.1	610	67	19.5	542	70	15.6	2.5	3.4	4.3
1000	138	745	62	25.1	643	67	18.9	572	69	15.1	2.5	3.4	4.3
1000	207	798	61	23.7	692	66	17.9	618	68	14.5	2.5	3.4	4.3
1000	Open	994	54	17.8	882	60	14.3	798	64	11.8	2.5	3.4	4.3
1250	69	714	65	27.0	610	69	19.9	539	72	15.8	2.6	3.6	4.6
1250	103	757	64	26.3	648	69	19.5	574	71	15.4	2.6	3.6	4.6
1250	138	799	64	25.3	686	68	19.0	609	70	15.1	2.6	3.6	4.6
1250	207	864	62	23.9	745	67	18.0	663	69	14.5	2.7	3.6	4.6
1250	Open	1113	55	17.8	983	61	14.0	888	64	11.7	2.7	3.6	4.6
1500	Open	1215	56	17.7	1070	62	14.0	964	65	11.5	2.8	3.8	4.9
1750	Open	1302	57	17.6	1144	62	13.8	1028	66	11.3	2.9	4.0	5.1
2000	Open	1380	57	17.5	1209	63	13.7	1086	66	11.2	3.0	4.1	5.3
2250	Open	1442	58	17.5	1261	63	13.5	1131	66	11.0	3.1	4.3	5.4
2500	Open	1503	58	17.4	1311	64	13.4	1174	67	11.0	3.2	4.4	5.6

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1374

69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - 2 Circuits - Six Cables - Spaced

25°C Earth Ambient

80°C - Copper Conductor - Concentric Strand

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 .0150 pf & Rho 60	90	120
						100% LF							
500	69	476	65	20.5	407	69	15.1	360	71	12.0	2.1	2.9	3.6
500	103	494	64	20.1	423	68	14.8	374	71	11.8	2.1	2.9	3.6
500	138	511	63	19.4	439	67	14.5	390	70	11.5	2.1	2.9	3.6
500	207	536	62	18.5	462	66	14.0	411	69	11.1	2.1	2.9	3.6
750	69	537	66	20.3	455	70	14.8	401	72	11.7	2.4	3.2	4.1
750	103	563	66	19.9	479	70	14.5	422	72	11.4	2.4	3.2	4.1
750	138	589	65	19.2	502	69	14.1	443	71	11.3	2.4	3.2	4.1
750	207	627	64	18.3	537	68	13.6	475	71	10.7	2.4	3.2	4.1
750	Open	764	59	14.7	666	64	11.3	596	67	9.2	2.4	3.2	4.1
1000	69	583	68	20.3	490	72	14.6	430	73	11.4	2.5	3.4	4.3
1000	103	615	67	19.8	519	71	14.4	456	73	11.2	2.5	3.4	4.3
1000	138	648	67	19.2	548	70	14.0	482	73	10.9	2.5	3.4	4.3
1000	207	697	65	18.3	592	69	13.4	522	72	10.6	2.5	3.4	4.3
1000	Open	887	60	14.4	769	65	10.9	686	68	8.9	2.5	3.4	4.3
1250	69	615	69	20.3	515	72	14.5	450	74	11.2	2.6	3.6	4.6
1250	103	653	68	19.8	549	72	14.3	480	74	11.1	2.6	3.6	4.6
1250	138	692	68	19.2	583	71	13.9	511	73	10.8	2.6	3.6	4.6
1250	207	750	67	18.3	635	70	13.3	558	73	10.5	2.7	3.6	4.6
1250	Open	989	61	14.3	854	66	10.8	760	69	8.7	2.7	3.6	4.6
1500	Open	1075	61	14.1	926	66	10.7	822	69	8.5	2.8	3.8	4.9
1750	Open	1149	62	14.0	987	67	10.5	875	70	8.5	2.9	4.0	5.1
2000	Open	1215	63	13.8	1042	67	10.4	921	70	8.3	3.0	4.1	5.3
2250	Open	1268	63	13.7	1085	68	10.2	958	70	8.2	3.1	4.3	5.4
2500	Open	1318	63	13.6	1125	68	10.2	993	71	8.1	3.2	4.4	5.6

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - 2 Circuits - Six Cables - Spaced

25°C Earth Ambient

65°C - Copper Conductor - Concentric Strand

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 .0150 pf & Rho 60	90	120
						75% LF							
500	69	459	51	19.5	397	55	14.8	354	57	12.0	2.1	2.9	3.6
500	103	472	51	19.1	410	54	14.5	367	56	11.8	2.1	2.9	3.6
500	138	488	50	18.4	425	54	14.1	380	56	11.5	2.1	2.9	3.6
500	207	512	49	17.4	448	53	13.5	402	55	11.0	2.1	2.9	3.6
750	69	518	53	19.5	445	56	14.7	394	58	11.7	2.4	3.2	4.1
750	103	538	52	19.1	464	55	14.4	412	57	11.5	2.4	3.2	4.1
750	138	561	51	18.5	485	55	14.0	432	57	11.3	2.4	3.2	4.1
750	207	598	50	17.4	519	54	13.4	464	56	10.7	2.4	3.2	4.1
750	Open	737	46	13.1	655	50	10.5	593	53	8.8	2.4	3.2	4.1
1000	69	561	54	19.7	479	57	14.5	423	59	11.6	2.5	3.4	4.3
1000	103	588	53	19.3	503	57	14.3	445	58	11.4	2.5	3.4	4.3
1000	138	618	53	18.7	530	56	14.0	470	58	11.2	2.5	3.4	4.3
1000	207	665	52	17.7	573	55	13.3	509	57	10.7	2.5	3.4	4.3
1000	Open	859	47	13.0	759	51	10.3	684	53	8.5	2.5	3.4	4.3
1250	69	593	55	19.8	504	58	14.5	443	59	11.4	2.6	3.6	4.6
1250	103	624	54	19.5	532	57	14.3	468	59	11.3	2.6	3.6	4.6
1250	138	660	54	18.9	563	57	13.9	497	59	11.1	2.6	3.6	4.6
1250	207	716	53	17.8	614	56	13.3	544	58	10.6	2.6	3.6	4.6
1250	Open	959	47	13.0	844	51	10.3	759	54	8.4	2.7	3.6	4.6
1500	Open	1045	48	12.8	916	52	10.1	822	55	8.3	2.8	3.8	4.9
1750	Open	1120	49	12.9	979	52	10.0	876	55	8.1	2.9	4.0	5.1
2000	Open	1183	49	12.7	1033	53	9.9	922	55	8.1	3.0	4.1	5.3
2250	Open	1235	49	12.7	1075	53	9.8	959	56	8.0	3.1	4.3	5.4
2500	Open	1285	50	12.6	1116	53	9.8	993	56	7.9	3.2	4.4	5.6

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - 2 Circuits - Six Cables - Spaced

25°C Earth Ambient

65°C - Copper Conductor - Concentric Strand

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 .0150 pf & Rho 60	90	120
						100% LF							
500	69	402	54	15.1	342	57	11.1	301	59	8.8	2.1	2.9	3.6
500	103	415	54	15.0	353	57	11.0	312	59	8.7	2.1	2.9	3.6
500	138	430	53	14.5	367	56	10.7	326	58	8.7	2.1	2.9	3.6
500	207	453	52	13.8	389	56	10.3	344	58	8.3	2.1	2.9	3.6
750	69	450	56	14.9	380	58	10.9	333	60	8.5	2.4	3.2	4.1
750	103	469	55	14.7	397	58	10.7	348	60	8.4	2.4	3.2	4.1
750	138	491	55	14.3	416	58	10.5	366	59	8.2	2.4	3.2	4.1
750	207	525	54	13.6	447	57	10.1	394	59	8.0	2.4	3.2	4.1
750	Open	661	50	10.7	574	53	8.2	512	56	6.7	2.4	3.2	4.1
1000	69	485	57	14.9	406	59	10.7	354	61	8.4	2.5	3.4	4.3
1000	103	509	56	14.6	427	59	10.6	373	60	8.2	2.5	3.4	4.3
1000	138	537	56	14.3	451	59	10.3	395	60	8.1	2.5	3.4	4.3
1000	207	580	55	13.6	490	58	10.0	430	60	7.9	2.5	3.4	4.3
1000	Open	765	51	10.4	661	54	8.0	588	57	6.5	2.5	3.4	4.3
1250	69	510	58	14.9	425	60	10.6	370	61	8.3	2.6	3.6	4.6
1250	103	538	57	14.6	450	60	10.5	392	61	8.1	2.6	3.6	4.6
1250	138	570	57	14.3	477	59	10.3	416	61	8.0	2.6	3.6	4.6
1250	207	622	56	13.7	522	59	9.9	456	60	7.7	2.6	3.6	4.6
1250	Open	852	51	10.4	733	55	7.9	650	57	6.4	2.7	3.6	4.6
1500	Open	925	52	10.2	793	55	7.7	701	57	6.3	2.8	3.8	4.9
1750	Open	988	52	10.1	845	56	7.7	745	58	6.2	2.9	4.0	5.1
2000	Open	1042	53	10.0	889	56	7.6	783	58	6.1	3.0	4.1	5.3
2250	Open	1086	53	10.0	924	56	7.5	812	58	5.9	3.1	4.3	5.4
2500	Open	1127	53	10.0	958	57	7.4	841	59	5.9	3.2	4.4	5.6

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - 2 Circuits - Six Cables - Spaced

25°C Earth Ambient

50°C - Copper Conductor - Concentric Strand

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 .0150 pf & Rho 60	90	120
						75% LF							
500	69	356	42	12.3	306	44	9.3	271	45	7.4	2.1	2.9	3.6
500	103	365	42	12.1	314	44	9.1	278	45	7.4	2.1	2.9	3.6
500	138	377	41	11.8	325	44	9.0	289	45	7.3	2.1	2.9	3.6
500	207	397	41	11.1	344	43	8.6	306	44	7.0	2.1	2.9	3.6
750	69	398	43	12.3	339	45	9.0	298	46	7.2	2.4	3.2	4.1
750	103	411	43	12.0	351	45	9.0	309	46	7.2	2.4	3.2	4.1
750	138	429	42	11.8	367	44	8.8	323	46	7.1	2.4	3.2	4.1
750	207	459	42	11.1	394	44	8.4	348	45	6.8	2.4	3.2	4.1
750	Open	585	39	8.2	516	41	6.5	463	43	5.4	2.4	3.2	4.1
1000	69	430	44	12.3	363	45	9.0	317	47	7.0	2.5	3.4	4.3
1000	103	446	43	12.2	378	45	9.0	330	46	7.0	2.5	3.4	4.3
1000	138	468	43	11.8	397	45	8.7	348	46	6.9	2.5	3.4	4.3
1000	207	506	42	11.3	431	45	8.4	379	46	6.6	2.5	3.4	4.3
1000	Open	680	39	8.1	596	42	6.4	533	43	5.3	2.5	3.4	4.3
1250	69	451	44	12.4	379	46	9.0	330	47	7.0	2.6	3.6	4.6
1250	103	471	44	12.1	397	46	8.8	346	47	7.0	2.6	3.6	4.6
1250	138	497	44	11.9	420	45	8.7	366	47	6.8	2.6	3.6	4.6
1250	207	541	43	11.3	458	45	8.4	401	46	6.6	2.6	3.6	4.6
1250	Open	758	40	8.0	661	42	6.4	588	44	5.2	2.7	3.6	4.6
1500	Open	823	40	8.1	715	42	6.3	634	44	5.1	2.8	3.8	4.9
1750	Open	880	40	8.0	762	43	6.2	674	44	5.1	2.9	4.0	5.1
2000	Open	928	40	7.9	801	43	6.1	707	45	4.9	3.0	4.1	5.3
2250	Open	967	41	7.9	832	43	6.0	733	45	4.9	3.1	4.3	5.5
2500	Open	1005	41	7.8	862	43	6.0	757	45	4.9	3.2	4.4	5.6

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - 2 Circuits - Six Cables - Spaced

25°C Earth Ambient

50°C - Copper Conductor - Concentric Strand

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 .0150 pf & Rho 60	90	120
						100% LF							
500	69	312	44	9.6	263	46	7.0	229	47	5.6	2.1	2.9	3.6
500	103	320	44	9.6	270	45	7.0	236	47	5.6	2.1	2.9	3.6
500	138	331	43	9.3	280	45	6.8	245	46	5.4	2.1	2.9	3.6
500	207	350	43	8.8	298	45	6.6	261	46	5.3	2.1	2.9	3.6
750	69	346	45	9.4	289	46	6.8	251	47	5.4	2.4	3.2	4.1
750	103	358	44	9.3	299	46	6.8	260	47	5.2	2.4	3.2	4.1
750	138	374	44	9.2	314	46	6.7	273	47	5.2	2.4	3.2	4.1
750	207	402	44	8.8	338	45	6.4	295	47	5.1	2.4	3.2	4.1
750	Open	525	41	6.7	452	43	5.2	400	45	4.2	2.4	3.2	4.1
1000	69	370	45	9.3	307	47	6.6	265	48	5.2	2.5	3.4	4.3
1000	103	386	45	9.2	320	47	6.6	277	47	5.2	2.5	3.4	4.3
1000	138	406	45	9.1	337	46	6.5	292	47	5.0	2.5	3.4	4.3
1000	207	440	44	8.7	368	46	6.3	319	47	4.9	2.5	3.4	4.3
1000	Open	606	41	6.6	520	44	5.0	458	45	4.1	2.5	3.4	4.3
1250	69	387	46	9.3	319	47	6.6	275	48	5.1	2.6	3.6	4.6
1250	103	405	46	9.2	335	47	6.6	288	48	5.1	2.6	3.6	4.6
1250	138	428	45	9.1	354	47	6.5	306	48	5.0	2.6	3.6	4.6
1250	207	468	45	8.7	389	46	6.2	336	47	4.8	2.6	3.6	4.6
1250	Open	673	42	6.5	574	44	5.0	504	45	4.0	2.7	3.6	4.6
1500	Open	729	42	6.5	619	44	4.9	541	46	4.0	2.8	3.8	4.9
1750	Open	777	42	6.4	657	45	4.8	573	46	3.9	2.9	4.0	5.1
2000	Open	818	43	6.3	690	45	4.8	600	46	3.8	3.0	4.1	5.3
2250	Open	850	43	6.2	715	45	4.7	621	46	3.7	3.1	4.3	5.5
2500	Open	881	43	6.2	740	45	4.7	640	46	3.8	3.2	4.4	5.6

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - 2 Circuits - Six Cables - Spaced

25°C Earth Ambient

Total Watts/ft for 90°C - Copper Conductor - Concentric Strand

		60 Rho		90 Rho		120 Rho	
		75 LF	100 LF	75 LF	100 LF	75 LF	100 LF
Condr Size	Shield Res						
500	69	113.6	88.3	87.0	65.5	70.6	52.0
500	103	110.9	87.0	85.8	64.8	69.9	51.9
500	138	108.4	85.5	84.6	64.0	69.2	51.3
500	207	105.1	83.5	82.6	63.2	68.0	50.8
750	69	120.8	92.9	91.6	68.2	73.7	53.6
750	103	118.6	91.7	90.6	67.7	73.2	53.3
750	138	116.3	90.5	89.1	66.8	72.4	53.0
750	207	112.6	88.1	87.1	65.9	71.1	52.5
750	Open	97.6	79.1	78.4	61.0	65.5	49.6
1000	69	128.2	97.1	95.7	70.1	76.6	55.1
1000	103	125.8	95.8	94.7	69.7	75.8	54.9
1000	138	123.5	94.6	93.6	69.2	75.2	54.6
1000	207	119.5	92.5	91.6	68.5	74.1	54.2
1000	Open	102.5	82.2	81.6	63.0	67.8	51.1
1250	69	133.1	99.9	98.5	71.8	78.4	56.0
1250	103	130.8	98.9	97.6	71.4	77.9	55.8
1250	138	128.7	97.9	96.5	70.9	77.4	55.7
1250	207	125.1	95.6	94.7	70.1	76.2	55.2
1250	Open	106.4	84.8	84.2	64.6	69.7	52.2
1500	Open	109.8	87.0	86.3	65.8	71.2	52.9
1750	Open	112.6	88.9	88.3	66.9	72.5	53.7
2000	Open	115.3	90.5	90.0	67.9	73.7	54.4
2250	Open	117.4	91.9	91.3	68.7	74.6	54.9
2500	Open	119.6	93.2	92.6	69.5	75.5	55.5

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1380

69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - 2 Circuits - Six Cables - Spaced

25°C Earth Ambient

Total Watts/ft for 80°C - Copper Conductor - Concentric Strand

		60 Rho		90 Rho		120 Rho	
		75 LF	100 LF	75 LF	100 LF	75 LF	100 LF
Condr Size	Shield Res						
500	69	96.7	75.3	74.1	55.9	60.1	44.4
500	103	94.8	74.4	73.3	55.4	59.4	44.0
500	138	92.8	73.2	72.1	54.8	58.9	43.9
500	207	89.7	71.3	70.3	53.8	57.8	43.2
750	69	103.2	79.0	77.9	57.7	62.6	45.6
750	103	101.1	78.1	77.0	57.5	62.1	45.4
750	138	99.3	77.1	75.8	56.9	61.5	45.1
750	207	96.3	75.2	74.3	56.1	60.3	44.7
750	Open	82.6	67.0	66.3	51.7	55.3	42.1
1000	69	109.0	82.7	81.1	59.5	64.9	46.7
1000	103	107.3	81.7	80.4	59.2	64.3	46.6
1000	138	105.5	80.7	79.5	58.8	63.7	46.3
1000	207	102.2	78.9	77.8	58.0	62.8	45.9
1000	Open	86.6	69.7	69.0	53.3	57.2	43.2
1250	69	113.1	84.9	83.6	60.8	66.2	47.4
1250	103	111.5	84.0	82.8	60.6	65.8	47.3
1250	138	109.6	83.2	81.9	60.3	65.4	47.2
1250	207	106.7	81.4	80.4	59.5	64.5	46.9
1250	Open	89.9	71.9	71.0	54.6	58.7	44.1
1500	Open	92.8	73.6	73.0	55.7	60.0	44.8
1750	Open	95.3	75.2	74.6	56.7	61.1	45.5
2000	Open	97.4	76.6	75.9	57.6	62.2	46.0
2250	Open	99.2	77.8	77.0	58.3	63.0	46.6
2500	Open	101.1	78.9	78.2	58.9	63.7	47.1

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - 2 Circuits - Six Cables - Spaced

25°C Earth Ambient

Total Watts/ft for 65°C - Copper Conductor - Concentric Strand

		60 Rho		90 Rho		120 Rho	
		75 LF	100 LF	75 LF	100 LF	75 LF	100 LF
Condr Size	Shield Res						
500	69	71.3	55.4	54.1	40.9	43.7	32.4
500	103	69.9	54.7	53.5	40.4	43.5	32.3
500	138	68.6	54.0	52.8	40.1	42.8	32.3
500	207	66.4	52.7	51.6	39.6	42.1	31.7
750	69	75.8	58.0	56.8	42.4	45.3	33.3
750	103	74.4	57.4	56.2	42.1	45.1	33.1
750	138	73.1	56.8	55.5	41.7	44.7	33.1
750	207	71.0	55.5	54.3	41.2	44.1	32.8
750	Open	59.9	48.9	48.0	37.7	40.0	30.7
1000	69	79.7	60.5	59.1	43.5	46.9	34.0
1000	103	78.7	59.9	58.6	43.3	46.7	33.9
1000	138	77.6	59.5	58.0	43.1	46.5	33.9
1000	207	75.3	58.2	56.9	42.6	45.7	33.7
1000	Open	63.1	50.8	50.1	38.9	41.4	31.6
1250	69	82.7	62.2	60.9	44.5	47.9	34.7
1250	103	81.5	61.6	60.4	44.3	47.6	34.6
1250	138	80.6	61.2	59.8	44.1	47.5	34.5
1250	207	78.5	60.3	58.8	43.6	47.0	34.3
1250	Open	65.4	52.5	51.6	39.9	42.5	32.2
1500	Open	67.4	53.8	52.8	40.7	43.4	32.7
1750	Open	69.2	54.9	54.0	41.4	44.1	33.2
2000	Open	70.7	55.9	55.0	42.0	44.8	33.6
2250	Open	72.0	56.8	55.8	42.5	45.4	34.0
2500	Open	73.4	57.6	56.6	43.1	45.9	34.4

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - 2 Circuits - Six Cables - Spaced

25°C Earth Ambient

Total Watts/ft for 50°C - Copper Conductor - Concentric Strand

		60 Rho		90 Rho		120 Rho	
		75 LF	100 LF	75 LF	100 LF	75 LF	100 LF
Condr Size	Shield Res						
500	69	44.8	35.1	33.9	25.8	27.2	20.3
500	103	44.3	34.7	33.6	25.6	27.0	20.3
500	138	43.5	34.3	33.1	25.4	26.8	20.1
500	207	42.2	33.5	32.4	25.1	26.3	20.0
750	69	47.4	36.7	35.3	26.6	28.1	20.9
750	103	46.8	36.3	35.1	26.4	28.0	20.8
750	138	46.2	36.0	34.8	26.4	27.7	20.8
750	207	45.0	35.3	34.1	26.0	27.3	20.6
750	Open	37.4	30.8	29.9	23.7	24.7	19.3
1000	69	50.1	38.1	36.8	27.4	28.9	21.4
1000	103	49.3	37.9	36.5	27.2	28.7	21.4
1000	138	48.7	37.6	36.1	27.1	28.6	21.3
1000	207	47.6	36.9	35.5	26.9	28.3	21.2
1000	Open	39.3	32.0	31.1	24.6	25.6	19.9
1250	69	51.5	39.0	37.6	27.8	29.5	21.7
1250	103	51.0	38.8	37.4	27.8	29.4	21.6
1250	138	50.5	38.5	37.3	27.6	29.3	21.7
1250	207	49.4	38.0	36.5	27.5	29.0	21.5
1250	Open	40.8	33.0	32.0	25.1	26.2	20.3
1500	Open	42.0	33.9	32.8	25.6	26.7	20.6
1750	Open	43.1	34.6	33.4	26.0	27.2	20.9
2000	Open	44.0	35.3	34.0	26.5	27.6	21.2
2250	Open	44.8	35.8	34.5	26.8	27.9	21.4
2500	Open	45.6	36.3	34.9	27.1	28.1	21.6

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - 2 Circuits - Six Cables - Spaced

25°C Earth Ambient

Size	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	0.51	27.39	2.026	1.95	0.27	2.96	4.45
500	103	2.679	0.51	27.39	1.835	1.95	0.27	2.96	4.45
500	138	2.679	0.51	27.39	1.675	1.95	0.27	2.96	4.45
500	207	2.679	0.51	27.39	1.476	1.95	0.27	2.96	4.45
750	69	2.918	0.57	18.60	2.464	1.72	0.32	2.91	4.41
750	103	2.918	0.57	18.60	2.178	1.72	0.32	2.92	4.41
750	138	2.918	0.57	18.60	1.948	1.72	0.32	2.92	4.41
750	207	2.918	0.57	18.60	1.667	1.72	0.32	2.92	4.41
750	Open	2.918	0.57	18.60	1.003	1.72	0.32	2.92	4.41
1000	69	3.107	0.63	14.30	2.844	1.56	0.30	2.88	4.38
1000	103	3.107	0.63	14.30	2.482	1.56	0.30	2.88	4.38
1000	138	3.107	0.63	14.30	2.184	1.56	0.30	2.89	4.38
1000	207	3.107	0.63	14.30	1.831	1.56	0.30	2.89	4.38
1000	Open	3.107	0.63	14.30	1.005	1.56	0.30	2.89	4.38
1250	69	3.240	0.68	11.79	3.177	1.45	0.28	2.86	4.36
1250	103	3.240	0.68	11.79	2.741	1.45	0.28	2.86	4.36
1250	138	3.240	0.68	11.79	2.394	1.45	0.28	2.86	4.36
1250	207	3.240	0.68	11.79	1.972	1.45	0.28	2.87	4.36
1250	Open	3.240	0.68	11.79	1.006	1.45	0.28	2.87	4.36
1500	Open	3.360	0.72	10.16	1.008	1.36	0.27	2.85	4.35
1750	Open	3.470	0.76	9.03	1.010	1.29	0.26	2.84	4.33
2000	Open	3.573	0.80	8.18	1.011	1.22	0.26	2.83	4.32
2250	Open	3.668	0.83	7.60	1.018	1.17	0.25	2.80	4.30
2500	Open	3.759	0.86	7.10	1.021	1.13	0.24	2.79	4.29

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - 2 Circuits - Six Cables - Spaced

25°C Earth Ambient

Size	Res	OD	Wd	Rac	Qs	Ri	Rj	Re @ 90 Rho & loss factor 75%	100%
			80°C - Copper Conductor - Concentric Strand						
500	69	2.679	0.51	27.39	2.026	1.95	0.27	2.96	4.45
500	103	2.679	0.51	27.39	1.835	1.95	0.27	2.96	4.45
500	138	2.679	0.51	27.39	1.675	1.95	0.27	2.96	4.45
500	207	2.679	0.51	27.39	1.476	1.95	0.27	2.96	4.45
750	69	2.918	0.57	18.60	2.464	1.72	0.32	2.91	4.41
750	103	2.918	0.57	18.60	2.178	1.72	0.32	2.92	4.41
750	138	2.918	0.57	18.60	1.948	1.72	0.32	2.92	4.41
750	207	2.918	0.57	18.60	1.667	1.72	0.32	2.92	4.41
750	Open	2.918	0.57	18.60	1.003	1.72	0.32	2.92	4.41
1000	69	3.107	0.63	14.30	2.844	1.56	0.30	2.88	4.38
1000	103	3.107	0.63	14.30	2.482	1.56	0.30	2.88	4.38
1000	138	3.107	0.63	14.30	2.184	1.56	0.30	2.89	4.38
1000	207	3.107	0.63	14.30	1.831	1.56	0.30	2.89	4.38
1000	Open	3.107	0.63	14.30	1.005	1.56	0.30	2.89	4.38
1250	69	3.240	0.68	11.79	3.177	1.45	0.28	2.86	4.36
1250	103	3.240	0.68	11.79	2.741	1.45	0.28	2.86	4.36
1250	138	3.240	0.68	11.79	2.394	1.45	0.28	2.86	4.36
1250	207	3.240	0.68	11.79	1.972	1.45	0.28	2.87	4.36
1250	Open	3.240	0.68	11.79	1.006	1.45	0.28	2.87	4.36
1500	Open	3.360	0.72	10.16	1.008	1.36	0.27	2.85	4.35
1750	Open	3.470	0.76	9.03	1.010	1.29	0.26	2.84	4.33
2000	Open	3.573	0.80	8.18	1.011	1.22	0.26	2.83	4.32
2250	Open	3.668	0.83	7.60	1.018	1.17	0.25	2.80	4.30
2500	Open	3.759	0.86	7.10	1.021	1.13	0.24	2.79	4.29

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - 2 Circuits - Six Cables - Spaced

25°C Earth Ambient

Size	Res	OD	Wd	Rac	Qs	Ri	Rj	Re @ 90 Rho & loss factor 75%	100%
			65°C - Copper Conductor - Concentric Strand						
500	69	2.679	0.51	27.39	2.026	1.95	0.27	2.96	4.45
500	103	2.679	0.51	27.39	1.835	1.95	0.27	2.96	4.45
500	138	2.679	0.51	27.39	1.675	1.95	0.27	2.96	4.45
500	207	2.679	0.51	27.39	1.476	1.95	0.27	2.96	4.45
750	69	2.918	0.57	18.60	2.464	1.72	0.32	2.91	4.41
750	103	2.918	0.57	18.60	2.178	1.72	0.32	2.92	4.41
750	138	2.918	0.57	18.60	1.948	1.72	0.32	2.92	4.41
750	207	2.918	0.57	18.60	1.667	1.72	0.32	2.92	4.41
750	Open	2.918	0.57	18.60	1.003	1.72	0.32	2.92	4.41
1000	69	3.107	0.63	14.30	2.844	1.56	0.30	2.88	4.38
1000	103	3.107	0.63	14.30	2.482	1.56	0.30	2.88	4.38
1000	138	3.107	0.63	14.30	2.184	1.56	0.30	2.89	4.38
1000	207	3.107	0.63	14.30	1.831	1.56	0.30	2.89	4.38
1000	Open	3.107	0.63	14.30	1.005	1.56	0.30	2.89	4.38
1250	69	3.240	0.68	11.79	3.177	1.45	0.28	2.86	4.36
1250	103	3.240	0.68	11.79	2.741	1.45	0.28	2.86	4.36
1250	138	3.240	0.68	11.79	2.394	1.45	0.28	2.86	4.36
1250	207	3.240	0.68	11.79	1.972	1.45	0.28	2.87	4.36
1250	Open	3.240	0.68	11.79	1.006	1.45	0.28	2.87	4.36
1500	Open	3.360	0.72	10.16	1.008	1.36	0.27	2.85	4.35
1750	Open	3.470	0.76	9.03	1.010	1.29	0.26	2.84	4.33
2000	Open	3.573	0.80	8.18	1.011	1.22	0.26	2.83	4.32
2250	Open	3.668	0.83	7.60	1.018	1.17	0.25	2.80	4.30
2500	Open	3.759	0.86	7.10	1.021	1.13	0.24	2.79	4.29

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1386

69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - 2 Circuits - Six Cables - Spaced

25°C Earth Ambient

Size	Res	OD	Wd	Rac	Qs	Ri	Rj	Re @ 90 Rho & loss factor 75%	Re @ 90 Rho & loss factor 100%
				50°C - Copper Conductor - Concentric Strand					
500	69	2.679	0.51	27.39	2.026	1.95	0.27	2.96	4.45
500	103	2.679	0.51	27.39	1.835	1.95	0.27	2.96	4.45
500	138	2.679	0.51	27.39	1.675	1.95	0.27	2.96	4.45
500	207	2.679	0.51	27.39	1.476	1.95	0.27	2.96	4.45
750	69	2.918	0.57	18.60	2.464	1.72	0.32	2.91	4.41
750	103	2.918	0.57	18.60	2.178	1.72	0.32	2.92	4.41
750	138	2.918	0.57	18.60	1.948	1.72	0.32	2.92	4.41
750	207	2.918	0.57	18.60	1.667	1.72	0.32	2.92	4.41
750	Open	2.918	0.57	18.60	1.003	1.72	0.32	2.92	4.41
1000	69	3.107	0.63	14.30	2.844	1.56	0.30	2.88	4.38
1000	103	3.107	0.63	14.30	2.482	1.56	0.30	2.88	4.38
1000	138	3.107	0.63	14.30	2.184	1.56	0.30	2.89	4.38
1000	207	3.107	0.63	14.30	1.831	1.56	0.30	2.89	4.38
1000	Open	3.107	0.63	14.30	1.005	1.56	0.30	2.89	4.38
1250	69	3.240	0.68	11.79	3.177	1.45	0.28	2.86	4.36
1250	103	3.240	0.68	11.79	2.741	1.45	0.28	2.86	4.36
1250	138	3.240	0.68	11.79	2.394	1.45	0.28	2.86	4.36
1250	207	3.240	0.68	11.79	1.972	1.45	0.28	2.87	4.36
1250	Open	3.240	0.68	11.79	1.006	1.45	0.28	2.87	4.36
1500	Open	3.360	0.72	10.16	1.008	1.36	0.27	2.85	4.35
1750	Open	3.470	0.76	9.03	1.010	1.29	0.26	2.84	4.33
2000	Open	3.573	0.80	8.18	1.011	1.22	0.26	2.83	4.32
2250	Open	3.668	0.83	7.60	1.018	1.17	0.25	2.80	4.30
2500	Open	3.759	0.86	7.10	1.021	1.13	0.24	2.79	4.29

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69 kV Shielded Single Conductor Filled X L P E or E P R 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 .0150 pf No Sun 0 Ft/s	delta Td for .0150 pf No Sun 2 Ft/s
		90°C - Copper Conductor - Concentric Strand					
500	69	456	481	385	417	2.9	2.6
500	103	467	492	394	424	2.9	2.6
500	138	473	499	400	428	2.9	2.6
500	207	480	506	405	432	2.9	2.6
750	69	539	570	455	500	3.2	2.8
750	103	558	589	471	516	3.2	2.8
750	138	568	601	480	523	3.2	2.8
750	207	580	613	489	530	3.2	2.9
1000	69	601	637	507	558	3.3	3.0
1000	103	626	663	528	581	3.3	3.0
1000	138	640	678	541	594	3.3	3.0
1000	207	657	695	554	609	3.3	3.0
1250	69	645	685	544	600	3.5	3.1
1250	103	675	717	570	628	3.5	3.1
1250	138	694	736	585	645	3.5	3.1
1250	207	714	757	602	663	3.5	3.1
1500	69	717	752	605	654	3.3	3.0
1500	103	753	790	635	686	3.3	3.0
1500	138	775	813	654	706	3.3	3.0
1500	207	799	838	674	728	3.3	3.0
1750	69	745	783	629	680	3.4	3.1
1750	103	785	825	663	716	3.4	3.1
1750	138	810	850	683	739	3.4	3.1
1750	207	837	879	706	763	3.4	3.1
2000	69	769	809	649	703	3.4	3.1
2000	103	813	854	686	742	3.5	3.2
2000	138	839	882	708	766	3.5	3.2
2000	207	869	913	733	793	3.5	3.2
2250	69	787	829	664	719	3.5	3.2
2250	103	833	876	703	761	3.5	3.2
2250	138	862	906	727	787	3.5	3.2
2250	207	893	939	754	816	3.6	3.2
2500	69	804	847	678	735	3.6	3.3
2500	103	852	897	719	779	3.6	3.3
2500	138	882	928	744	806	3.6	3.3
2500	207	916	964	772	837	3.6	3.3

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1388

69 kV Shielded Single Conductor Filled X L P E or E P R 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	24.4	27.0	17.8	18.5
500	103	24.0	26.5	17.5	18.2
500	138	23.8	26.3	17.4	18.1
500	207	23.5	26.0	17.2	17.9
750	69	26.5	29.5	19.4	23.1
750	103	26.1	28.9	19.1	19.5
750	138	25.8	28.7	18.9	19.3
750	207	25.5	28.3	18.6	19.1
1000	69	28.5	31.8	20.8	24.8
1000	103	28.0	31.2	20.4	24.4
1000	138	27.6	30.8	20.3	24.1
1000	207	27.4	30.4	20.0	23.8
1250	69	29.9	33.5	21.8	26.1
1250	103	29.4	32.9	21.5	25.7
1250	138	29.2	32.6	21.3	25.4
1250	207	28.8	32.1	21.0	25.1
1500	69	34.1	37.4	24.9	28.7
1500	103	33.5	36.7	24.4	28.2
1500	138	33.1	36.3	24.2	27.9
1500	207	32.7	35.8	23.9	27.5
1750	69	35.3	38.8	25.8	29.8
1750	103	34.8	38.2	25.4	29.3
1750	138	34.4	37.7	25.1	29.0
1750	207	34.0	37.2	24.8	28.6
2000	69	36.4	40.0	26.5	30.8
2000	103	35.9	39.4	26.2	30.3
2000	138	35.5	39.0	25.9	29.9
2000	207	35.1	38.5	25.6	29.6
2250	69	37.3	41.1	27.2	31.5
2250	103	36.8	40.5	26.9	31.1
2250	138	36.5	40.1	26.6	30.8
2250	207	36.0	39.6	26.4	30.5
2500	69	38.2	42.1	27.9	32.3
2500	103	37.7	41.5	27.6	31.9
2500	138	37.4	41.1	27.3	31.6
2500	207	37.0	40.7	27.0	31.3

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69 kV Shielded Single Conductor Filled X L P E or E P R 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	0.51	27.80	1.267	1.320	1.95	.27	2.56	.00	1.97	1.40
500	103	2.679	7.98	0.51	27.80	1.184	1.237	1.95	.27	2.57	.00	1.98	1.40
500	138	2.679	7.98	0.51	27.80	1.139	1.192	1.95	.27	2.57	.00	1.98	1.40
500	207	2.679	7.98	0.51	27.80	1.094	1.146	1.95	.27	2.58	.00	1.98	1.40
750	69	2.918	7.98	0.57	19.26	1.391	1.478	1.72	.32	2.39	.00	1.95	1.40
750	103	2.918	7.98	0.57	19.26	1.270	1.357	1.72	.32	2.40	.00	1.95	1.40
750	138	2.918	7.98	0.57	19.26	1.204	1.291	1.72	.32	2.41	.00	1.96	1.40
750	207	2.918	7.98	0.57	19.26	1.137	1.224	1.72	.32	2.41	.00	1.96	1.40
1000	69	3.107	7.98	0.63	15.21	1.493	1.614	1.56	.30	2.27	.00	1.93	1.40
1000	103	3.107	7.98	0.63	15.21	1.340	1.462	1.56	.30	2.28	.00	1.93	1.40
1000	138	3.107	7.98	0.63	15.21	1.257	1.378	1.56	.30	2.29	.00	1.94	1.40
1000	207	3.107	7.98	0.63	15.21	1.173	1.294	1.56	.30	2.30	.00	1.94	1.40
1250	69	3.240	7.98	0.68	12.94	1.574	1.726	1.45	.28	2.19	.00	1.91	1.40
1250	103	3.240	7.98	0.68	12.94	1.396	1.548	1.45	.28	2.20	.00	1.92	1.40
1250	138	3.240	7.98	0.68	12.94	1.299	1.451	1.45	.28	2.21	.00	1.92	1.40
1250	207	3.240	7.98	0.68	12.94	1.201	1.353	1.45	.28	2.22	.00	1.93	1.40
1500	69	3.360	10.02	0.72	11.52	1.640	1.800	1.36	.27	2.01	.00	1.56	1.18
1500	103	3.360	10.02	0.72	11.52	1.442	1.602	1.36	.27	2.02	.00	1.56	1.18
1500	138	3.360	10.02	0.72	11.52	1.334	1.493	1.36	.27	2.03	.00	1.56	1.19
1500	207	3.360	10.02	0.72	11.52	1.225	1.384	1.36	.27	2.04	.00	1.57	1.19
1750	69	3.470	10.02	0.76	10.57	1.693	1.876	1.29	.26	1.96	.00	1.55	1.18
1750	103	3.470	10.02	0.76	10.57	1.478	1.662	1.29	.26	1.97	.00	1.55	1.18
1750	138	3.470	10.02	0.76	10.57	1.361	1.544	1.29	.26	1.98	.00	1.55	1.18
1750	207	3.470	10.02	0.76	10.57	1.243	1.426	1.29	.26	1.98	.00	1.56	1.18
2000	69	3.573	10.02	0.80	9.85	1.739	1.945	1.22	.26	1.91	.00	1.54	1.18
2000	103	3.573	10.02	0.80	9.85	1.510	1.716	1.22	.26	1.92	.00	1.54	1.18
2000	138	3.573	10.02	0.80	9.85	1.385	1.591	1.22	.26	1.93	.00	1.55	1.18
2000	207	3.573	10.02	0.80	9.85	1.259	1.465	1.22	.26	1.94	.00	1.55	1.18
2250	69	3.668	10.02	0.83	9.37	1.773	1.998	1.17	.25	1.87	.00	1.54	1.18
2250	103	3.668	10.02	0.83	9.37	1.533	1.758	1.17	.25	1.88	.00	1.54	1.18
2250	138	3.668	10.02	0.83	9.37	1.402	1.628	1.17	.25	1.89	.00	1.54	1.18
2250	207	3.668	10.02	0.83	9.37	1.270	1.496	1.17	.25	1.90	.00	1.54	1.18
2500	69	3.759	10.02	0.86	8.96	1.804	2.049	1.13	.24	1.84	.00	1.53	1.18
2500	103	3.759	10.02	0.86	8.96	1.554	1.799	1.13	.24	1.85	.00	1.53	1.18
2500	138	3.759	10.02	0.86	8.96	1.418	1.663	1.13	.24	1.86	.00	1.53	1.18
2500	207	3.759	10.02	0.86	8.96	1.281	1.526	1.13	.24	1.86	.00	1.54	1.18

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1390

69 kV Shielded Single Conductor Filled X L P E or E P R 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 .0150 pf & Rho 60	90	120
		90°C - Aluminum Conductor - Concentric Strand								
500	69	439	409	411	374	387	346	2.6	3.1	3.7
500	103	451	420	422	384	398	356	2.7	3.2	3.7
500	138	460	429	431	393	407	364	2.7	3.2	3.7
500	207	471	441	443	404	418	375	2.7	3.2	3.7
750	69	520	483	484	438	454	403	2.8	3.4	4.0
750	103	540	501	503	455	472	419	2.8	3.4	4.0
750	138	556	515	518	469	487	433	2.9	3.5	4.1
750	207	575	535	538	488	506	451	2.9	3.5	4.1
1000	69	584	540	541	487	505	446	3.0	3.6	4.3
1000	103	612	565	567	511	530	468	3.0	3.6	4.3
1000	138	634	585	588	530	550	487	3.0	3.7	4.4
1000	207	661	612	615	555	576	511	3.1	3.7	4.4
1000	Open	746	695	698	635	657	587	3.1	3.7	4.4
1250	69	634	584	585	525	544	479	3.1	3.8	4.5
1250	103	668	616	618	554	576	507	3.1	3.8	4.5
1250	138	697	641	644	578	601	529	3.2	3.9	4.6
1250	207	732	675	679	610	634	560	3.2	3.9	4.6
1250	Open	844	784	788	714	740	659	3.2	3.9	4.6
1500	69	675	620	621	555	577	506	3.2	4.0	4.7
1500	103	716	658	660	590	613	539	3.2	4.0	4.7
1500	138	750	688	692	618	644	565	3.3	4.1	4.8
1500	207	793	729	733	657	683	601	3.3	4.1	4.8
1500	Open	932	863	867	784	813	722	3.4	4.1	4.9
1750	69	710	650	651	581	604	529	3.3	4.1	4.9
1750	103	757	694	695	621	645	565	3.3	4.1	4.9
1750	138	796	728	732	653	680	595	3.3	4.2	5.0
1750	207	846	775	779	697	725	636	3.4	4.2	5.0
1750	Open	1011	935	939	847	878	778	3.5	4.3	5.1
2000	Open	1083	999	1003	903	937	828	3.6	4.4	5.3
2250	Open	1143	1053	1057	950	986	870	3.7	4.6	5.4
2500	Open	1203	1106	1111	997	1035	911	3.8	4.7	5.6

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69 kV Shielded Single Conductor Filled X L P E or E P R 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 for 90°C - Aluminum Conductor - Concentric Strand							
500	69	40.5	35.4	35.7	29.8	31.8	25.8
500	103	39.8	34.7	35.0	29.3	31.3	25.4
500	138	39.0	34.2	34.5	28.9	30.9	25.0
500	207	38.0	33.5	33.8	28.3	30.2	24.6
750	69	43.7	38.0	38.1	31.5	33.7	27.0
750	103	42.9	37.2	37.5	31.0	33.2	26.5
750	138	42.2	36.4	36.8	30.5	32.8	26.3
750	207	40.9	35.7	36.1	30.0	32.1	25.9
1000	69	46.6	40.1	40.3	33.0	35.3	28.0
1000	103	45.9	39.4	39.6	32.5	34.9	27.6
1000	138	45.0	38.6	39.0	32.0	34.3	27.3
1000	207	43.6	37.6	38.0	31.3	33.5	26.8
1000	Open	39.9	34.9	35.2	29.4	31.4	25.4
1250	69	48.7	41.6	41.8	34.0	36.4	28.7
1250	103	47.8	40.9	41.2	33.5	36.0	28.4
1250	138	47.1	40.1	40.5	33.0	35.5	28.0
1250	207	45.6	39.1	39.5	32.3	34.7	27.5
1250	Open	41.5	36.0	36.4	30.2	32.3	26.1
1500	69	50.4	42.9	43.0	34.8	37.4	29.3
1500	103	49.6	42.2	42.5	34.4	36.9	29.0
1500	138	48.8	41.4	41.9	33.8	36.5	28.6
1500	207	47.3	40.3	40.8	33.2	35.7	28.1
1500	Open	42.8	37.0	37.4	30.9	33.1	26.6
1750	69	51.9	43.9	44.0	35.5	38.2	29.8
1750	103	51.1	43.3	43.4	35.1	37.7	29.5
1750	138	50.3	42.4	42.9	34.6	37.3	29.1
1750	207	48.8	41.4	41.8	33.9	36.5	28.6
1750	Open	44.0	38.0	38.3	31.6	33.8	27.0
2000	Open	45.1	38.7	39.0	32.1	34.3	27.3
2250	Open	46.0	39.5	39.7	32.6	34.9	27.7
2500	Open	46.9	40.1	40.4	33.1	35.4	28.0

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1392

69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable in Underground Duct Bank - 1 Circuit - Three Cables - 12 in Spacing

25°C Earth Ambient

Size	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 - Aluminum Conductor - Concentric Strand							
500	69	2.679	5.05	0.51	44.70	1.550	1.95	0.27	1.49	0.24	2.03	3.30
500	103	2.679	5.05	0.51	44.70	1.407	1.95	0.27	1.50	0.24	2.11	3.30
500	138	2.679	5.05	0.51	44.70	1.328	1.95	0.27	1.50	0.24	2.11	3.30
500	207	2.679	5.05	0.51	44.70	1.233	1.95	0.27	1.51	0.24	2.11	3.30
750	69	2.918	5.05	0.57	30.02	1.785	1.72	0.32	1.36	0.24	2.03	3.16
750	103	2.918	5.05	0.57	30.02	1.615	1.72	0.32	1.37	0.24	2.03	3.30
750	138	2.918	5.05	0.57	30.02	1.463	1.72	0.32	1.37	0.24	2.11	3.30
750	207	2.918	5.05	0.57	30.02	1.327	1.72	0.32	1.38	0.24	2.11	3.30
1000	69	3.107	5.05	0.63	22.74	2.000	1.56	0.30	1.27	0.24	2.03	3.16
1000	103	3.107	5.05	0.63	22.74	1.778	1.56	0.30	1.28	0.24	2.03	3.30
1000	138	3.107	5.05	0.63	22.74	1.585	1.56	0.30	1.28	0.24	2.11	3.30
1000	207	3.107	5.05	0.63	22.74	1.412	1.56	0.30	1.29	0.24	2.11	3.30
1000	Open	3.107	5.05	0.63	22.74	1.002	1.56	0.30	1.31	0.24	2.11	3.30
1250	69	3.240	5.05	0.68	18.39	2.197	1.45	0.28	1.21	0.24	2.03	3.16
1250	103	3.240	5.05	0.68	18.39	1.927	1.45	0.28	1.22	0.24	2.03	3.30
1250	138	3.240	5.05	0.68	18.39	1.696	1.45	0.28	1.22	0.24	2.11	3.30
1250	207	3.240	5.05	0.68	18.39	1.489	1.45	0.28	1.23	0.24	2.11	3.30
1250	Open	3.240	5.05	0.68	18.39	1.003	1.45	0.28	1.26	0.24	2.11	3.30
1500	69	3.360	5.05	0.72	15.55	2.377	1.36	0.27	1.17	0.24	2.03	3.16
1500	103	3.360	5.05	0.72	15.55	2.062	1.36	0.27	1.17	0.24	2.03	3.30
1500	138	3.360	5.05	0.72	15.55	1.796	1.36	0.27	1.18	0.24	2.11	3.30
1500	207	3.360	5.05	0.72	15.55	1.559	1.36	0.27	1.18	0.24	2.11	3.30
1500	Open	3.360	5.05	0.72	15.55	1.004	1.36	0.27	1.21	0.24	2.11	3.30
1750	69	3.470	5.05	0.76	13.54	2.542	1.29	0.26	1.13	0.24	2.03	3.16
1750	103	3.470	5.05	0.76	13.54	2.184	1.29	0.26	1.13	0.24	2.03	3.30
1750	138	3.470	5.05	0.76	13.54	1.886	1.29	0.26	1.14	0.24	2.11	3.30
1750	207	3.470	5.05	0.76	13.54	1.622	1.29	0.26	1.14	0.24	2.11	3.30
1750	Open	3.470	5.05	0.76	13.54	1.005	1.29	0.26	1.17	0.24	2.11	3.30
2000	Open	3.573	5.05	0.80	12.06	1.006	1.22	0.26	1.13	0.24	2.11	3.30
2250	Open	3.668	5.05	0.83	11.02	1.007	1.17	0.25	1.10	0.24	2.11	3.30
2500	Open	3.759	5.05	0.86	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 Filled X L P E or E P R 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 .0150 pf & Rho 60	90	120
		90°C - Aluminum Conductor - Concentric Strand								
500	69	397	356	356	311	325	278	3.6	4.7	5.8
500	103	408	366	367	320	335	287	3.6	4.7	5.8
500	138	417	375	375	328	342	294	3.6	4.7	5.8
500	207	428	385	385	337	352	303	3.6	4.7	5.8
750	69	470	418	418	362	379	322	4.0	5.2	6.5
750	103	488	435	435	378	395	337	4.0	5.2	6.5
750	138	502	448	448	390	407	348	4.0	5.2	6.5
750	207	520	465	465	405	423	362	4.0	5.2	6.5
1000	69	526	466	465	401	420	356	4.2	5.6	7.0
1000	103	551	489	488	421	441	374	4.2	5.6	7.0
1000	138	571	507	506	438	458	389	4.2	5.6	7.0
1000	207	595	530	530	459	479	408	4.2	5.6	7.0
1000	Open	665	596	595	519	541	463	4.3	5.6	7.0
1250	69	571	503	502	431	452	381	4.5	5.9	7.4
1250	103	602	531	531	456	478	404	4.5	5.9	7.4
1250	138	626	554	553	476	498	422	4.5	5.9	7.4
1250	207	658	583	582	502	525	446	4.5	5.9	7.4
1250	Open	748	669	667	580	605	517	4.5	6.0	7.4
1500	69	607	533	532	455	478	402	4.7	6.2	7.8
1500	103	644	567	566	485	509	428	4.7	6.2	7.8
1500	138	673	593	592	509	533	450	4.7	6.2	7.8
1500	207	711	628	627	539	565	477	4.7	6.3	7.8
1500	Open	823	733	731	634	661	563	4.7	6.3	7.8
1750	69	638	559	558	475	499	419	4.9	6.5	8.2
1750	103	680	597	596	509	534	449	4.9	6.5	8.2
1750	138	714	627	626	536	562	473	4.9	6.5	8.2
1750	207	757	667	665	571	598	504	4.9	6.5	8.2
1750	Open	889	791	788	683	711	605	4.9	6.5	8.2
2000	Open	949	842	839	726	755	641	5.1	6.8	8.5
2250	Open	999	885	881	760	792	671	5.2	7.0	8.9
2500	Open	1048	927	922	794	828	701	5.4	7.3	9.2

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69 kV Shielded Single Conductor Filled X L P E or E P R 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 for 90°C - Aluminum Conductor - Concentric Strand							
500	69	64.4	52.4	52.4	40.7	44.2	33.1
500	103	63.3	51.5	51.8	40.1	43.7	32.9
500	138	62.6	51.2	51.2	39.9	43.1	32.6
500	207	61.6	50.4	50.4	39.4	42.7	32.4
750	69	68.7	55.1	55.1	42.2	45.9	34.1
750	103	67.4	54.3	54.3	41.8	45.4	33.9
750	138	66.4	53.6	53.6	41.4	44.8	33.7
750	207	65.2	52.8	52.8	40.9	44.3	33.4
1000	69	72.1	57.4	57.2	43.5	47.4	35.1
1000	103	70.8	56.6	56.3	42.9	46.7	34.6
1000	138	69.9	55.9	55.7	42.7	46.3	34.5
1000	207	68.3	55.0	55.0	42.2	45.6	34.1
1000	Open	64.3	52.4	52.2	40.6	43.8	33.1
1250	69	74.8	59.0	58.7	44.4	48.4	35.6
1250	103	73.4	58.0	58.0	43.8	47.8	35.3
1250	138	72.1	57.4	57.2	43.4	47.1	35.0
1250	207	70.8	56.5	56.3	42.9	46.6	34.7
1250	Open	66.1	53.7	53.4	41.3	44.6	33.7
1500	69	76.7	60.2	60.0	45.0	49.2	36.1
1500	103	75.4	59.4	59.2	44.6	48.7	35.7
1500	138	74.2	58.6	58.4	44.3	48.2	35.6
1500	207	72.8	57.7	57.5	43.6	47.5	35.1
1500	Open	67.8	54.7	54.4	42.0	45.3	34.0
1750	69	78.5	61.3	61.1	45.5	49.8	36.4
1750	103	77.0	60.4	60.2	45.2	49.3	36.2
1750	138	76.1	59.7	59.5	44.9	48.9	35.9
1750	207	74.4	58.8	58.5	44.3	48.2	35.5
1750	Open	69.2	55.7	55.3	42.7	45.9	34.5
2000	Open	70.4	56.4	56.1	43.2	46.3	34.7
2250	Open	71.5	57.2	56.7	43.5	46.8	35.0
2500	Open	72.5	57.9	57.3	43.8	47.2	35.3

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

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

25°C Earth Ambient

Size	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 - Aluminum Conductor - Concentric Strand							
500	69	2.679	5.05	0.51	44.70	1.456	1.95	0.27	1.44	0.24	4.00	6.34
500	103	2.679	5.05	0.51	44.70	1.353	1.95	0.27	1.45	0.24	4.00	6.34
500	138	2.679	5.05	0.51	44.70	1.279	1.95	0.27	1.45	0.24	4.00	6.34
500	207	2.679	5.05	0.51	44.70	1.194	1.95	0.27	1.46	0.24	4.00	6.34
750	69	2.918	5.05	0.57	30.02	1.646	1.72	0.32	1.32	0.24	4.00	6.34
750	103	2.918	5.05	0.57	30.02	1.496	1.72	0.32	1.32	0.24	4.00	6.34
750	138	2.918	5.05	0.57	30.02	1.391	1.72	0.32	1.32	0.24	4.00	6.34
750	207	2.918	5.05	0.57	30.02	1.271	1.72	0.32	1.33	0.24	4.00	6.34
1000	69	3.107	5.05	0.63	22.74	1.819	1.56	0.30	1.23	0.24	4.00	6.34
1000	103	3.107	5.05	0.63	22.74	1.625	1.56	0.30	1.24	0.24	4.00	6.34
1000	138	3.107	5.05	0.63	22.74	1.492	1.56	0.30	1.24	0.24	4.00	6.34
1000	207	3.107	5.05	0.63	22.74	1.340	1.56	0.30	1.25	0.24	4.00	6.34
1000	Open	3.107	5.05	0.63	22.74	1.002	1.56	0.30	1.26	0.24	4.00	6.34
1250	69	3.240	5.05	0.68	18.39	1.976	1.45	0.28	1.18	0.24	4.00	6.34
1250	103	3.240	5.05	0.68	18.39	1.741	1.45	0.28	1.18	0.24	4.00	6.34
1250	138	3.240	5.05	0.68	18.39	1.581	1.45	0.28	1.19	0.24	4.00	6.34
1250	207	3.240	5.05	0.68	18.39	1.402	1.45	0.28	1.19	0.24	4.00	6.34
1250	Open	3.240	5.05	0.68	18.39	1.003	1.45	0.28	1.21	0.24	4.00	6.34
1500	69	3.360	5.05	0.72	15.55	2.118	1.36	0.27	1.13	0.24	4.00	6.34
1500	103	3.360	5.05	0.72	15.55	1.846	1.36	0.27	1.14	0.24	4.00	6.34
1500	138	3.360	5.05	0.72	15.55	1.662	1.36	0.27	1.14	0.24	4.00	6.34
1500	207	3.360	5.05	0.72	15.55	1.457	1.36	0.27	1.15	0.24	4.00	6.34
1500	Open	3.360	5.05	0.72	15.55	1.004	1.36	0.27	1.16	0.24	4.00	6.34
1750	69	3.470	5.05	0.76	13.54	2.247	1.29	0.26	1.10	0.24	4.00	6.34
1750	103	3.470	5.05	0.76	13.54	1.940	1.29	0.26	1.10	0.24	4.00	6.34
1750	138	3.470	5.05	0.76	13.54	1.734	1.29	0.26	1.10	0.24	4.00	6.34
1750	207	3.470	5.05	0.76	13.54	1.506	1.29	0.26	1.11	0.24	4.00	6.34
1750	Open	3.470	5.05	0.76	13.54	1.005	1.29	0.26	1.13	0.24	4.00	6.34
2000	Open	3.573	5.05	0.80	12.06	1.006	1.22	0.26	1.09	0.24	4.00	6.34
2250	Open	3.668	5.05	0.83	11.02	1.007	1.17	0.25	1.06	0.24	4.00	6.34
2500	Open	3.759	5.05	0.86	10.12	1.008	1.13	0.24	1.04	0.24	4.00	6.34

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1396

69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - Triplexed - Single Circuit

25°C Earth Ambient

90°C - Aluminum Conductor - Concentric Strand

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 .0150 pf & Rho 60	90	120
						75% LF							
500	69	537	61	40.0	477	67	31.9	434	71	26.6	2.3	3.2	4.0
500	103	542	61	39.5	483	67	31.5	439	71	26.3	2.3	3.2	4.0
500	138	545	60	39.3	485	66	31.4	442	71	26.2	2.3	3.2	4.0
500	207	548	60	38.9	488	66	31.3	445	70	26.1	2.3	3.2	4.0
750	69	663	63	39.6	586	68	31.3	531	72	25.9	2.5	3.5	4.4
750	103	672	62	38.9	596	68	30.8	540	72	25.7	2.5	3.5	4.4
750	138	678	62	38.5	601	68	30.7	546	72	25.5	2.5	3.5	4.4
750	207	683	61	38.2	607	67	30.4	551	71	25.3	2.5	3.5	4.4
1000	69	770	64	39.7	678	70	31.1	612	74	25.6	2.7	3.7	4.7
1000	103	784	63	39.0	692	69	30.7	626	73	25.3	2.7	3.7	4.7
1000	138	793	63	38.6	700	69	30.4	634	73	25.2	2.7	3.7	4.7
1000	207	801	63	38.1	709	68	30.1	642	72	24.9	2.7	3.7	4.7
1250	69	859	65	40.1	754	71	31.2	678	75	25.6	2.8	3.9	4.9
1250	103	879	65	39.2	773	70	30.7	697	74	25.3	2.8	3.9	4.9
1250	138	891	64	38.8	784	70	30.4	708	74	25.0	2.8	3.9	4.9
1250	207	903	64	38.3	796	69	30.1	719	73	24.8	2.8	3.9	4.9
1500	69	936	66	40.3	818	72	31.2	735	76	25.5	2.9	4.0	5.1
1500	103	961	66	39.4	843	71	30.7	758	75	25.1	2.9	4.0	5.1
1500	138	976	65	38.9	857	71	30.3	772	74	24.9	2.9	4.0	5.1
1500	207	992	64	38.3	872	70	29.9	786	74	24.6	2.9	4.0	5.1
1750	69	1003	67	40.5	874	73	31.1	784	76	25.4	3.0	4.2	5.4
1750	103	1034	66	39.5	904	72	30.6	812	75	25.0	3.0	4.2	5.4
1750	138	1052	66	39.0	921	72	30.2	828	75	24.8	3.0	4.2	5.4
1750	207	1071	65	38.4	939	71	29.9	846	75	24.5	3.0	4.2	5.4
2000	69	1061	68	40.6	923	74	31.1	826	77	25.3	3.1	4.3	5.5
2000	103	1097	67	39.6	957	73	30.5	858	76	24.9	3.1	4.3	5.5
2000	138	1119	67	39.0	977	72	30.1	878	76	24.6	3.1	4.3	5.5
2000	207	1141	66	38.3	999	72	29.8	898	75	24.3	3.1	4.3	5.5
2250	69	1110	69	40.6	963	74	31.0	861	77	25.1	3.2	4.5	5.7
2250	103	1150	68	39.6	1001	73	30.4	897	77	24.7	3.2	4.5	5.7
2250	138	1174	67	39.0	1024	73	30.1	918	76	24.5	3.2	4.5	5.7
2250	207	1200	66	38.3	1049	72	29.6	942	76	24.2	3.2	4.5	5.7
2500	69	1156	70	40.7	1001	75	30.9	894	78	25.0	3.3	4.6	5.9
2500	103	1201	68	39.6	1044	74	30.3	933	77	24.6	3.3	4.6	5.9
2500	138	1228	68	38.9	1069	73	29.9	958	76	24.3	3.3	4.6	5.9
2500	207	1257	67	38.2	1097	72	29.5	984	76	24.1	3.3	4.6	5.9

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - Triplexed - Single Circuit

25°C Earth Ambient

90°C - Aluminum Conductor - Concentric Strand

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 .0150 pf & Rho 60	90	120
					100% LF								
500	69	486	66	33.1	422	72	25.2	377	76	20.4	2.3	3.2	4.0
500	103	491	66	32.7	427	72	25.0	382	75	20.3	2.3	3.2	4.0
500	138	494	66	32.5	430	72	24.9	384	75	20.2	2.3	3.2	4.0
500	207	497	65	32.3	433	71	24.8	387	75	20.1	2.3	3.2	4.0
750	69	596	68	32.3	514	73	24.4	458	77	19.6	2.5	3.5	4.4
750	103	605	67	31.8	523	73	24.2	466	77	19.5	2.5	3.5	4.4
750	138	611	67	31.6	529	73	24.0	471	76	19.4	2.5	3.5	4.4
750	207	616	67	31.3	534	72	23.8	476	76	19.3	2.5	3.5	4.4
1000	69	687	69	32.0	590	75	23.9	524	78	19.1	2.7	3.7	4.7
1000	103	702	69	31.5	604	74	23.7	536	78	19.0	2.7	3.7	4.7
1000	138	710	68	31.2	612	74	23.5	544	77	18.9	2.7	3.7	4.7
1000	207	719	68	30.9	620	74	23.4	551	77	18.8	2.7	3.7	4.7
1250	69	763	71	31.9	653	76	23.8	577	79	18.9	2.8	3.9	4.9
1250	103	783	70	31.4	671	75	23.5	594	78	18.7	2.8	3.9	4.9
1250	138	794	69	31.1	681	75	23.3	604	78	18.6	2.8	3.9	4.9
1250	207	806	69	30.8	693	74	23.1	614	78	18.5	2.8	3.9	4.9
1500	69	827	72	31.9	705	77	23.6	622	80	18.7	2.9	4.0	5.1
1500	103	852	71	31.3	728	76	23.3	643	79	18.5	2.9	4.0	5.1
1500	138	866	70	30.9	741	76	23.1	656	79	18.4	2.9	4.0	5.1
1500	207	882	70	30.6	756	75	22.9	669	78	18.3	2.9	4.0	5.1
1750	69	883	73	31.8	750	77	23.4	661	80	18.5	3.0	4.2	5.4
1750	103	912	72	31.1	777	77	23.0	686	80	18.3	3.0	4.2	5.4
1750	138	930	71	30.8	793	76	22.9	701	79	18.2	3.0	4.2	5.4
1750	207	948	71	30.5	811	76	22.7	717	79	18.0	3.0	4.2	5.4
2000	69	931	73	31.6	789	78	23.2	694	81	18.3	3.1	4.3	5.5
2000	103	965	72	31.0	820	77	22.8	723	80	18.1	3.1	4.3	5.5
2000	138	986	72	30.7	839	77	22.6	740	80	18.0	3.1	4.3	5.5
2000	207	1008	71	30.2	860	76	22.4	759	79	17.9	3.1	4.3	5.5
2250	69	970	74	31.4	820	78	23.0	721	81	18.1	3.2	4.5	5.7
2250	103	1009	73	30.8	856	78	22.6	753	81	17.9	3.2	4.5	5.7
2250	138	1032	72	30.4	877	77	22.4	772	80	17.8	3.2	4.5	5.7
2250	207	1057	72	30.1	900	77	22.2	793	80	17.7	3.2	4.5	5.7
2500	69	1007	74	31.3	850	79	22.8	746	82	17.9	3.3	4.6	5.9
2500	103	1050	74	30.7	889	78	22.5	781	81	17.7	3.3	4.6	5.9
2500	138	1076	73	30.3	912	78	22.2	802	81	17.6	3.3	4.6	5.9
2500	207	1104	72	29.8	938	77	22.0	826	80	17.4	3.3	4.6	5.9

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - Triplexed - Single Circuit

25°C Earth Ambient

80°C - Aluminum Conductor - Concentric Strand

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 .0150 pf & Rho 60	90	120
						75% LF							
500	69	499	56	33.9	443	61	27.0	402	64	22.5	2.3	3.2	4.0
500	103	504	55	33.5	448	61	26.8	407	64	22.3	2.3	3.2	4.0
500	138	507	55	33.2	451	60	26.6	410	64	22.2	2.3	3.2	4.0
500	207	510	55	33.0	454	60	26.4	413	64	22.1	2.3	3.2	4.0
750	69	615	57	33.6	543	62	26.5	491	65	21.9	2.5	3.5	4.4
750	103	625	56	33.0	553	62	26.1	500	65	21.7	2.5	3.5	4.4
750	138	630	56	32.7	558	61	26.0	505	65	21.5	2.5	3.5	4.4
750	207	635	56	32.3	563	61	25.7	511	64	21.4	2.5	3.5	4.4
1000	69	713	58	33.7	627	63	26.4	565	66	21.7	2.7	3.7	4.7
1000	103	728	58	33.1	641	63	26.0	578	66	21.5	2.7	3.7	4.7
1000	138	736	57	32.7	649	62	25.7	586	66	21.3	2.7	3.7	4.7
1000	207	744	57	32.3	658	62	25.5	594	65	21.1	2.7	3.7	4.7
1250	69	795	59	34.0	696	64	26.4	626	67	21.6	2.8	3.9	4.9
1250	103	815	59	33.3	715	64	26.0	643	67	21.3	2.8	3.9	4.9
1250	138	826	58	32.8	726	63	25.7	654	66	21.2	2.8	3.9	4.9
1250	207	838	58	32.4	737	63	25.4	665	66	20.9	2.8	3.9	4.9
1500	69	865	60	34.2	755	65	26.4	677	68	21.6	2.9	4.0	5.1
1500	103	890	60	33.5	778	64	25.9	699	67	21.2	2.9	4.0	5.1
1500	138	904	59	33.0	792	64	25.6	712	67	21.1	2.9	4.0	5.1
1500	207	920	59	32.4	807	64	25.4	726	67	20.8	2.9	4.0	5.1
1750	69	926	61	34.4	805	66	26.4	720	69	21.4	3.0	4.2	5.4
1750	103	956	60	33.5	834	65	25.9	747	68	21.1	3.0	4.2	5.4
1750	138	973	60	33.0	850	65	25.6	763	68	20.9	3.0	4.2	5.4
1750	207	992	59	32.5	868	64	25.2	780	67	20.7	3.0	4.2	5.4
2000	69	979	62	34.4	849	66	26.3	758	69	21.4	3.1	4.3	5.5
2000	103	1014	61	33.5	882	66	25.8	789	69	21.0	3.1	4.3	5.5
2000	138	1034	60	33.1	902	65	25.5	808	68	20.8	3.1	4.3	5.5
2000	207	1056	60	32.5	923	65	25.1	828	68	20.5	3.1	4.3	5.5
2250	69	1022	62	34.4	885	67	26.2	789	70	21.2	3.2	4.5	5.7
2250	103	1061	62	33.6	922	66	25.7	824	69	20.9	3.2	4.5	5.7
2250	138	1085	61	33.0	944	66	25.4	844	68	20.7	3.2	4.5	5.7
2250	207	1110	60	32.4	968	65	25.1	867	68	20.4	3.2	4.5	5.7
2500	69	1064	63	34.5	919	67	26.2	818	70	21.1	3.3	4.6	5.9
2500	103	1107	62	33.6	960	67	25.6	856	69	20.7	3.3	4.6	5.9
2500	138	1133	61	33.0	984	66	25.3	879	69	20.6	3.3	4.6	5.9
2500	207	1161	61	32.4	1011	65	25.0	905	68	20.3	3.3	4.6	5.9

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - Triplexed - Single Circuit

25°C Earth Ambient

80°C - Aluminum Conductor - Concentric Strand

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 .0150 pf & Rho 60	90	120
						100% LF							
500	69	452	60	28.0	392	65	21.4	349	68	17.2	2.3	3.2	4.0
500	103	457	60	27.8	396	65	21.2	354	68	17.2	2.3	3.2	4.0
500	138	460	60	27.6	399	65	21.1	356	68	17.2	2.3	3.2	4.0
500	207	463	59	27.4	402	64	21.0	359	68	17.1	2.3	3.2	4.0
750	69	553	61	27.4	476	66	20.7	423	69	16.7	2.5	3.5	4.4
750	103	562	61	27.0	485	66	20.5	432	69	16.5	2.5	3.5	4.4
750	138	568	61	26.8	490	66	20.4	436	69	16.4	2.5	3.5	4.4
750	207	573	60	26.6	496	65	20.2	441	68	16.3	2.5	3.5	4.4
1000	69	637	63	27.2	546	67	20.4	483	70	16.3	2.7	3.7	4.7
1000	103	651	62	26.7	559	67	20.1	496	70	16.1	2.7	3.7	4.7
1000	138	659	62	26.5	567	67	20.0	503	69	16.0	2.7	3.7	4.7
1000	207	668	62	26.3	575	66	19.8	510	69	16.0	2.7	3.7	4.7
1250	69	706	64	27.1	603	68	20.2	532	71	16.0	2.8	3.9	4.9
1250	103	725	63	26.7	620	68	19.9	548	70	15.9	2.8	3.9	4.9
1250	138	736	63	26.4	630	67	19.8	558	70	15.8	2.8	3.9	4.9
1250	207	748	62	26.1	641	67	19.6	568	70	15.7	2.8	3.9	4.9
1500	69	764	65	27.1	650	69	20.0	573	71	15.8	2.9	4.0	5.1
1500	103	788	64	26.6	672	68	19.8	593	71	15.7	2.9	4.0	5.1
1500	138	802	64	26.3	685	68	19.6	605	71	15.6	2.9	4.0	5.1
1500	207	817	63	25.9	699	68	19.4	618	70	15.5	2.9	4.0	5.1
1750	69	815	65	27.0	691	70	19.8	607	72	15.7	3.0	4.2	5.4
1750	103	843	65	26.4	717	69	19.6	631	71	15.5	3.0	4.2	5.4
1750	138	860	64	26.1	732	69	19.4	645	71	15.4	3.0	4.2	5.4
1750	207	878	64	25.8	749	68	19.2	661	71	15.3	3.0	4.2	5.4
2000	69	858	66	26.8	726	70	19.7	637	72	15.5	3.1	4.3	5.5
2000	103	891	65	26.3	756	69	19.4	664	72	15.4	3.1	4.3	5.5
2000	138	911	65	26.0	774	69	19.2	681	72	15.2	3.1	4.3	5.5
2000	207	932	64	25.7	794	69	19.0	699	71	15.1	3.1	4.3	5.5
2250	69	893	67	26.7	754	70	19.5	660	73	15.4	3.2	4.5	5.7
2250	103	930	66	26.2	787	70	19.2	691	72	15.2	3.2	4.5	5.7
2250	138	953	65	25.9	808	69	19.0	709	72	15.1	3.2	4.5	5.7
2250	207	977	65	25.5	830	69	18.8	730	72	15.0	3.2	4.5	5.7
2500	69	926	67	26.6	780	71	19.3	683	73	15.2	3.3	4.6	5.9
2500	103	968	66	26.1	817	70	19.0	716	73	15.0	3.3	4.6	5.9
2500	138	992	66	25.7	840	70	18.9	737	72	14.9	3.3	4.6	5.9
2500	207	1020	65	25.4	864	69	18.7	759	72	14.8	3.3	4.6	5.9

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1400

69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - Triplexed - Single Circuit

25°C Earth Ambient

65°C - Aluminum Conductor - Concentric Strand

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 .0150 pf & Rho 60	90	120
						75% LF							
500	69	431	48	24.7	382	51	19.7	345	54	16.4	2.3	3.2	4.0
500	103	436	47	24.4	386	51	19.4	350	54	16.2	2.3	3.2	4.0
500	138	439	47	24.3	389	51	19.3	352	54	16.1	2.3	3.2	4.0
500	207	441	47	24.0	392	51	19.2	355	53	16.0	2.3	3.2	4.0
750	69	530	49	24.5	466	52	19.3	420	55	15.9	2.5	3.5	4.4
750	103	539	48	24.1	475	52	19.0	428	54	15.8	2.5	3.5	4.4
750	138	544	48	23.8	480	52	18.9	433	54	15.6	2.5	3.5	4.4
750	207	549	48	23.6	485	52	18.7	438	54	15.5	2.5	3.5	4.4
1000	69	613	50	24.6	537	53	19.2	481	56	15.7	2.7	3.7	4.7
1000	103	627	49	24.1	549	53	18.9	494	55	15.5	2.7	3.7	4.7
1000	138	634	49	23.8	557	53	18.7	501	55	15.4	2.7	3.7	4.7
1000	207	642	49	23.5	565	52	18.5	508	55	15.3	2.7	3.7	4.7
1250	69	682	51	24.8	594	54	19.2	531	56	15.7	2.8	3.9	4.9
1250	103	700	50	24.3	611	54	18.9	547	56	15.5	2.8	3.9	4.9
1250	138	710	50	23.9	621	53	18.6	557	56	15.3	2.8	3.9	4.9
1250	207	721	49	23.5	632	53	18.4	567	55	15.2	2.8	3.9	4.9
1500	69	740	51	25.0	642	55	19.2	573	57	15.6	2.9	4.0	5.1
1500	103	763	51	24.4	664	54	18.8	593	56	15.3	2.9	4.0	5.1
1500	138	776	50	24.0	677	54	18.6	605	56	15.2	2.9	4.0	5.1
1500	207	791	50	23.6	690	53	18.4	618	56	15.0	2.9	4.0	5.1
1750	69	791	52	25.0	684	55	19.1	608	57	15.5	3.0	4.2	5.4
1750	103	818	51	24.4	709	55	18.8	632	57	15.3	3.0	4.2	5.4
1750	138	834	51	24.1	725	54	18.6	647	56	15.1	3.0	4.2	5.4
1750	207	851	50	23.7	741	54	18.3	663	56	14.9	3.0	4.2	5.4
2000	69	834	52	25.1	720	56	19.1	639	58	15.4	3.1	4.3	5.5
2000	103	866	52	24.5	749	55	18.7	667	57	15.2	3.1	4.3	5.5
2000	138	885	51	24.0	767	55	18.5	683	57	15.0	3.1	4.3	5.5
2000	207	905	51	23.6	786	54	18.3	702	56	14.8	3.1	4.3	5.5
2250	69	870	53	25.1	748	56	19.0	664	58	15.3	3.2	4.5	5.7
2250	103	905	52	24.5	781	55	18.6	694	57	15.1	3.2	4.5	5.7
2250	138	926	52	24.1	801	55	18.4	713	57	14.9	3.2	4.5	5.7
2250	207	949	51	23.6	823	55	18.2	733	57	14.8	3.2	4.5	5.7
2500	69	903	53	25.1	776	56	19.0	687	58	15.2	3.3	4.6	5.9
2500	103	943	52	24.5	812	56	18.6	720	58	15.0	3.3	4.6	5.9
2500	138	966	52	24.0	834	55	18.3	741	57	14.8	3.3	4.6	5.9
2500	207	992	51	23.6	859	55	18.1	764	57	14.7	3.3	4.6	5.9

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - Triplexed - Single Circuit

25°C Earth Ambient

65°C - Aluminum Conductor - Concentric Strand

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 .0150 pf & Rho 60	90	120
						100% LF							
500	69	390	51	20.5	337	54	15.6	299	57	12.7	2.3	3.2	4.0
500	103	395	51	20.3	342	54	15.5	304	56	12.6	2.3	3.2	4.0
500	138	398	50	20.1	344	54	15.5	306	56	12.5	2.3	3.2	4.0
500	207	400	50	20.0	347	54	15.4	309	56	12.5	2.3	3.2	4.0
750	69	476	52	20.0	409	55	15.1	362	57	12.1	2.5	3.5	4.4
750	103	485	52	19.7	417	55	15.0	369	57	12.0	2.5	3.5	4.4
750	138	490	51	19.5	422	55	14.8	374	57	12.0	2.5	3.5	4.4
750	207	495	51	19.4	427	55	14.8	378	57	12.0	2.5	3.5	4.4
1000	69	547	53	19.9	467	56	14.9	411	58	11.9	2.7	3.7	4.7
1000	103	560	52	19.5	479	56	14.7	423	58	11.8	2.7	3.7	4.7
1000	138	568	52	19.4	486	56	14.6	429	58	11.7	2.7	3.7	4.7
1000	207	576	52	19.1	494	55	14.5	436	57	11.6	2.7	3.7	4.7
1250	69	605	54	19.8	514	57	14.8	451	59	11.7	2.8	3.9	4.9
1250	103	622	53	19.5	530	56	14.6	466	58	11.6	2.8	3.9	4.9
1250	138	633	53	19.3	540	56	14.5	475	58	11.5	2.8	3.9	4.9
1250	207	644	53	19.1	550	56	14.3	485	58	11.4	2.8	3.9	4.9
1500	69	654	54	19.8	553	57	14.6	485	59	11.6	2.9	4.0	5.1
1500	103	675	54	19.4	573	57	14.4	503	59	11.5	2.9	4.0	5.1
1500	138	688	53	19.2	585	57	14.3	514	59	11.4	2.9	4.0	5.1
1500	207	702	53	19.0	598	56	14.2	526	58	11.3	2.9	4.0	5.1
1750	69	695	55	19.8	586	58	14.5	512	59	11.4	3.0	4.2	5.4
1750	103	721	54	19.4	610	57	14.3	534	59	11.3	3.0	4.2	5.4
1750	138	737	54	19.1	624	57	14.1	547	59	11.2	3.0	4.2	5.4
1750	207	754	54	18.9	640	57	14.0	561	59	11.2	3.0	4.2	5.4
2000	69	731	55	19.7	614	58	14.3	536	60	11.3	3.1	4.3	5.5
2000	103	761	55	19.3	642	58	14.1	561	59	11.2	3.1	4.3	5.5
2000	138	779	54	19.0	658	57	14.0	576	59	11.1	3.1	4.3	5.5
2000	207	799	54	18.7	676	57	13.9	592	59	11.0	3.1	4.3	5.5
2250	69	759	56	19.6	637	58	14.2	555	60	11.2	3.2	4.5	5.7
2250	103	793	55	19.2	667	58	14.0	582	60	11.1	3.2	4.5	5.7
2250	138	813	55	18.9	685	58	13.9	599	59	11.0	3.2	4.5	5.7
2250	207	835	54	18.6	706	57	13.8	617	59	10.9	3.2	4.5	5.7
2500	69	786	56	19.5	658	59	14.1	572	60	11.1	3.3	4.6	5.9
2500	103	823	55	19.0	691	58	13.9	602	60	10.9	3.3	4.6	5.9
2500	138	846	55	18.8	711	58	13.8	621	60	10.9	3.3	4.6	5.9
2500	207	871	55	18.5	734	58	13.6	641	59	10.8	3.3	4.6	5.9

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - Triplexed - Single Circuit

25°C Earth Ambient

50°C - Aluminum Conductor - Concentric Strand

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 .0150 pf & Rho 60	90	120
						75% LF							
500	69	342	40	15.5	300	42	12.2	269	44	10.2	2.3	3.2	4.0
500	103	346	39	15.3	304	42	12.1	273	43	10.1	2.3	3.2	4.0
500	138	349	39	15.2	307	42	12.0	275	43	10.0	2.3	3.2	4.0
500	207	351	39	15.0	309	42	11.9	278	43	9.9	2.3	3.2	4.0
750	69	419	40	15.3	365	43	12.0	326	44	9.8	2.5	3.5	4.4
750	103	426	40	15.1	372	42	11.8	333	44	9.7	2.5	3.5	4.4
750	138	431	40	14.9	377	42	11.7	337	44	9.7	2.5	3.5	4.4
750	207	435	40	14.8	381	42	11.6	341	44	9.6	2.5	3.5	4.4
1000	69	483	41	15.4	418	43	11.9	371	45	9.7	2.7	3.7	4.7
1000	103	494	41	15.1	429	43	11.7	382	44	9.6	2.7	3.7	4.7
1000	138	501	40	14.9	435	43	11.6	388	44	9.5	2.7	3.7	4.7
1000	207	508	40	14.7	442	43	11.5	394	44	9.5	2.7	3.7	4.7
1250	69	535	41	15.5	461	44	11.9	408	45	9.7	2.8	3.9	4.9
1250	103	550	41	15.2	476	43	11.7	421	45	9.5	2.8	3.9	4.9
1250	138	559	41	14.9	484	43	11.6	429	45	9.4	2.8	3.9	4.9
1250	207	569	41	14.7	493	43	11.4	438	45	9.4	2.8	3.9	4.9
1500	69	579	42	15.6	497	44	11.9	438	45	9.6	2.9	4.0	5.1
1500	103	598	42	15.3	515	44	11.7	454	45	9.5	2.9	4.0	5.1
1500	138	610	41	15.0	525	44	11.5	464	45	9.4	2.9	4.0	5.1
1500	207	622	41	14.8	537	43	11.4	475	45	9.2	2.9	4.0	5.1
1750	69	617	42	15.7	527	44	11.9	463	46	9.5	3.0	4.2	5.4
1750	103	640	42	15.3	548	44	11.7	483	45	9.4	3.0	4.2	5.4
1750	138	653	42	15.0	561	44	11.5	494	45	9.3	3.0	4.2	5.4
1750	207	668	41	14.8	575	44	11.3	507	45	9.2	3.0	4.2	5.4
2000	69	649	43	15.7	553	45	11.8	485	46	9.4	3.1	4.3	5.5
2000	103	675	42	15.3	577	44	11.6	507	46	9.3	3.1	4.3	5.5
2000	138	691	42	15.0	592	44	11.5	520	45	9.2	3.1	4.3	5.5
2000	207	709	42	14.8	608	44	11.2	535	45	9.1	3.1	4.3	5.5
2250	69	675	43	15.7	574	45	11.7	501	46	9.4	3.2	4.5	5.7
2250	103	705	42	15.2	600	45	11.5	526	46	9.3	3.2	4.5	5.7
2250	138	722	42	15.0	617	44	11.4	541	46	9.1	3.2	4.5	5.7
2250	207	742	42	14.7	635	44	11.2	558	45	9.1	3.2	4.5	5.7
2500	69	700	43	15.6	593	45	11.7	517	46	9.3	3.3	4.6	5.9
2500	103	732	43	15.2	622	45	11.5	544	46	9.2	3.3	4.6	5.9
2500	138	752	42	15.0	641	44	11.3	561	46	9.1	3.3	4.6	5.9
2500	207	774	42	14.7	661	44	11.1	579	46	9.0	3.3	4.6	5.9

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - Triplexed - Single Circuit

25°C Earth Ambient

50°C - Aluminum Conductor - Concentric Strand

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 .0150 pf & Rho 60	90	120
						100% LF							
500	69	310	42	12.9	265	44	9.9	234	45	8.0	2.3	3.2	4.0
500	103	314	41	12.8	269	44	9.8	237	45	7.9	2.3	3.2	4.0
500	138	316	41	12.7	271	44	9.7	239	45	7.9	2.3	3.2	4.0
500	207	318	41	12.6	274	43	9.7	242	45	7.8	2.3	3.2	4.0
750	69	376	42	12.6	320	44	9.6	280	46	7.7	2.5	3.5	4.4
750	103	383	42	12.5	327	44	9.4	287	46	7.6	2.5	3.5	4.4
750	138	388	42	12.4	331	44	9.4	291	45	7.6	2.5	3.5	4.4
750	207	392	42	12.2	335	44	9.3	295	45	7.5	2.5	3.5	4.4
1000	69	430	43	12.5	364	45	9.4	317	46	7.5	2.7	3.7	4.7
1000	103	442	43	12.3	374	45	9.3	327	46	7.4	2.7	3.7	4.7
1000	138	448	42	12.2	380	45	9.2	332	46	7.4	2.7	3.7	4.7
1000	207	455	42	12.1	386	44	9.1	338	46	7.4	2.7	3.7	4.7
1250	69	474	43	12.6	399	45	9.3	346	46	7.4	2.8	3.9	4.9
1250	103	489	43	12.3	412	45	9.1	359	46	7.3	2.8	3.9	4.9
1250	138	498	43	12.2	420	45	9.1	366	46	7.3	2.8	3.9	4.9
1250	207	507	43	12.0	429	45	9.0	374	46	7.2	2.8	3.9	4.9
1500	69	511	44	12.5	427	46	9.2	370	47	7.3	2.9	4.0	5.1
1500	103	529	43	12.2	444	45	9.1	385	47	7.2	2.9	4.0	5.1
1500	138	540	43	12.1	454	45	9.0	394	46	7.2	2.9	4.0	5.1
1500	207	552	43	12.0	465	45	9.0	404	46	7.1	2.9	4.0	5.1
1750	69	542	44	12.4	452	46	9.1	390	47	7.2	3.0	4.2	5.4
1750	103	564	44	12.2	471	46	9.0	407	47	7.1	3.0	4.2	5.4
1750	138	577	44	12.1	483	45	8.9	418	47	7.1	3.0	4.2	5.4
1750	207	591	43	11.9	496	45	8.8	430	46	7.0	3.0	4.2	5.4
2000	69	568	44	12.4	472	46	9.0	406	47	7.1	3.1	4.3	5.5
2000	103	593	44	12.1	494	46	8.9	426	47	7.1	3.1	4.3	5.5
2000	138	608	44	12.0	508	46	8.8	438	47	7.0	3.1	4.3	5.5
2000	207	625	44	11.8	523	45	8.8	452	47	6.9	3.1	4.3	5.5
2250	69	589	45	12.3	488	46	8.9	419	47	7.0	3.2	4.5	5.7
2250	103	617	44	12.1	512	46	8.9	441	47	7.0	3.2	4.5	5.7
2250	138	634	44	11.9	527	46	8.7	454	47	6.9	3.2	4.5	5.7
2250	207	652	44	11.7	544	46	8.7	469	47	6.9	3.2	4.5	5.7
2500	69	609	45	12.2	503	46	8.9	431	47	7.0	3.3	4.6	5.9
2500	103	639	44	12.0	529	46	8.8	454	47	6.9	3.3	4.6	5.9
2500	138	658	44	11.8	546	46	8.6	469	47	6.9	3.3	4.6	5.9
2500	207	678	44	11.7	564	46	8.6	486	47	6.8	3.3	4.6	5.9

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - Triplexed - Single Circuit

25°C Earth Ambient

Total Watts/ft for 90°C - Aluminum Conductor - Concentric Strand

		60 Rho		90 Rho		120 Rho	
		75 LF	100 LF	75 LF	100 LF	75 LF	100 LF
Condr Size	Shield Res						
500	69	44.5	36.7	35.4	28.1	29.6	22.7
500	103	44.0	36.3	35.2	27.9	29.4	22.6
500	138	43.7	36.2	34.9	27.8	29.2	22.4
500	207	43.4	35.9	34.7	27.6	29.1	22.4
750	69	48.0	39.1	37.9	29.5	31.4	23.8
750	103	47.1	38.5	37.4	29.2	31.0	23.6
750	138	46.8	38.3	37.1	29.1	30.9	23.5
750	207	46.2	37.9	36.9	28.9	30.7	23.3
1000	69	51.3	41.2	40.2	30.9	33.1	24.8
1000	103	50.3	40.7	39.6	30.6	32.7	24.5
1000	138	49.8	40.3	39.2	30.4	32.5	24.4
1000	207	49.1	39.9	38.9	30.2	32.2	24.2
1250	69	54.0	43.0	42.0	32.0	34.4	25.5
1250	103	52.8	42.3	41.3	31.6	34.0	25.2
1250	138	52.2	41.9	40.9	31.4	33.7	25.1
1250	207	51.5	41.4	40.5	31.2	33.4	24.9
1500	69	56.3	44.4	43.5	32.9	35.6	26.1
1500	103	55.0	43.7	42.8	32.5	35.0	25.8
1500	138	54.3	43.2	42.4	32.2	34.8	25.7
1500	207	53.5	42.8	41.8	32.0	34.4	25.5
1750	69	58.4	45.8	44.9	33.7	36.6	26.7
1750	103	57.1	44.9	44.1	33.2	36.1	26.4
1750	138	56.2	44.4	43.6	32.9	35.7	26.2
1750	207	55.3	43.8	43.0	32.7	35.4	26.0
2000	69	60.2	46.9	46.2	34.4	37.5	27.1
2000	103	58.7	46.0	45.3	33.9	36.9	26.9
2000	138	57.9	45.5	44.7	33.6	36.6	26.7
2000	207	56.9	44.9	44.1	33.3	36.1	26.5
2250	69	62.0	47.9	47.3	35.0	38.3	27.6
2250	103	60.3	47.0	46.3	34.5	37.7	27.3
2250	138	59.4	46.5	45.8	34.2	37.3	27.1
2250	207	58.4	45.8	45.2	33.9	36.9	26.9
2500	69	63.5	48.8	48.3	35.5	39.0	28.0
2500	103	61.9	47.9	47.4	35.1	38.4	27.7
2500	138	60.8	47.3	46.7	34.7	38.0	27.4
2500	207	59.7	46.6	46.1	34.4	37.6	27.3

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - Triplexed - Single Circuit

25°C Earth Ambient

Total Watts/ft for 80°C - Aluminum Conductor - Concentric Strand

		60 Rho		90 Rho		120 Rho	
		75 LF	100 LF	75 LF	100 LF	75 LF	100 LF
Condr Size	Shield Res						
500	69	37.7	31.2	30.0	23.8	25.0	19.2
500	103	37.2	30.9	29.7	23.6	24.8	19.1
500	138	37.0	30.7	29.6	23.5	24.7	19.0
500	207	36.7	30.5	29.4	23.4	24.6	19.0
750	69	40.6	33.2	32.1	25.0	26.5	20.1
750	103	40.0	32.7	31.7	24.8	26.2	20.0
750	138	39.6	32.5	31.4	24.6	26.1	19.9
750	207	39.2	32.2	31.1	24.6	26.0	19.8
1000	69	43.5	35.1	34.0	26.3	28.0	21.0
1000	103	42.7	34.5	33.5	26.0	27.6	20.8
1000	138	42.2	34.2	33.2	25.8	27.4	20.7
1000	207	41.6	33.9	33.0	25.6	27.2	20.6
1250	69	45.8	36.5	35.6	27.2	29.2	21.6
1250	103	44.9	35.9	35.0	26.8	28.7	21.4
1250	138	44.2	35.5	34.6	26.6	28.5	21.3
1250	207	43.6	35.2	34.2	26.4	28.2	21.1
1500	69	47.8	37.7	36.9	27.9	30.1	22.2
1500	103	46.7	37.0	36.2	27.5	29.6	21.9
1500	138	46.0	36.7	35.8	27.3	29.3	21.8
1500	207	45.3	36.2	35.4	27.1	29.1	21.6
1750	69	49.6	38.9	38.0	28.6	30.9	22.6
1750	103	48.4	38.1	37.4	28.2	30.4	22.4
1750	138	47.6	37.7	36.9	27.9	30.1	22.2
1750	207	46.9	37.2	36.4	27.7	29.8	22.1
2000	69	51.2	39.9	39.1	29.2	31.6	23.0
2000	103	49.9	39.1	38.3	28.8	31.2	22.8
2000	138	49.0	38.6	37.9	28.5	30.9	22.6
2000	207	48.2	38.0	37.4	28.3	30.5	22.4
2250	69	52.5	40.7	40.0	29.7	32.3	23.4
2250	103	51.2	39.9	39.2	29.3	31.8	23.1
2250	138	50.4	39.5	38.8	29.1	31.5	22.9
2250	207	49.5	38.9	38.2	28.8	31.2	22.8
2500	69	53.9	41.4	40.9	30.2	32.9	23.7
2500	103	52.4	40.7	40.1	29.7	32.4	23.4
2500	138	51.5	40.1	39.5	29.5	32.0	23.3
2500	207	50.5	39.6	38.9	29.1	31.7	23.1

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - Triplexed - Single Circuit

25°C Earth Ambient

Total Watts/ft for 65°C - Aluminum Conductor - Concentric Strand

		60 Rho		90 Rho		120 Rho	
		75 LF	100 LF	75 LF	100 LF	75 LF	100 LF
Condr Size	Shield Res						
500	69	27.5	22.8	21.9	17.4	18.2	14.0
500	103	27.2	22.6	21.6	17.3	18.0	14.0
500	138	27.0	22.4	21.5	17.2	17.9	13.9
500	207	26.7	22.2	21.4	17.1	17.8	13.9
750	69	29.7	24.3	23.3	18.4	19.3	14.8
750	103	29.2	24.0	23.1	18.2	19.0	14.6
750	138	28.9	23.8	22.9	18.1	18.9	14.6
750	207	28.6	23.5	22.7	18.0	18.8	14.4
1000	69	31.8	25.7	24.8	19.2	20.3	15.3
1000	103	31.2	25.2	24.3	19.0	20.1	15.2
1000	138	30.7	25.0	24.2	18.8	19.9	15.1
1000	207	30.3	24.8	23.9	18.7	19.7	15.0
1250	69	33.4	26.7	25.8	19.9	21.1	15.8
1250	103	32.7	26.2	25.4	19.6	20.8	15.6
1250	138	32.2	26.0	25.1	19.5	20.6	15.5
1250	207	31.7	25.7	24.8	19.3	20.4	15.5
1500	69	34.8	27.7	26.8	20.4	21.8	16.2
1500	103	34.0	27.1	26.3	20.1	21.4	16.0
1500	138	33.5	26.8	26.0	20.0	21.2	15.9
1500	207	33.0	26.5	25.6	19.8	21.0	15.8
1750	69	36.2	28.4	27.6	20.9	22.3	16.5
1750	103	35.2	27.9	27.0	20.6	22.0	16.3
1750	138	34.7	27.6	26.8	20.4	21.8	16.2
1750	207	34.0	27.2	26.4	20.2	21.6	16.1
2000	69	37.3	29.2	28.4	21.3	22.9	16.8
2000	103	36.3	28.6	27.8	21.1	22.5	16.6
2000	138	35.8	28.2	27.4	20.8	22.3	16.5
2000	207	35.1	27.9	27.0	20.6	22.0	16.4
2250	69	38.3	29.8	29.0	21.7	23.4	17.1
2250	103	37.3	29.2	28.4	21.4	23.0	16.9
2250	138	36.6	28.8	28.1	21.2	22.7	16.8
2250	207	35.9	28.4	27.6	21.0	22.4	16.6
2500	69	39.2	30.3	29.6	22.0	23.8	17.3
2500	103	38.2	29.7	29.0	21.7	23.4	17.1
2500	138	37.5	29.4	28.6	21.5	23.1	17.0
2500	207	36.8	28.9	28.2	21.3	22.9	16.9

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - Triplexed - Single Circuit

25°C Earth Ambient

Total Watts/ft for 50°C - Aluminum Conductor - Concentric Strand

		60 Rho		90 Rho		120 Rho	
		75 LF	100 LF	75 LF	100 LF	75 LF	100 LF
Condr Size	Shield Res						
500	69	17.2	14.4	13.6	10.9	11.2	8.9
500	103	17.0	14.3	13.5	10.9	11.1	8.8
500	138	16.9	14.1	13.4	10.8	11.1	8.7
500	207	16.7	14.0	13.3	10.8	11.1	8.8
750	69	18.6	15.3	14.5	11.6	11.9	9.3
750	103	18.2	15.1	14.3	11.4	11.8	9.2
750	138	18.1	15.0	14.2	11.4	11.7	9.2
750	207	17.8	14.8	14.1	11.3	11.6	9.1
1000	69	19.9	16.2	15.4	12.1	12.5	9.6
1000	103	19.5	16.0	15.1	12.0	12.4	9.6
1000	138	19.2	15.8	15.0	11.9	12.3	9.5
1000	207	19.0	15.6	14.8	11.8	12.2	9.5
1250	69	20.9	16.8	16.0	12.5	13.0	9.9
1250	103	20.4	16.5	15.8	12.3	12.8	9.9
1250	138	20.1	16.4	15.6	12.2	12.7	9.8
1250	207	19.8	16.2	15.4	12.1	12.6	9.7
1500	69	21.8	17.4	16.6	12.8	13.4	10.2
1500	103	21.2	17.1	16.3	12.7	13.2	10.1
1500	138	21.0	16.9	16.1	12.6	13.0	10.0
1500	207	20.6	16.7	15.9	12.5	12.9	9.9
1750	69	22.6	17.9	17.1	13.2	13.7	10.4
1750	103	22.0	17.6	16.8	13.0	13.5	10.3
1750	138	21.6	17.4	16.6	12.9	13.4	10.2
1750	207	21.3	17.1	16.3	12.7	13.2	10.1
2000	69	23.2	18.4	17.5	13.4	14.0	10.6
2000	103	22.6	18.0	17.2	13.2	13.8	10.5
2000	138	22.3	17.8	17.0	13.1	13.7	10.4
2000	207	21.9	17.5	16.7	13.0	13.5	10.3
2250	69	23.8	18.7	17.9	13.6	14.2	10.7
2250	103	23.3	18.4	17.5	13.4	14.1	10.6
2250	138	22.8	18.2	17.3	13.3	13.9	10.5
2250	207	22.4	17.9	17.1	13.2	13.8	10.5
2500	69	24.4	19.1	18.3	13.9	14.5	10.9
2500	103	23.8	18.7	17.9	13.7	14.3	10.7
2500	138	23.4	18.5	17.7	13.5	14.2	10.7
2500	207	22.9	18.2	17.4	13.4	14.0	10.6

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - Triplexed - Single Circuit

25°C Earth Ambient

Size	Res	OD	Wd	Rac	Qs	Ri	Rj	Re @ 90 Rho & loss factor 75%	Re @ 90 Rho & loss factor 100%
			90°C - Aluminum Conductor - Concentric Strand						
500	69	2.679	0.51	44.75	1.110	1.95	0.27	3.43	4.97
500	103	2.679	0.51	44.75	1.076	1.95	0.27	3.43	4.97
500	138	2.679	0.51	44.75	1.057	1.95	0.27	3.43	4.97
500	207	2.679	0.51	44.75	1.038	1.95	0.27	3.43	4.97
750	69	2.918	0.57	30.05	1.167	1.72	0.32	3.31	4.84
750	103	2.918	0.57	30.05	1.115	1.72	0.32	3.31	4.84
750	138	2.918	0.57	30.05	1.087	1.72	0.32	3.31	4.84
750	207	2.918	0.57	30.05	1.058	1.72	0.32	3.31	4.84
1000	69	3.107	0.63	22.78	1.220	1.56	0.30	3.23	4.76
1000	103	3.107	0.63	22.78	1.152	1.56	0.30	3.23	4.76
1000	138	3.107	0.63	22.78	1.114	1.56	0.30	3.23	4.76
1000	207	3.107	0.63	22.78	1.077	1.56	0.30	3.23	4.76
1250	69	3.240	0.68	18.49	1.269	1.45	0.28	3.17	4.70
1250	103	3.240	0.68	18.49	1.185	1.45	0.28	3.17	4.70
1250	138	3.240	0.68	18.49	1.140	1.45	0.28	3.17	4.70
1250	207	3.240	0.68	18.49	1.094	1.45	0.28	3.17	4.70
1500	69	3.360	0.72	15.67	1.315	1.36	0.27	3.11	4.65
1500	103	3.360	0.72	15.67	1.217	1.36	0.27	3.11	4.65
1500	138	3.360	0.72	15.67	1.164	1.36	0.27	3.11	4.65
1500	207	3.360	0.72	15.67	1.110	1.36	0.27	3.11	4.65
1750	69	3.470	0.76	13.69	1.359	1.29	0.26	3.07	4.60
1750	103	3.470	0.76	13.69	1.247	1.29	0.26	3.07	4.60
1750	138	3.470	0.76	13.69	1.186	1.29	0.26	3.07	4.60
1750	207	3.470	0.76	13.69	1.125	1.29	0.26	3.07	4.60
2000	69	3.573	0.80	12.24	1.399	1.22	0.26	3.03	4.56
2000	103	3.573	0.80	12.24	1.275	1.22	0.26	3.03	4.56
2000	138	3.573	0.80	12.24	1.207	1.22	0.26	3.03	4.56
2000	207	3.573	0.80	12.24	1.139	1.22	0.26	3.03	4.56
2250	69	3.668	0.83	11.23	1.433	1.17	0.25	2.99	4.52
2250	103	3.668	0.83	11.23	1.298	1.17	0.25	2.99	4.52
2250	138	3.668	0.83	11.23	1.225	1.17	0.25	2.99	4.52
2250	207	3.668	0.83	11.23	1.151	1.17	0.25	2.99	4.52
2500	69	3.759	0.86	10.36	1.467	1.13	0.24	2.96	4.49
2500	103	3.759	0.86	10.36	1.322	1.13	0.24	2.96	4.49
2500	138	3.759	0.86	10.36	1.242	1.13	0.24	2.96	4.49
2500	207	3.759	0.86	10.36	1.163	1.13	0.24	2.96	4.49

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - Triplexed - Single Circuit

25°C Earth Ambient

Size	Res	OD	Wd	Rac	Qs	Ri	Rj	Re @ 90 Rho & loss factor 75%	100%
			80°C - Aluminum Conductor - Concentric Strand						
500	69	2.679	0.51	44.75	1.110	1.95	0.27	3.43	4.97
500	103	2.679	0.51	44.75	1.076	1.95	0.27	3.43	4.97
500	138	2.679	0.51	44.75	1.057	1.95	0.27	3.43	4.97
500	207	2.679	0.51	44.75	1.038	1.95	0.27	3.43	4.97
750	69	2.918	0.57	30.05	1.167	1.72	0.32	3.31	4.84
750	103	2.918	0.57	30.05	1.115	1.72	0.32	3.31	4.84
750	138	2.918	0.57	30.05	1.087	1.72	0.32	3.31	4.84
750	207	2.918	0.57	30.05	1.058	1.72	0.32	3.31	4.84
1000	69	3.107	0.63	22.78	1.220	1.56	0.30	3.23	4.76
1000	103	3.107	0.63	22.78	1.152	1.56	0.30	3.23	4.76
1000	138	3.107	0.63	22.78	1.114	1.56	0.30	3.23	4.76
1000	207	3.107	0.63	22.78	1.077	1.56	0.30	3.23	4.76
1250	69	3.240	0.68	18.49	1.269	1.45	0.28	3.17	4.70
1250	103	3.240	0.68	18.49	1.185	1.45	0.28	3.17	4.70
1250	138	3.240	0.68	18.49	1.140	1.45	0.28	3.17	4.70
1250	207	3.240	0.68	18.49	1.094	1.45	0.28	3.17	4.70
1500	69	3.360	0.72	15.67	1.315	1.36	0.27	3.11	4.65
1500	103	3.360	0.72	15.67	1.217	1.36	0.27	3.11	4.65
1500	138	3.360	0.72	15.67	1.164	1.36	0.27	3.11	4.65
1500	207	3.360	0.72	15.67	1.110	1.36	0.27	3.11	4.65
1750	69	3.470	0.76	13.69	1.359	1.29	0.26	3.07	4.60
1750	103	3.470	0.76	13.69	1.247	1.29	0.26	3.07	4.60
1750	138	3.470	0.76	13.69	1.186	1.29	0.26	3.07	4.60
1750	207	3.470	0.76	13.69	1.125	1.29	0.26	3.07	4.60
2000	69	3.573	0.80	12.24	1.399	1.22	0.26	3.03	4.56
2000	103	3.573	0.80	12.24	1.275	1.22	0.26	3.03	4.56
2000	138	3.573	0.80	12.24	1.207	1.22	0.26	3.03	4.56
2000	207	3.573	0.80	12.24	1.139	1.22	0.26	3.03	4.56
2250	69	3.668	0.83	11.23	1.433	1.17	0.25	2.99	4.52
2250	103	3.668	0.83	11.23	1.298	1.17	0.25	2.99	4.52
2250	138	3.668	0.83	11.23	1.225	1.17	0.25	2.99	4.52
2250	207	3.668	0.83	11.23	1.151	1.17	0.25	2.99	4.52
2500	69	3.759	0.86	10.36	1.467	1.13	0.24	2.96	4.49
2500	103	3.759	0.86	10.36	1.322	1.13	0.24	2.96	4.49
2500	138	3.759	0.86	10.36	1.242	1.13	0.24	2.96	4.49
2500	207	3.759	0.86	10.36	1.163	1.13	0.24	2.96	4.49

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1410

69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - Triplexed - Single Circuit

25°C Earth Ambient

Size	Res	OD	Wd	Rac	Qs	Ri	Rj	Re @ 90 Rho & loss factor 75%	Re @ 90 Rho & loss factor 100%
65°C - Aluminum Conductor - Concentric Strand									
500	69	2.679	0.51	44.75	1.110	1.95	0.27	3.43	4.97
500	103	2.679	0.51	44.75	1.076	1.95	0.27	3.43	4.97
500	138	2.679	0.51	44.75	1.057	1.95	0.27	3.43	4.97
500	207	2.679	0.51	44.75	1.038	1.95	0.27	3.43	4.97
750	69	2.918	0.57	30.05	1.167	1.72	0.32	3.31	4.84
750	103	2.918	0.57	30.05	1.115	1.72	0.32	3.31	4.84
750	138	2.918	0.57	30.05	1.087	1.72	0.32	3.31	4.84
750	207	2.918	0.57	30.05	1.058	1.72	0.32	3.31	4.84
1000	69	3.107	0.63	22.78	1.220	1.56	0.30	3.23	4.76
1000	103	3.107	0.63	22.78	1.152	1.56	0.30	3.23	4.76
1000	138	3.107	0.63	22.78	1.114	1.56	0.30	3.23	4.76
1000	207	3.107	0.63	22.78	1.077	1.56	0.30	3.23	4.76
1250	69	3.240	0.68	18.49	1.269	1.45	0.28	3.17	4.70
1250	103	3.240	0.68	18.49	1.185	1.45	0.28	3.17	4.70
1250	138	3.240	0.68	18.49	1.140	1.45	0.28	3.17	4.70
1250	207	3.240	0.68	18.49	1.094	1.45	0.28	3.17	4.70
1500	69	3.360	0.72	15.67	1.315	1.36	0.27	3.11	4.65
1500	103	3.360	0.72	15.67	1.217	1.36	0.27	3.11	4.65
1500	138	3.360	0.72	15.67	1.164	1.36	0.27	3.11	4.65
1500	207	3.360	0.72	15.67	1.110	1.36	0.27	3.11	4.65
1750	69	3.470	0.76	13.69	1.359	1.29	0.26	3.07	4.60
1750	103	3.470	0.76	13.69	1.247	1.29	0.26	3.07	4.60
1750	138	3.470	0.76	13.69	1.186	1.29	0.26	3.07	4.60
1750	207	3.470	0.76	13.69	1.125	1.29	0.26	3.07	4.60
2000	69	3.573	0.80	12.24	1.399	1.22	0.26	3.03	4.56
2000	103	3.573	0.80	12.24	1.275	1.22	0.26	3.03	4.56
2000	138	3.573	0.80	12.24	1.207	1.22	0.26	3.03	4.56
2000	207	3.573	0.80	12.24	1.139	1.22	0.26	3.03	4.56
2250	69	3.668	0.83	11.23	1.433	1.17	0.25	2.99	4.52
2250	103	3.668	0.83	11.23	1.298	1.17	0.25	2.99	4.52
2250	138	3.668	0.83	11.23	1.225	1.17	0.25	2.99	4.52
2250	207	3.668	0.83	11.23	1.151	1.17	0.25	2.99	4.52
2500	69	3.759	0.86	10.36	1.467	1.13	0.24	2.96	4.49
2500	103	3.759	0.86	10.36	1.322	1.13	0.24	2.96	4.49
2500	138	3.759	0.86	10.36	1.242	1.13	0.24	2.96	4.49
2500	207	3.759	0.86	10.36	1.163	1.13	0.24	2.96	4.49

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - Triplexed - Single Circuit

25°C Earth Ambient

Size	Res	OD	Wd	Rac	Qs	Ri	Rj	Re @ 90 Rho & loss factor 75%	100%
				50°C - Aluminum Conductor - Concentric Strand					
500	69	2.679	0.51	44.75	1.110	1.95	0.27	3.43	4.97
500	103	2.679	0.51	44.75	1.076	1.95	0.27	3.43	4.97
500	138	2.679	0.51	44.75	1.057	1.95	0.27	3.43	4.97
500	207	2.679	0.51	44.75	1.038	1.95	0.27	3.43	4.97
750	69	2.918	0.57	30.05	1.167	1.72	0.32	3.31	4.84
750	103	2.918	0.57	30.05	1.115	1.72	0.32	3.31	4.84
750	138	2.918	0.57	30.05	1.087	1.72	0.32	3.31	4.84
750	207	2.918	0.57	30.05	1.058	1.72	0.32	3.31	4.84
1000	69	3.107	0.63	22.78	1.220	1.56	0.30	3.23	4.76
1000	103	3.107	0.63	22.78	1.152	1.56	0.30	3.23	4.76
1000	138	3.107	0.63	22.78	1.114	1.56	0.30	3.23	4.76
1000	207	3.107	0.63	22.78	1.077	1.56	0.30	3.23	4.76
1250	69	3.240	0.68	18.49	1.269	1.45	0.28	3.17	4.70
1250	103	3.240	0.68	18.49	1.185	1.45	0.28	3.17	4.70
1250	138	3.240	0.68	18.49	1.140	1.45	0.28	3.17	4.70
1250	207	3.240	0.68	18.49	1.094	1.45	0.28	3.17	4.70
1500	69	3.360	0.72	15.67	1.315	1.36	0.27	3.11	4.65
1500	103	3.360	0.72	15.67	1.217	1.36	0.27	3.11	4.65
1500	138	3.360	0.72	15.67	1.164	1.36	0.27	3.11	4.65
1500	207	3.360	0.72	15.67	1.110	1.36	0.27	3.11	4.65
1750	69	3.470	0.76	13.69	1.359	1.29	0.26	3.07	4.60
1750	103	3.470	0.76	13.69	1.247	1.29	0.26	3.07	4.60
1750	138	3.470	0.76	13.69	1.186	1.29	0.26	3.07	4.60
1750	207	3.470	0.76	13.69	1.125	1.29	0.26	3.07	4.60
2000	69	3.573	0.80	12.24	1.399	1.22	0.26	3.03	4.56
2000	103	3.573	0.80	12.24	1.275	1.22	0.26	3.03	4.56
2000	138	3.573	0.80	12.24	1.207	1.22	0.26	3.03	4.56
2000	207	3.573	0.80	12.24	1.139	1.22	0.26	3.03	4.56
2250	69	3.668	0.83	11.23	1.433	1.17	0.25	2.99	4.52
2250	103	3.668	0.83	11.23	1.298	1.17	0.25	2.99	4.52
2250	138	3.668	0.83	11.23	1.225	1.17	0.25	2.99	4.52
2250	207	3.668	0.83	11.23	1.151	1.17	0.25	2.99	4.52
2500	69	3.759	0.86	10.36	1.467	1.13	0.24	2.96	4.49
2500	103	3.759	0.86	10.36	1.322	1.13	0.24	2.96	4.49
2500	138	3.759	0.86	10.36	1.242	1.13	0.24	2.96	4.49
2500	207	3.759	0.86	10.36	1.163	1.13	0.24	2.96	4.49

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1412

69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - Triplexed - Double Circuit

25°C Earth Ambient

90°C - Aluminum Conductor - Concentric Strand

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 .0150 pf & Rho 60	90	120
						75% LF							
500	69	479	67	32.1	416	73	24.5	372	76	19.9	3.2	4.4	5.7
500	103	484	67	31.8	421	72	24.3	377	76	19.8	3.2	4.4	5.7
500	138	487	66	31.6	424	72	24.3	379	76	19.7	3.2	4.4	5.7
500	207	490	66	31.4	427	72	24.2	382	75	19.7	3.2	4.4	5.7
750	69	586	69	31.3	506	74	23.7	451	77	19.1	3.5	4.9	6.3
750	103	595	68	30.8	515	74	23.4	459	77	18.9	3.5	4.9	6.3
750	138	601	68	30.6	521	73	23.3	464	77	18.8	3.5	4.9	6.3
750	207	606	67	30.4	526	73	23.2	469	76	18.7	3.5	4.9	6.3
1000	69	675	70	30.9	580	75	23.2	515	78	18.6	3.7	5.3	6.8
1000	103	689	69	30.4	594	75	23.0	527	78	18.4	3.7	5.3	6.8
1000	138	698	69	30.2	602	74	22.9	535	78	18.4	3.7	5.3	6.8
1000	207	706	69	29.9	610	74	22.7	542	77	18.2	3.7	5.3	6.8
1250	69	749	71	30.8	641	76	23.0	567	79	18.3	3.9	5.6	7.2
1250	103	768	71	30.3	659	76	22.7	583	79	18.1	3.9	5.6	7.2
1250	138	779	70	30.0	669	75	22.5	593	79	18.1	3.9	5.6	7.2
1250	207	791	70	29.7	680	75	22.4	603	78	17.9	3.9	5.6	7.2
1500	69	811	72	30.7	692	77	22.7	610	80	18.1	4.1	5.9	7.6
1500	103	835	72	30.2	714	77	22.4	631	80	17.8	4.1	5.9	7.6
1500	138	850	71	29.8	727	76	22.3	643	79	17.8	4.1	5.9	7.6
1500	207	865	71	29.5	741	76	22.1	656	79	17.6	4.1	5.9	7.6
1750	69	865	73	30.5	735	78	22.5	647	81	17.8	4.3	6.1	7.9
1750	103	894	72	30.0	762	77	22.2	672	80	17.6	4.3	6.1	7.9
1750	138	911	72	29.6	778	77	22.1	686	80	17.5	4.3	6.1	7.9
1750	207	929	71	29.3	795	76	21.8	702	79	17.4	4.3	6.1	7.9
2000	69	911	74	30.3	773	79	22.3	679	81	17.6	4.5	6.4	8.2
2000	103	945	73	29.8	803	78	22.0	707	81	17.4	4.5	6.4	8.2
2000	138	965	73	29.4	822	77	21.8	724	80	17.2	4.5	6.4	8.2
2000	207	987	72	29.0	842	77	21.6	742	80	17.1	4.5	6.4	8.2
2250	69	949	75	30.1	803	79	22.0	704	82	17.3	4.6	6.6	8.5
2250	103	987	74	29.6	837	78	21.7	736	81	17.2	4.6	6.6	8.5
2250	138	1009	73	29.2	858	78	21.6	754	81	17.1	4.6	6.6	8.5
2250	207	1034	73	28.8	880	77	21.3	775	80	16.9	4.6	6.6	8.5
2500	69	984	75	30.0	831	79	21.8	728	82	17.2	4.7	6.8	8.8
2500	103	1026	74	29.4	869	79	21.5	763	81	17.0	4.7	6.8	8.8
2500	138	1052	74	29.0	892	78	21.3	783	81	16.8	4.7	6.8	8.8
2500	207	1079	73	28.6	917	78	21.1	806	81	16.7	4.7	6.8	8.8

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - Triplexed - Double Circuit

25°C Earth Ambient

90°C - Aluminum Conductor - Concentric Strand

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 .0150 pf & Rho 60	90	120
						100% LF							
500	69	421	72	25.1	358	77	18.5	315	80	14.6	3.2	4.4	5.7
500	103	426	72	24.9	362	77	18.4	319	80	14.6	3.2	4.4	5.7
500	138	428	72	24.8	365	77	18.3	321	80	14.6	3.2	4.4	5.7
500	207	431	71	24.6	367	77	18.2	324	80	14.5	3.2	4.4	5.7
750	69	511	74	24.1	432	78	17.7	379	81	13.9	3.5	4.9	6.3
750	103	520	73	23.8	440	78	17.5	387	81	13.9	3.5	4.9	6.3
750	138	525	73	23.8	445	78	17.4	391	81	13.8	3.5	4.9	6.3
750	207	531	73	23.6	450	78	17.4	396	80	13.8	3.5	4.9	6.3
1000	69	585	75	23.5	492	79	17.1	430	82	13.4	3.7	5.3	6.8
1000	103	598	75	23.3	504	79	17.0	441	82	13.3	3.7	5.3	6.8
1000	138	606	74	23.2	511	79	16.9	448	81	13.3	3.7	5.3	6.8
1000	207	614	74	23.0	519	79	16.8	455	81	13.2	3.7	5.3	6.8
1250	69	645	76	23.3	541	80	16.8	472	83	13.1	3.9	5.6	7.2
1250	103	663	76	23.0	557	80	16.6	486	82	13.1	3.9	5.6	7.2
1250	138	674	75	22.8	566	80	16.6	495	82	13.0	3.9	5.6	7.2
1250	207	685	75	22.7	576	79	16.5	504	82	12.9	3.9	5.6	7.2
1500	69	696	77	23.0	581	81	16.5	506	83	12.9	4.1	5.9	7.6
1500	103	719	76	22.7	601	80	16.3	524	83	12.8	4.1	5.9	7.6
1500	138	732	76	22.6	613	80	16.3	534	83	12.8	4.1	5.9	7.6
1500	207	746	76	22.3	626	80	16.2	546	82	12.7	4.1	5.9	7.6
1750	69	739	78	22.8	616	82	16.2	535	84	12.6	4.3	6.1	7.9
1750	103	766	77	22.4	639	81	16.1	556	83	12.6	4.3	6.1	7.9
1750	138	782	77	22.3	653	81	16.0	569	83	12.5	4.3	6.1	7.9
1750	207	799	76	22.1	669	80	15.9	582	83	12.4	4.3	6.1	7.9
2000	69	776	78	22.5	645	82	16.0	559	84	12.5	4.5	6.4	8.2
2000	103	807	78	22.2	672	81	15.8	583	84	12.3	4.5	6.4	8.2
2000	138	826	77	22.0	688	81	15.8	598	83	12.3	4.5	6.4	8.2
2000	207	846	77	21.8	706	81	15.7	614	83	12.3	4.5	6.4	8.2
2250	69	806	79	22.2	668	82	15.8	578	84	12.3	4.6	6.6	8.5
2250	103	841	78	21.9	698	82	15.6	605	84	12.1	4.6	6.6	8.5
2250	138	861	78	21.7	717	82	15.6	622	84	12.1	4.6	6.6	8.5
2250	207	884	77	21.5	737	81	15.4	639	83	12.0	4.6	6.6	8.5
2500	69	834	79	22.0	690	83	15.6	597	85	12.0	4.7	6.8	8.8
2500	103	872	79	21.7	723	82	15.4	626	84	12.0	4.7	6.8	8.8
2500	138	895	78	21.5	744	82	15.3	644	84	11.9	4.7	6.8	8.8
2500	207	921	78	21.3	766	81	15.2	664	84	11.8	4.7	6.8	8.8

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1414

69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - Triplexed - Double Circuit

25°C Earth Ambient

80°C - Aluminum Conductor - Concentric Strand

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 .0150 pf & Rho 60	90	120
						75% LF							
500	69	445	61	27.1	385	66	20.8	344	69	16.8	3.2	4.4	5.7
500	103	450	60	26.9	390	65	20.6	348	68	16.7	3.2	4.4	5.7
500	138	452	60	26.7	393	65	20.5	351	68	16.6	3.2	4.4	5.7
500	207	455	60	26.6	396	65	20.4	353	68	16.5	3.2	4.4	5.7
750	69	543	62	26.5	468	67	20.0	416	70	16.1	3.5	4.9	6.3
750	103	552	62	26.1	477	66	19.8	424	69	15.9	3.5	4.9	6.3
750	138	557	61	25.9	482	66	19.7	428	69	15.9	3.5	4.9	6.3
750	207	563	61	25.7	487	66	19.5	433	69	15.8	3.5	4.9	6.3
1000	69	624	63	26.2	535	68	19.6	474	70	15.6	3.7	5.3	6.8
1000	103	638	63	25.8	548	67	19.4	486	70	15.5	3.7	5.3	6.8
1000	138	646	63	25.6	556	67	19.3	493	70	15.4	3.7	5.3	6.8
1000	207	655	62	25.3	564	67	19.1	500	70	15.3	3.7	5.3	6.8
1250	69	691	65	26.1	590	69	19.4	520	71	15.5	3.9	5.6	7.2
1250	103	710	64	25.6	607	68	19.2	536	71	15.3	3.9	5.6	7.2
1250	138	721	64	25.4	617	68	19.0	546	71	15.2	3.9	5.6	7.2
1250	207	733	63	25.1	628	68	18.9	555	70	15.1	3.9	5.6	7.2
1500	69	748	65	26.0	636	69	19.2	559	72	15.2	4.1	5.9	7.6
1500	103	771	65	25.5	657	69	19.0	579	71	15.0	4.1	5.9	7.6
1500	138	785	64	25.2	670	69	18.8	591	71	15.0	4.1	5.9	7.6
1500	207	800	64	24.9	684	68	18.6	603	71	14.8	4.1	5.9	7.6
1750	69	796	66	25.8	675	70	19.0	592	72	15.0	4.3	6.1	7.9
1750	103	824	65	25.4	700	69	18.7	615	72	14.8	4.3	6.1	7.9
1750	138	841	65	25.0	716	69	18.6	629	72	14.7	4.3	6.1	7.9
1750	207	859	64	24.8	732	69	18.4	644	71	14.6	4.3	6.1	7.9
2000	69	838	67	25.7	708	71	18.8	620	73	14.8	4.5	6.4	8.2
2000	103	871	66	25.2	738	70	18.5	647	72	14.6	4.5	6.4	8.2
2000	138	890	66	24.9	755	70	18.4	663	72	14.6	4.5	6.4	8.2
2000	207	911	65	24.6	774	69	18.2	680	72	14.4	4.5	6.4	8.2
2250	69	872	67	25.5	735	71	18.6	642	73	14.6	4.6	6.6	8.5
2250	103	908	67	25.0	768	70	18.3	672	73	14.4	4.6	6.6	8.5
2250	138	930	66	24.7	787	70	18.2	690	72	14.3	4.6	6.6	8.5
2250	207	954	66	24.3	809	70	18.0	709	72	14.2	4.6	6.6	8.5
2500	69	903	68	25.4	760	71	18.4	663	73	14.4	4.7	6.8	8.8
2500	103	944	67	24.8	796	71	18.1	696	73	14.3	4.7	6.8	8.8
2500	138	968	66	24.5	818	70	18.0	715	73	14.2	4.7	6.8	8.8
2500	207	995	66	24.2	842	70	17.8	737	72	14.0	4.7	6.8	8.8

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - Triplexed - Double Circuit

25°C Earth Ambient

80°C - Aluminum Conductor - Concentric Strand

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 .0150 pf & Rho 60	90	120
						100% LF							
500	69	390	65	21.3	331	69	15.6	291	72	12.4	3.2	4.4	5.7
500	103	395	65	21.1	336	69	15.5	295	72	12.4	3.2	4.4	5.7
500	138	398	65	21.0	338	69	15.5	297	71	12.3	3.2	4.4	5.7
500	207	401	65	20.9	341	69	15.5	300	71	12.3	3.2	4.4	5.7
750	69	473	66	20.5	399	70	14.9	349	73	11.8	3.5	4.9	6.3
750	103	482	66	20.2	407	70	14.8	357	72	11.7	3.5	4.9	6.3
750	138	487	66	20.1	412	70	14.8	361	72	11.7	3.5	4.9	6.3
750	207	493	66	20.0	417	70	14.7	365	72	11.6	3.5	4.9	6.3
1000	69	541	68	20.0	454	71	14.5	396	73	11.4	3.7	5.3	6.8
1000	103	554	67	19.8	466	71	14.4	406	73	11.3	3.7	5.3	6.8
1000	138	562	67	19.6	472	71	14.3	413	73	11.2	3.7	5.3	6.8
1000	207	570	67	19.5	480	70	14.3	419	73	11.2	3.7	5.3	6.8
1250	69	596	69	19.8	498	72	14.3	433	74	11.1	3.9	5.6	7.2
1250	103	613	68	19.5	513	72	14.1	447	74	11.1	3.9	5.6	7.2
1250	138	623	68	19.4	522	71	14.0	455	73	11.0	3.9	5.6	7.2
1250	207	634	67	19.2	532	71	14.0	464	73	11.0	3.9	5.6	7.2
1500	69	642	69	19.5	534	73	14.0	463	74	10.9	4.1	5.9	7.6
1500	103	663	69	19.3	553	72	13.9	480	74	10.8	4.1	5.9	7.6
1500	138	676	68	19.1	565	72	13.8	491	74	10.8	4.1	5.9	7.6
1500	207	690	68	19.0	577	72	13.8	502	74	10.7	4.1	5.9	7.6
1750	69	680	70	19.3	565	73	13.8	489	75	10.8	4.3	6.1	7.9
1750	103	706	69	19.0	588	73	13.7	509	74	10.6	4.3	6.1	7.9
1750	138	722	69	18.9	601	72	13.6	521	74	10.6	4.3	6.1	7.9
1750	207	738	69	18.7	616	72	13.5	534	74	10.5	4.3	6.1	7.9
2000	69	714	70	19.1	591	73	13.5	510	75	10.5	4.5	6.4	8.2
2000	103	743	70	18.8	617	73	13.5	533	75	10.4	4.5	6.4	8.2
2000	138	761	69	18.7	633	73	13.3	547	75	10.4	4.5	6.4	8.2
2000	207	781	69	18.5	650	72	13.3	563	74	10.4	4.5	6.4	8.2
2250	69	740	71	18.8	611	74	13.4	527	75	10.4	4.6	6.6	8.5
2250	103	773	70	18.6	640	73	13.3	553	75	10.3	4.6	6.6	8.5
2250	138	793	70	18.4	658	73	13.2	568	75	10.2	4.6	6.6	8.5
2250	207	815	69	18.2	677	73	13.1	585	75	10.2	4.6	6.6	8.5
2500	69	765	71	18.6	631	74	13.2	543	76	10.2	4.7	6.8	8.8
2500	103	802	71	18.4	662	74	13.1	571	75	10.1	4.7	6.8	8.8
2500	138	824	70	18.2	682	73	13.0	588	75	10.1	4.7	6.8	8.8
2500	207	848	70	18.1	703	73	12.9	607	75	10.1	4.7	6.8	8.8

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1416

69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - Triplexed - Double Circuit

25°C Earth Ambient

65°C - Aluminum Conductor - Concentric Strand

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 .0150 pf & Rho 60	90	120
						75% LF							
500	69	383	51	19.8	330	55	15.0	293	57	12.1	3.2	4.4	5.7
500	103	387	51	19.5	334	55	14.9	297	57	12.0	3.2	4.4	5.7
500	138	390	51	19.4	337	55	14.8	299	57	11.9	3.2	4.4	5.7
500	207	393	51	19.3	340	54	14.7	302	57	11.9	3.2	4.4	5.7
750	69	466	52	19.2	399	56	14.5	352	58	11.5	3.5	4.9	6.3
750	103	474	52	19.0	407	55	14.4	359	58	11.5	3.5	4.9	6.3
750	138	479	52	18.8	412	55	14.3	364	57	11.5	3.5	4.9	6.3
750	207	484	52	18.6	417	55	14.2	368	57	11.4	3.5	4.9	6.3
1000	69	534	53	19.0	455	57	14.2	399	59	11.3	3.7	5.3	6.8
1000	103	547	53	18.7	467	56	14.0	410	58	11.2	3.7	5.3	6.8
1000	138	554	53	18.5	474	56	13.9	417	58	11.1	3.7	5.3	6.8
1000	207	562	52	18.4	481	56	13.8	423	58	11.1	3.7	5.3	6.8
1250	69	590	54	18.9	499	57	14.0	437	59	11.1	3.9	5.6	7.2
1250	103	607	54	18.6	515	57	13.8	451	59	11.0	3.9	5.6	7.2
1250	138	617	53	18.4	524	57	13.7	460	59	10.9	3.9	5.6	7.2
1250	207	628	53	18.2	534	56	13.6	469	58	10.8	3.9	5.6	7.2
1500	69	636	55	18.8	537	58	13.8	468	60	10.9	4.1	5.9	7.6
1500	103	658	54	18.5	556	57	13.7	485	59	10.8	4.1	5.9	7.6
1500	138	670	54	18.3	568	57	13.5	496	59	10.7	4.1	5.9	7.6
1500	207	684	54	18.1	580	57	13.5	508	59	10.7	4.1	5.9	7.6
1750	69	676	55	18.7	568	58	13.7	494	60	10.8	4.3	6.1	7.9
1750	103	701	55	18.4	591	58	13.5	514	60	10.6	4.3	6.1	7.9
1750	138	716	55	18.2	605	58	13.4	527	59	10.5	4.3	6.1	7.9
1750	207	733	54	18.0	620	57	13.2	541	59	10.5	4.3	6.1	7.9
2000	69	709	56	18.6	594	59	13.5	515	60	10.6	4.5	6.4	8.2
2000	103	739	55	18.3	620	58	13.3	539	60	10.4	4.5	6.4	8.2
2000	138	756	55	18.1	636	58	13.2	553	60	10.4	4.5	6.4	8.2
2000	207	776	55	17.8	654	58	13.1	569	59	10.3	4.5	6.4	8.2
2250	69	736	56	18.5	615	59	13.4	532	60	10.4	4.6	6.6	8.5
2250	103	769	56	18.1	644	58	13.2	558	60	10.3	4.6	6.6	8.5
2250	138	789	55	17.9	662	58	13.1	574	60	10.2	4.6	6.6	8.5
2250	207	811	55	17.7	681	58	12.9	592	60	10.2	4.6	6.6	8.5
2500	69	762	57	18.3	635	59	13.3	548	61	10.3	4.7	6.8	8.8
2500	103	798	56	18.0	666	59	13.1	576	60	10.2	4.7	6.8	8.8
2500	138	820	56	17.7	686	58	12.9	594	60	10.1	4.7	6.8	8.8
2500	207	844	55	17.5	708	58	12.8	614	60	10.1	4.7	6.8	8.8

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - Triplexed - Double Circuit

25°C Earth Ambient

65°C - Aluminum Conductor - Concentric Strand

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 .0150 pf & Rho 60	90	120
						100% LF							
500	69	336	55	15.5	283	58	11.4	248	59	9.1	3.2	4.4	5.7
500	103	340	54	15.5	288	57	11.4	251	59	9.0	3.2	4.4	5.7
500	138	343	54	15.4	290	57	11.3	253	59	9.0	3.2	4.4	5.7
500	207	346	54	15.3	292	57	11.3	256	59	9.0	3.2	4.4	5.7
750	69	406	55	14.9	340	58	10.9	296	60	8.6	3.5	4.9	6.3
750	103	414	55	14.8	348	58	10.8	302	60	8.6	3.5	4.9	6.3
750	138	419	55	14.7	352	58	10.8	306	60	8.5	3.5	4.9	6.3
750	207	424	55	14.6	356	58	10.7	310	60	8.5	3.5	4.9	6.3
1000	69	462	56	14.6	385	59	10.6	333	61	8.3	3.7	5.3	6.8
1000	103	474	56	14.4	396	59	10.5	343	60	8.3	3.7	5.3	6.8
1000	138	482	56	14.3	402	59	10.5	349	60	8.2	3.7	5.3	6.8
1000	207	489	56	14.3	409	58	10.4	355	60	8.2	3.7	5.3	6.8
1250	69	508	57	14.4	421	60	10.4	363	61	8.1	3.9	5.6	7.2
1250	103	524	57	14.3	435	59	10.3	376	61	8.1	3.9	5.6	7.2
1250	138	533	56	14.2	444	59	10.3	383	61	8.0	3.9	5.6	7.2
1250	207	543	56	14.0	453	59	10.2	391	60	8.0	3.9	5.6	7.2
1500	69	546	58	14.3	451	60	10.2	387	61	8.0	4.1	5.9	7.6
1500	103	565	57	14.1	468	60	10.1	403	61	7.9	4.1	5.9	7.6
1500	138	577	57	14.0	478	59	10.1	412	61	7.9	4.1	5.9	7.6
1500	207	590	57	13.8	490	59	10.0	422	61	7.8	4.1	5.9	7.6
1750	69	577	58	14.1	475	60	10.1	407	62	7.8	4.3	6.1	7.9
1750	103	601	58	13.9	495	60	10.0	425	61	7.8	4.3	6.1	7.9
1750	138	615	57	13.8	508	60	9.9	436	61	7.7	4.3	6.1	7.9
1750	207	630	57	13.7	521	60	9.8	448	61	7.7	4.3	6.1	7.9
2000	69	604	58	13.9	496	61	9.9	424	62	7.7	4.5	6.4	8.2
2000	103	631	58	13.7	519	60	9.8	444	62	7.6	4.5	6.4	8.2
2000	138	647	58	13.6	533	60	9.8	457	61	7.6	4.5	6.4	8.2
2000	207	665	57	13.5	548	60	9.7	471	61	7.5	4.5	6.4	8.2
2250	69	625	59	13.8	512	61	9.8	437	62	7.5	4.6	6.6	8.5
2250	103	655	58	13.6	537	60	9.6	459	62	7.5	4.6	6.6	8.5
2250	138	673	58	13.5	553	60	9.6	473	62	7.5	4.6	6.6	8.5
2250	207	693	58	13.3	570	60	9.6	488	61	7.4	4.6	6.6	8.5
2500	69	645	59	13.6	527	61	9.6	449	62	7.4	4.7	6.8	8.8
2500	103	677	59	13.4	554	61	9.5	473	62	7.4	4.7	6.8	8.8
2500	138	697	58	13.3	572	60	9.5	488	62	7.4	4.7	6.8	8.8
2500	207	720	58	13.2	591	60	9.4	505	62	7.3	4.7	6.8	8.8

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1418

69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - Triplexed - Double Circuit

25°C Earth Ambient

50°C - Aluminum Conductor - Concentric Strand

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 .0150 pf & Rho 60	90	120
						75% LF							
500	69	301	42	12.3	256	44	9.3	224	46	7.5	3.2	4.4	5.7
500	103	305	42	12.1	260	44	9.3	228	45	7.4	3.2	4.4	5.7
500	138	307	42	12.1	262	44	9.2	230	45	7.4	3.2	4.4	5.7
500	207	310	42	12.0	264	44	9.2	232	45	7.3	3.2	4.4	5.7
750	69	364	43	12.0	308	45	8.9	267	46	7.1	3.5	4.9	6.3
750	103	372	42	11.8	314	45	8.8	273	46	7.0	3.5	4.9	6.3
750	138	376	42	11.7	318	45	8.7	277	46	7.0	3.5	4.9	6.3
750	207	380	42	11.5	322	44	8.7	281	46	6.9	3.5	4.9	6.3
1000	69	416	43	11.8	348	45	8.8	300	47	6.9	3.7	5.3	6.8
1000	103	427	43	11.6	358	45	8.6	309	46	6.8	3.7	5.3	6.8
1000	138	433	43	11.5	364	45	8.5	315	46	6.7	3.7	5.3	6.8
1000	207	440	43	11.4	370	45	8.5	320	46	6.7	3.7	5.3	6.8
1250	69	457	44	11.7	381	46	8.6	326	47	6.7	3.9	5.6	7.2
1250	103	472	44	11.5	393	46	8.5	338	47	6.7	3.9	5.6	7.2
1250	138	480	43	11.4	401	45	8.4	345	47	6.6	3.9	5.6	7.2
1250	207	489	43	11.3	409	45	8.3	352	46	6.6	3.9	5.6	7.2
1500	69	492	44	11.7	407	46	8.5	347	47	6.6	4.1	5.9	7.6
1500	103	509	44	11.5	422	46	8.4	361	47	6.5	4.1	5.9	7.6
1500	138	520	44	11.3	432	46	8.3	369	47	6.5	4.1	5.9	7.6
1500	207	532	43	11.2	442	46	8.2	379	47	6.4	4.1	5.9	7.6
1750	69	520	45	11.6	428	46	8.4	364	47	6.5	4.3	6.1	7.9
1750	103	541	44	11.4	447	46	8.3	380	47	6.4	4.3	6.1	7.9
1750	138	554	44	11.2	458	46	8.2	390	47	6.4	4.3	6.1	7.9
1750	207	568	44	11.1	470	46	8.1	401	47	6.3	4.3	6.1	7.9
2000	69	544	45	11.5	446	47	8.2	377	48	6.3	4.5	6.4	8.2
2000	103	568	44	11.2	467	46	8.2	396	47	6.3	4.5	6.4	8.2
2000	138	583	44	11.1	480	46	8.1	407	47	6.3	4.5	6.4	8.2
2000	207	599	44	11.0	494	46	8.0	420	47	6.2	4.5	6.4	8.2
2250	69	563	45	11.4	460	47	8.1	388	48	6.2	4.6	6.6	8.5
2250	103	590	45	11.2	483	46	8.0	408	48	6.2	4.6	6.6	8.5
2250	138	606	44	11.0	497	46	7.9	420	47	6.2	4.6	6.6	8.5
2250	207	624	44	10.9	513	46	7.9	434	47	6.1	4.6	6.6	8.5
2500	69	581	45	11.3	473	47	8.1	397	48	6.1	4.7	6.8	8.8
2500	103	610	45	11.1	498	47	7.9	419	48	6.1	4.7	6.8	8.8
2500	138	628	45	10.9	513	46	7.9	432	48	6.1	4.7	6.8	8.8
2500	207	648	44	10.8	531	46	7.8	448	47	6.0	4.7	6.8	8.8

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - Triplexed - Double Circuit

25°C Earth Ambient

50°C - Aluminum Conductor - Concentric Strand

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 .0150 pf & Rho 60	90	120
						100% LF							
500	69	264	44	9.8	220	46	7.2	190	47	5.7	3.2	4.4	5.7
500	103	268	44	9.7	223	46	7.2	193	47	5.7	3.2	4.4	5.7
500	138	270	44	9.7	225	46	7.1	195	47	5.7	3.2	4.4	5.7
500	207	273	44	9.6	228	46	7.1	196	47	5.7	3.2	4.4	5.7
750	69	317	44	9.4	262	46	6.8	224	47	5.4	3.5	4.9	6.3
750	103	324	44	9.3	268	46	6.8	230	47	5.4	3.5	4.9	6.3
750	138	328	44	9.2	272	46	6.8	233	47	5.4	3.5	4.9	6.3
750	207	333	44	9.2	276	46	6.8	236	47	5.4	3.5	4.9	6.3
1000	69	360	45	9.2	295	47	6.7	251	48	5.2	3.7	5.3	6.8
1000	103	370	45	9.1	304	46	6.6	259	47	5.2	3.7	5.3	6.8
1000	138	376	45	9.1	309	46	6.6	263	47	5.2	3.7	5.3	6.8
1000	207	382	45	9.0	315	46	6.5	268	47	5.2	3.7	5.3	6.8
1250	69	394	45	9.1	321	47	6.5	271	48	5.1	3.9	5.6	7.2
1250	103	407	45	9.0	332	47	6.5	281	48	5.1	3.9	5.6	7.2
1250	138	415	45	8.9	339	47	6.5	287	48	5.1	3.9	5.6	7.2
1250	207	423	45	8.8	347	47	6.4	294	48	5.1	3.9	5.6	7.2
1500	69	421	46	9.0	341	47	6.4	287	48	5.0	4.1	5.9	7.6
1500	103	437	46	8.9	355	47	6.4	299	48	4.9	4.1	5.9	7.6
1500	138	447	45	8.8	364	47	6.3	307	48	4.9	4.1	5.9	7.6
1500	207	458	45	8.7	373	47	6.3	315	48	4.9	4.1	5.9	7.6
1750	69	444	46	8.9	358	47	6.3	300	48	4.9	4.3	6.1	7.9
1750	103	463	46	8.7	374	47	6.2	314	48	4.9	4.3	6.1	7.9
1750	138	475	46	8.7	384	47	6.2	323	48	4.9	4.3	6.1	7.9
1750	207	488	45	8.6	395	47	6.2	332	48	4.9	4.3	6.1	7.9
2000	69	463	46	8.8	372	48	6.2	310	48	4.9	4.5	6.4	8.2
2000	103	485	46	8.6	390	47	6.2	326	48	4.8	4.5	6.4	8.2
2000	138	498	46	8.6	402	47	6.1	336	48	4.8	4.5	6.4	8.2
2000	207	513	46	8.5	414	47	6.1	347	48	4.8	4.5	6.4	8.2
2250	69	478	46	8.7	382	48	6.1	318	48	4.7	4.6	6.6	8.5
2250	103	502	46	8.5	402	48	6.1	335	48	4.7	4.6	6.6	8.5
2250	138	517	46	8.5	415	47	6.0	346	48	4.7	4.6	6.6	8.5
2250	207	533	46	8.4	429	47	6.0	358	48	4.7	4.6	6.6	8.5
2500	69	491	47	8.6	392	48	6.0	325	49	4.7	4.7	6.8	8.8
2500	103	518	46	8.5	414	48	6.0	343	48	4.7	4.7	6.8	8.8
2500	138	534	46	8.4	427	48	6.0	355	48	4.6	4.7	6.8	8.8
2500	207	552	46	8.3	443	47	5.9	368	48	4.6	4.7	6.8	8.8

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - Triplexed - Double Circuit

25°C Earth Ambient

Total Watts/ft for 90°C - Aluminum Conductor - Concentric Strand

		60 Rho		90 Rho		120 Rho	
		75 LF	100 LF	75 LF	100 LF	75 LF	100 LF
Condr Size	Shield Res						
500	69	71.4	55.9	54.6	41.2	44.3	32.6
500	103	70.7	55.5	54.2	40.9	44.1	32.4
500	138	70.4	55.0	54.1	40.9	43.8	32.3
500	207	70.0	54.8	53.9	40.6	43.7	32.3
750	69	75.7	58.4	57.3	42.7	46.2	33.7
750	103	74.6	57.8	56.8	42.4	45.8	33.6
750	138	74.2	57.5	56.6	42.3	45.6	33.4
750	207	73.5	57.2	56.2	42.1	45.4	33.4
1000	69	79.8	60.8	59.9	44.1	48.0	34.6
1000	103	78.5	60.1	59.3	43.8	47.5	34.4
1000	138	78.0	59.7	59.0	43.5	47.4	34.3
1000	207	77.2	59.3	58.6	43.4	47.0	34.3
1250	69	83.0	62.6	61.9	45.3	49.3	35.4
1250	103	81.6	61.8	61.1	44.8	48.7	35.1
1250	138	80.8	61.5	60.7	44.6	48.5	35.0
1250	207	80.0	61.0	60.2	44.3	48.2	34.9
1500	69	85.7	64.2	63.5	46.1	50.3	36.0
1500	103	84.1	63.5	62.7	45.7	49.9	35.7
1500	138	83.4	63.0	62.2	45.5	49.6	35.5
1500	207	82.4	62.4	61.6	45.2	49.2	35.4
1750	69	88.1	65.5	64.9	46.9	51.3	36.5
1750	103	86.5	64.7	64.1	46.4	50.8	36.2
1750	138	85.4	64.2	63.5	46.1	50.4	36.1
1750	207	84.3	63.6	63.0	45.9	50.1	35.9
2000	69	90.1	66.7	66.2	47.5	52.2	36.9
2000	103	88.4	65.8	65.2	47.1	51.6	36.6
2000	138	87.4	65.3	64.7	46.8	51.3	36.5
2000	207	86.3	64.7	64.1	46.5	50.8	36.3
2250	69	92.0	67.7	67.3	48.1	52.9	37.3
2250	103	90.2	66.9	66.3	47.6	52.4	37.0
2250	138	89.1	66.2	65.8	47.4	51.9	36.9
2250	207	87.9	65.6	65.1	47.1	51.6	36.7
2500	69	93.5	68.6	68.2	48.6	53.5	37.7
2500	103	91.7	67.7	67.2	48.1	53.0	37.4
2500	138	90.6	67.0	66.6	47.9	52.5	37.2
2500	207	89.4	66.5	66.0	47.6	52.1	37.1

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - Triplexed - Double Circuit

25°C Earth Ambient

Total Watts/ft for 80°C - Aluminum Conductor - Concentric Strand

		60 Rho		90 Rho		120 Rho	
		75 LF	100 LF	75 LF	100 LF	75 LF	100 LF
Condr Size	Shield Res						
500	69	60.6	47.2	46.1	34.9	37.4	27.6
500	103	60.0	46.9	45.8	34.8	37.1	27.5
500	138	59.4	46.7	45.7	34.6	37.0	27.4
500	207	59.1	46.6	45.5	34.5	36.8	27.4
750	69	64.1	49.5	48.5	36.2	39.1	28.5
750	103	63.2	49.0	48.1	35.9	38.7	28.4
750	138	62.7	48.7	47.8	35.8	38.4	28.3
750	207	62.3	48.6	47.5	35.7	38.3	28.2
1000	69	67.5	51.6	50.6	37.5	40.5	29.4
1000	103	66.5	51.0	50.0	37.2	40.2	29.2
1000	138	65.9	50.8	49.8	36.9	39.9	29.2
1000	207	65.4	50.4	49.4	36.8	39.7	29.0
1250	69	70.2	53.2	52.3	38.4	41.5	30.0
1250	103	69.1	52.5	51.6	38.0	41.1	29.8
1250	138	68.4	52.1	51.1	37.8	40.9	29.7
1250	207	67.7	51.7	50.8	37.6	40.6	29.6
1500	69	72.5	54.5	53.6	39.1	42.4	30.4
1500	103	71.1	53.7	52.8	38.7	42.0	30.2
1500	138	70.4	53.3	52.5	38.6	41.8	30.2
1500	207	69.6	52.9	52.1	38.3	41.4	30.0
1750	69	74.4	55.6	54.8	39.8	43.2	30.9
1750	103	73.1	54.9	54.0	39.5	42.7	30.7
1750	138	72.3	54.5	53.6	39.1	42.4	30.5
1750	207	71.4	53.9	53.1	38.9	42.1	30.4
2000	69	76.3	56.7	55.8	40.3	43.9	31.3
2000	103	74.9	55.8	55.1	40.0	43.5	31.0
2000	138	73.9	55.3	54.5	39.7	43.1	30.9
2000	207	72.9	54.9	54.0	39.5	42.7	30.8
2250	69	77.8	57.4	56.7	40.7	44.5	31.6
2250	103	76.3	56.6	56.0	40.4	44.0	31.4
2250	138	75.4	56.2	55.4	40.2	43.7	31.2
2250	207	74.4	55.6	54.9	39.9	43.3	31.1
2500	69	79.1	58.2	57.5	41.3	45.0	31.9
2500	103	77.7	57.5	56.7	40.8	44.6	31.7
2500	138	76.6	56.9	56.2	40.6	44.2	31.5
2500	207	75.6	56.3	55.6	40.3	43.8	31.4

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1422

69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - Triplexed - Double Circuit

25°C Earth Ambient

Total Watts/ft for 65°C - Aluminum Conductor - Concentric Strand

		60 Rho		90 Rho		120 Rho	
		75 LF	100 LF	75 LF	100 LF	75 LF	100 LF
Condr Size	Shield Res						
500	69	44.1	34.6	33.5	25.4	27.0	20.2
500	103	43.4	34.2	33.1	25.4	26.8	20.0
500	138	43.2	34.1	33.1	25.3	26.7	20.0
500	207	43.0	34.0	33.0	25.1	26.6	20.0
750	69	46.7	36.3	35.1	26.5	28.1	20.9
750	103	45.9	35.9	34.8	26.3	27.8	20.7
750	138	45.6	35.7	34.6	26.2	27.8	20.6
750	207	45.2	35.5	34.4	26.0	27.6	20.6
1000	69	49.1	37.7	36.7	27.3	29.1	21.4
1000	103	48.3	37.2	36.3	27.1	28.8	21.3
1000	138	47.8	37.1	36.0	27.0	28.7	21.3
1000	207	47.3	36.8	35.7	26.9	28.5	21.2
1250	69	51.1	38.9	37.7	28.0	29.8	21.9
1250	103	50.2	38.4	37.2	27.7	29.5	21.8
1250	138	49.6	38.1	36.9	27.7	29.4	21.6
1250	207	49.1	37.7	36.6	27.5	29.2	21.5
1500	69	52.6	39.9	38.7	28.6	30.5	22.2
1500	103	51.7	39.3	38.2	28.3	30.1	22.1
1500	138	51.1	39.0	37.9	28.1	29.9	22.0
1500	207	50.5	38.6	37.5	28.0	29.8	21.9
1750	69	54.1	40.6	39.5	29.0	31.0	22.5
1750	103	53.0	40.1	39.0	28.7	30.6	22.4
1750	138	52.3	39.8	38.7	28.6	30.4	22.3
1750	207	51.7	39.4	38.3	28.4	30.2	22.2
2000	69	55.2	41.3	40.1	29.4	31.4	22.8
2000	103	54.2	40.8	39.6	29.2	31.1	22.6
2000	138	53.5	40.4	39.2	29.0	30.8	22.6
2000	207	52.8	40.1	38.9	28.7	30.6	22.5
2250	69	56.3	42.0	40.8	29.8	31.8	23.1
2250	103	55.2	41.4	40.2	29.5	31.4	22.9
2250	138	54.6	41.1	39.9	29.3	31.2	22.8
2250	207	53.8	40.6	39.4	29.1	31.0	22.7
2500	69	57.3	42.5	41.4	30.1	32.1	23.3
2500	103	56.2	41.9	40.7	29.8	31.8	23.1
2500	138	55.5	41.5	40.4	29.7	31.6	23.0
2500	207	54.7	41.2	40.0	29.5	31.4	22.9

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - Triplexed - Double Circuit

25°C Earth Ambient

Total Watts/ft for 50°C - Aluminum Conductor - Concentric Strand

		60 Rho		90 Rho		120 Rho	
		75 LF	100 LF	75 LF	100 LF	75 LF	100 LF
Condr Size	Shield Res						
500	69	27.4	21.8	20.6	16.0	16.5	12.7
500	103	27.1	21.6	20.5	15.9	16.5	12.7
500	138	26.9	21.5	20.4	15.8	16.4	12.7
500	207	26.8	21.4	20.2	15.9	16.3	12.5
750	69	28.9	22.8	21.7	16.7	17.2	13.1
750	103	28.6	22.5	21.4	16.5	17.0	13.1
750	138	28.4	22.4	21.3	16.5	17.0	13.0
750	207	28.0	22.3	21.1	16.4	16.9	12.9
1000	69	30.5	23.8	22.5	17.2	17.7	13.5
1000	103	30.0	23.5	22.2	17.1	17.5	13.4
1000	138	29.7	23.3	22.1	17.0	17.5	13.3
1000	207	29.4	23.1	21.9	16.9	17.3	13.3
1250	69	31.6	24.5	23.2	17.6	18.1	13.7
1250	103	31.1	24.2	22.8	17.4	17.9	13.6
1250	138	30.7	24.0	22.7	17.4	17.8	13.6
1250	207	30.4	23.7	22.5	17.3	17.7	13.6
1500	69	32.6	25.0	23.7	17.9	18.4	13.9
1500	103	32.0	24.7	23.3	17.8	18.2	13.9
1500	138	31.6	24.5	23.2	17.7	18.1	13.8
1500	207	31.3	24.3	22.9	17.6	18.0	13.8
1750	69	33.4	25.6	24.1	18.2	18.7	14.1
1750	103	32.8	25.2	23.8	18.0	18.5	14.1
1750	138	32.4	25.0	23.6	17.9	18.4	14.0
1750	207	32.0	24.8	23.3	17.8	18.2	13.9
2000	69	34.1	26.0	24.5	18.5	18.9	14.3
2000	103	33.5	25.7	24.2	18.3	18.7	14.2
2000	138	33.1	25.4	24.0	18.2	18.6	14.2
2000	207	32.6	25.2	23.7	18.1	18.5	14.1
2250	69	34.7	26.4	24.8	18.7	19.1	14.5
2250	103	34.1	26.1	24.5	18.5	18.9	14.4
2250	138	33.6	25.8	24.3	18.4	18.7	14.3
2250	207	33.2	25.5	24.0	18.3	18.6	14.3
2500	69	35.3	26.7	25.1	18.9	19.2	14.6
2500	103	34.6	26.4	24.8	18.7	19.1	14.5
2500	138	34.2	26.1	24.5	18.6	18.9	14.4
2500	207	33.7	25.9	24.3	18.5	18.8	14.4

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - Triplexed - Double Circuit

25°C Earth Ambient

Size	Res	OD	Wd	Rac	Qs	Ri	Rj	Re @ 90 Rho & loss factor 75%	100%
			90°C - Aluminum Conductor - Concentric Strand						
500	69	2.679	0.51	44.75	1.110	1.95	0.27	3.96	5.81
500	103	2.679	0.51	44.75	1.076	1.95	0.27	3.96	5.81
500	138	2.679	0.51	44.75	1.057	1.95	0.27	3.96	5.81
500	207	2.679	0.51	44.75	1.038	1.95	0.27	3.96	5.81
750	69	2.918	0.57	30.05	1.167	1.72	0.32	3.84	5.69
750	103	2.918	0.57	30.05	1.115	1.72	0.32	3.84	5.69
750	138	2.918	0.57	30.05	1.087	1.72	0.32	3.84	5.69
750	207	2.918	0.57	30.05	1.058	1.72	0.32	3.84	5.69
1000	69	3.107	0.63	22.78	1.220	1.56	0.30	3.75	5.60
1000	103	3.107	0.63	22.78	1.152	1.56	0.30	3.75	5.60
1000	138	3.107	0.63	22.78	1.114	1.56	0.30	3.75	5.60
1000	207	3.107	0.63	22.78	1.077	1.56	0.30	3.75	5.60
1250	69	3.240	0.68	18.49	1.269	1.45	0.28	3.69	5.55
1250	103	3.240	0.68	18.49	1.185	1.45	0.28	3.69	5.55
1250	138	3.240	0.68	18.49	1.140	1.45	0.28	3.69	5.55
1250	207	3.240	0.68	18.49	1.094	1.45	0.28	3.69	5.55
1500	69	3.360	0.72	15.67	1.315	1.36	0.27	3.64	5.49
1500	103	3.360	0.72	15.67	1.217	1.36	0.27	3.64	5.49
1500	138	3.360	0.72	15.67	1.164	1.36	0.27	3.64	5.49
1500	207	3.360	0.72	15.67	1.110	1.36	0.27	3.64	5.49
1750	69	3.470	0.76	13.69	1.359	1.29	0.26	3.60	5.45
1750	103	3.470	0.76	13.69	1.247	1.29	0.26	3.60	5.45
1750	138	3.470	0.76	13.69	1.186	1.29	0.26	3.60	5.45
1750	207	3.470	0.76	13.69	1.125	1.29	0.26	3.60	5.45
2000	69	3.573	0.80	12.24	1.399	1.22	0.26	3.55	5.41
2000	103	3.573	0.80	12.24	1.275	1.22	0.26	3.55	5.41
2000	138	3.573	0.80	12.24	1.207	1.22	0.26	3.55	5.41
2000	207	3.573	0.80	12.24	1.139	1.22	0.26	3.55	5.41
2250	69	3.668	0.83	11.23	1.433	1.17	0.25	3.52	5.37
2250	103	3.668	0.83	11.23	1.298	1.17	0.25	3.52	5.37
2250	138	3.668	0.83	11.23	1.225	1.17	0.25	3.52	5.37
2250	207	3.668	0.83	11.23	1.151	1.17	0.25	3.52	5.37
2500	69	3.759	0.86	10.36	1.467	1.13	0.24	3.48	5.34
2500	103	3.759	0.86	10.36	1.322	1.13	0.24	3.48	5.34
2500	138	3.759	0.86	10.36	1.242	1.13	0.24	3.48	5.34
2500	207	3.759	0.86	10.36	1.163	1.13	0.24	3.48	5.34

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - Triplexed - Double Circuit

25°C Earth Ambient

Size	Res	OD	Wd	Rac	Qs	Ri	Rj	Re @ 90 Rho & loss factor 75%	100%
			80°C - Aluminum Conductor - Concentric Strand						
500	69	2.679	0.51	44.75	1.110	1.95	0.27	3.96	5.81
500	103	2.679	0.51	44.75	1.076	1.95	0.27	3.96	5.81
500	138	2.679	0.51	44.75	1.057	1.95	0.27	3.96	5.81
500	207	2.679	0.51	44.75	1.038	1.95	0.27	3.96	5.81
750	69	2.918	0.57	30.05	1.167	1.72	0.32	3.84	5.69
750	103	2.918	0.57	30.05	1.115	1.72	0.32	3.84	5.69
750	138	2.918	0.57	30.05	1.087	1.72	0.32	3.84	5.69
750	207	2.918	0.57	30.05	1.058	1.72	0.32	3.84	5.69
1000	69	3.107	0.63	22.78	1.220	1.56	0.30	3.75	5.60
1000	103	3.107	0.63	22.78	1.152	1.56	0.30	3.75	5.60
1000	138	3.107	0.63	22.78	1.114	1.56	0.30	3.75	5.60
1000	207	3.107	0.63	22.78	1.077	1.56	0.30	3.75	5.60
1250	69	3.240	0.68	18.49	1.269	1.45	0.28	3.69	5.55
1250	103	3.240	0.68	18.49	1.185	1.45	0.28	3.69	5.55
1250	138	3.240	0.68	18.49	1.140	1.45	0.28	3.69	5.55
1250	207	3.240	0.68	18.49	1.094	1.45	0.28	3.69	5.55
1500	69	3.360	0.72	15.67	1.315	1.36	0.27	3.64	5.49
1500	103	3.360	0.72	15.67	1.217	1.36	0.27	3.64	5.49
1500	138	3.360	0.72	15.67	1.164	1.36	0.27	3.64	5.49
1500	207	3.360	0.72	15.67	1.110	1.36	0.27	3.64	5.49
1750	69	3.470	0.76	13.69	1.359	1.29	0.26	3.60	5.45
1750	103	3.470	0.76	13.69	1.247	1.29	0.26	3.60	5.45
1750	138	3.470	0.76	13.69	1.186	1.29	0.26	3.60	5.45
1750	207	3.470	0.76	13.69	1.125	1.29	0.26	3.60	5.45
2000	69	3.573	0.80	12.24	1.399	1.22	0.26	3.55	5.41
2000	103	3.573	0.80	12.24	1.275	1.22	0.26	3.55	5.41
2000	138	3.573	0.80	12.24	1.207	1.22	0.26	3.55	5.41
2000	207	3.573	0.80	12.24	1.139	1.22	0.26	3.55	5.41
2250	69	3.668	0.83	11.23	1.433	1.17	0.25	3.52	5.37
2250	103	3.668	0.83	11.23	1.298	1.17	0.25	3.52	5.37
2250	138	3.668	0.83	11.23	1.225	1.17	0.25	3.52	5.37
2250	207	3.668	0.83	11.23	1.151	1.17	0.25	3.52	5.37
2500	69	3.759	0.86	10.36	1.467	1.13	0.24	3.48	5.34
2500	103	3.759	0.86	10.36	1.322	1.13	0.24	3.48	5.34
2500	138	3.759	0.86	10.36	1.242	1.13	0.24	3.48	5.34
2500	207	3.759	0.86	10.36	1.163	1.13	0.24	3.48	5.34

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - Triplexed - Double Circuit

25°C Earth Ambient

Size	Res	OD	Wd	Rac	Qs	Ri	Rj	Re @ 90 Rho & loss factor 75%	100%
			65°C - Aluminum Conductor - Concentric Strand						
500	69	2.679	0.51	44.75	1.110	1.95	0.27	3.96	5.81
500	103	2.679	0.51	44.75	1.076	1.95	0.27	3.96	5.81
500	138	2.679	0.51	44.75	1.057	1.95	0.27	3.96	5.81
500	207	2.679	0.51	44.75	1.038	1.95	0.27	3.96	5.81
750	69	2.918	0.57	30.05	1.167	1.72	0.32	3.84	5.69
750	103	2.918	0.57	30.05	1.115	1.72	0.32	3.84	5.69
750	138	2.918	0.57	30.05	1.087	1.72	0.32	3.84	5.69
750	207	2.918	0.57	30.05	1.058	1.72	0.32	3.84	5.69
1000	69	3.107	0.63	22.78	1.220	1.56	0.30	3.75	5.60
1000	103	3.107	0.63	22.78	1.152	1.56	0.30	3.75	5.60
1000	138	3.107	0.63	22.78	1.114	1.56	0.30	3.75	5.60
1000	207	3.107	0.63	22.78	1.077	1.56	0.30	3.75	5.60
1250	69	3.240	0.68	18.49	1.269	1.45	0.28	3.69	5.55
1250	103	3.240	0.68	18.49	1.185	1.45	0.28	3.69	5.55
1250	138	3.240	0.68	18.49	1.140	1.45	0.28	3.69	5.55
1250	207	3.240	0.68	18.49	1.094	1.45	0.28	3.69	5.55
1500	69	3.360	0.72	15.67	1.315	1.36	0.27	3.64	5.49
1500	103	3.360	0.72	15.67	1.217	1.36	0.27	3.64	5.49
1500	138	3.360	0.72	15.67	1.164	1.36	0.27	3.64	5.49
1500	207	3.360	0.72	15.67	1.110	1.36	0.27	3.64	5.49
1750	69	3.470	0.76	13.69	1.359	1.29	0.26	3.60	5.45
1750	103	3.470	0.76	13.69	1.247	1.29	0.26	3.60	5.45
1750	138	3.470	0.76	13.69	1.186	1.29	0.26	3.60	5.45
1750	207	3.470	0.76	13.69	1.125	1.29	0.26	3.60	5.45
2000	69	3.573	0.80	12.24	1.399	1.22	0.26	3.55	5.41
2000	103	3.573	0.80	12.24	1.275	1.22	0.26	3.55	5.41
2000	138	3.573	0.80	12.24	1.207	1.22	0.26	3.55	5.41
2000	207	3.573	0.80	12.24	1.139	1.22	0.26	3.55	5.41
2250	69	3.668	0.83	11.23	1.433	1.17	0.25	3.52	5.37
2250	103	3.668	0.83	11.23	1.298	1.17	0.25	3.52	5.37
2250	138	3.668	0.83	11.23	1.225	1.17	0.25	3.52	5.37
2250	207	3.668	0.83	11.23	1.151	1.17	0.25	3.52	5.37
2500	69	3.759	0.86	10.36	1.467	1.13	0.24	3.48	5.34
2500	103	3.759	0.86	10.36	1.322	1.13	0.24	3.48	5.34
2500	138	3.759	0.86	10.36	1.242	1.13	0.24	3.48	5.34
2500	207	3.759	0.86	10.36	1.163	1.13	0.24	3.48	5.34

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - Triplexed - Double Circuit

25°C Earth Ambient

Size	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	0.51	44.75	1.110	1.95	0.27	3.96	5.81
500	103	2.679	0.51	44.75	1.076	1.95	0.27	3.96	5.81
500	138	2.679	0.51	44.75	1.057	1.95	0.27	3.96	5.81
500	207	2.679	0.51	44.75	1.038	1.95	0.27	3.96	5.81
750	69	2.918	0.57	30.05	1.167	1.72	0.32	3.84	5.69
750	103	2.918	0.57	30.05	1.115	1.72	0.32	3.84	5.69
750	138	2.918	0.57	30.05	1.087	1.72	0.32	3.84	5.69
750	207	2.918	0.57	30.05	1.058	1.72	0.32	3.84	5.69
1000	69	3.107	0.63	22.78	1.220	1.56	0.30	3.75	5.60
1000	103	3.107	0.63	22.78	1.152	1.56	0.30	3.75	5.60
1000	138	3.107	0.63	22.78	1.114	1.56	0.30	3.75	5.60
1000	207	3.107	0.63	22.78	1.077	1.56	0.30	3.75	5.60
1250	69	3.240	0.68	18.49	1.269	1.45	0.28	3.69	5.55
1250	103	3.240	0.68	18.49	1.185	1.45	0.28	3.69	5.55
1250	138	3.240	0.68	18.49	1.140	1.45	0.28	3.69	5.55
1250	207	3.240	0.68	18.49	1.094	1.45	0.28	3.69	5.55
1500	69	3.360	0.72	15.67	1.315	1.36	0.27	3.64	5.49
1500	103	3.360	0.72	15.67	1.217	1.36	0.27	3.64	5.49
1500	138	3.360	0.72	15.67	1.164	1.36	0.27	3.64	5.49
1500	207	3.360	0.72	15.67	1.110	1.36	0.27	3.64	5.49
1750	69	3.470	0.76	13.69	1.359	1.29	0.26	3.60	5.45
1750	103	3.470	0.76	13.69	1.247	1.29	0.26	3.60	5.45
1750	138	3.470	0.76	13.69	1.186	1.29	0.26	3.60	5.45
1750	207	3.470	0.76	13.69	1.125	1.29	0.26	3.60	5.45
2000	69	3.573	0.80	12.24	1.399	1.22	0.26	3.55	5.41
2000	103	3.573	0.80	12.24	1.275	1.22	0.26	3.55	5.41
2000	138	3.573	0.80	12.24	1.207	1.22	0.26	3.55	5.41
2000	207	3.573	0.80	12.24	1.139	1.22	0.26	3.55	5.41
2250	69	3.668	0.83	11.23	1.433	1.17	0.25	3.52	5.37
2250	103	3.668	0.83	11.23	1.298	1.17	0.25	3.52	5.37
2250	138	3.668	0.83	11.23	1.225	1.17	0.25	3.52	5.37
2250	207	3.668	0.83	11.23	1.151	1.17	0.25	3.52	5.37
2500	69	3.759	0.86	10.36	1.467	1.13	0.24	3.48	5.34
2500	103	3.759	0.86	10.36	1.322	1.13	0.24	3.48	5.34
2500	138	3.759	0.86	10.36	1.242	1.13	0.24	3.48	5.34
2500	207	3.759	0.86	10.36	1.163	1.13	0.24	3.48	5.34

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - 1 Circuit - Three Cables - Spaced

25°C Earth Ambient

90°C - Aluminum Conductor - Concentric Strand

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 .0150 pf & Rho 60	90	120
						75% LF							
500	69	543	59	32.4	485	65	25.9	442	70	21.7	1.7	2.4	3.0
500	103	555	58	31.2	497	65	25.1	453	69	21.0	1.7	2.4	3.0
500	138	565	57	29.9	506	64	24.2	462	68	20.4	1.8	2.4	3.0
500	207	576	56	28.4	518	63	23.1	474	67	19.4	1.8	2.4	3.0
750	69	643	61	33.0	571	67	26.2	518	72	21.7	1.9	2.5	3.1
750	103	665	60	31.7	592	67	25.3	538	71	21.1	1.9	2.5	3.1
750	138	683	59	30.5	610	66	24.5	554	70	20.4	1.9	2.5	3.4
750	207	706	59	28.8	630	65	23.2	574	69	19.4	2.0	2.7	3.4
1000	69	725	63	34.1	638	69	26.6	576	73	21.8	2.0	2.7	3.4
1000	103	755	62	32.6	667	68	25.7	604	73	21.1	2.0	2.7	3.4
1000	138	780	61	31.3	692	68	24.8	627	72	20.5	2.0	2.7	3.4
1000	207	815	60	29.5	724	67	23.5	656	71	19.4	2.0	2.9	3.6
1000	Open	896	56	23.4	805	63	19.1	737	67	16.0	2.1	2.9	3.6
1250	69	789	65	34.9	691	71	26.9	621	75	21.9	2.1	2.8	3.5
1250	103	827	64	33.4	727	70	25.9	655	74	21.2	2.1	2.8	3.5
1250	138	860	63	32.1	758	69	25.1	685	73	20.6	2.1	2.8	3.5
1250	207	904	62	30.2	801	68	23.8	724	72	19.7	2.1	2.8	3.8
1250	Open	1015	57	23.3	910	64	18.9	831	68	15.9	2.3	3.0	3.8
1500	69	842	67	35.4	734	72	27.1	658	76	21.9	2.2	3.0	3.7
1500	103	887	65	34.0	776	71	26.1	698	75	21.3	2.2	3.0	3.7
1500	138	927	64	32.6	813	70	25.4	733	74	20.7	2.2	3.0	3.7
1500	207	980	63	30.7	865	70	24.0	781	74	19.8	2.2	3.0	4.0
1500	Open	1122	58	23.3	1003	65	18.8	913	69	15.7	2.3	3.2	4.0
1750	69	886	68	35.8	770	73	27.2	688	77	21.9	2.3	3.1	3.9
1750	103	939	67	34.3	818	72	26.3	733	76	21.2	2.3	3.1	3.9
1750	138	984	66	32.9	861	71	25.4	773	75	20.7	2.3	3.1	3.9
1750	207	1047	64	30.9	920	70	24.1	829	74	19.7	2.3	3.1	3.9
1750	Open	1218	59	23.2	1086	65	18.6	987	70	15.5	2.4	3.3	4.2
2000	Open	1306	60	23.2	1161	66	18.5	1054	70	15.4	2.5	3.4	4.3
2250	Open	1380	60	23.1	1225	66	18.3	1110	71	15.2	2.6	3.5	4.5
2500	Open	1453	61	23.1	1287	67	18.3	1165	71	15.1	2.7	3.6	4.6

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - 1 Circuit - Three Cables - Spaced

25°C Earth Ambient

90°C - Aluminum Conductor - Concentric Strand

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 .0150 pf & Rho 60	90	120
						100% LF							
500	69	489	65	26.4	426	71	20.2	382	75	16.4	1.7	2.4	3.0
500	103	500	64	25.5	438	70	19.7	393	74	16.0	1.7	2.4	3.0
500	138	510	63	24.5	447	70	19.1	402	74	15.5	1.8	2.4	3.0
500	207	522	62	23.4	459	69	18.3	413	73	15.0	1.8	2.4	3.0
750	69	578	68	26.8	501	73	20.3	446	77	16.2	1.9	2.5	3.1
750	103	598	67	25.8	519	73	19.6	464	76	15.8	1.9	2.5	3.1
750	138	614	66	24.9	534	72	19.0	478	75	15.3	1.9	2.5	3.4
750	207	634	65	23.4	554	71	18.1	497	74	14.7	2.0	2.7	3.4
1000	69	646	70	27.2	557	75	20.4	495	79	16.2	2.0	2.7	3.4
1000	103	675	69	26.2	583	74	19.8	518	78	15.7	2.0	2.7	3.4
1000	138	699	68	25.3	604	74	19.1	538	77	15.2	2.0	2.7	3.4
1000	207	728	67	23.7	631	72	18.1	564	76	14.5	2.0	2.9	3.6
1000	Open	811	62	19.3	713	69	15.1	642	73	12.4	2.1	2.9	3.6
1250	69	699	71	27.5	599	76	20.4	531	79	16.3	2.1	2.8	3.5
1250	103	735	70	26.5	632	76	19.8	561	79	15.8	2.1	2.8	3.5
1250	138	766	70	25.6	659	75	19.2	585	78	15.3	2.1	2.8	3.5
1250	207	805	68	24.2	694	74	18.2	618	77	14.5	2.1	2.8	3.8
1250	Open	916	63	19.1	802	70	14.9	721	73	12.1	2.3	3.0	3.8
1500	69	742	72	27.7	633	77	20.3	560	80	16.1	2.2	3.0	3.7
1500	103	785	71	26.7	672	77	19.8	595	80	15.7	2.2	3.0	3.7
1500	138	822	71	25.8	706	76	19.2	625	79	15.2	2.2	3.0	3.7
1500	207	871	70	24.3	748	75	18.2	664	78	14.6	2.2	3.0	4.0
1500	Open	1009	64	19.0	881	70	14.7	790	74	11.9	2.3	3.2	4.0
1750	69	778	73	27.7	662	78	20.3	584	81	16.0	2.3	3.1	3.9
1750	103	827	72	26.7	705	77	19.7	624	80	15.6	2.3	3.1	3.9
1750	138	869	72	25.9	744	77	19.2	659	80	15.2	2.3	3.1	3.9
1750	207	927	71	24.4	794	76	18.2	703	79	14.4	2.3	3.1	3.9
1750	Open	1093	65	18.8	952	71	14.5	852	75	11.8	2.4	3.3	4.2
2000	Open	1168	66	18.7	1015	72	14.3	907	75	11.7	2.5	3.4	4.3
2250	Open	1232	66	18.5	1068	72	14.2	954	76	11.5	2.6	3.5	4.5
2500	Open	1294	67	18.4	1120	73	14.0	999	76	11.4	2.7	3.6	4.6

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1430

69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - 1 Circuit - Three Cables - Spaced

25°C Earth Ambient

80°C - Aluminum Conductor - Concentric Strand

		60 Rho			90 Rho			120 Rho			delta Td for .0150 pf & Rho		
		Amps	Interface Temp °C	Flux w/ft²	Amps	Interface Temp °C	Flux w/ft²	Amps	Interface Temp °C	Flux w/ft²	60	90	120
Condr Size	Shield Res												
						75% LF							
500	69	501	54	27.8	447	60	22.2	406	63	18.5	1.7	2.3	3.0
500	103	512	53	26.8	458	59	21.7	417	63	18.0	1.7	2.4	3.0
500	138	522	53	25.9	467	58	20.8	426	62	17.4	1.8	2.4	3.0
500	207	534	52	24.4	479	57	19.8	437	61	16.7	1.8	2.4	3.0
750	69	591	56	28.4	523	61	22.4	474	65	18.5	1.9	2.5	3.1
750	103	610	55	27.4	542	61	21.7	492	64	18.1	1.9	2.5	3.1
750	138	628	55	26.3	559	60	21.1	508	64	17.5	1.9	2.5	3.4
750	207	651	54	24.9	581	59	19.9	528	63	16.6	1.9	2.7	3.4
1000	69	664	58	29.1	583	63	22.7	525	66	18.6	2.0	2.7	3.4
1000	103	690	57	28.2	608	62	22.0	549	66	18.1	2.0	2.7	3.4
1000	138	715	56	27.0	632	62	21.3	572	65	17.6	2.0	2.7	3.4
1000	207	749	55	25.4	665	61	20.3	601	64	16.7	2.0	2.9	3.6
1000	Open	834	52	19.7	749	57	16.1	685	61	13.5	2.1	2.9	3.6
1250	69	720	60	29.9	629	64	23.0	565	68	18.6	2.1	2.8	3.5
1250	103	754	59	28.8	661	64	22.3	595	67	18.2	2.1	2.8	3.5
1250	138	785	58	27.7	690	63	21.6	622	66	17.7	2.1	2.8	3.5
1250	207	828	57	26.1	732	62	20.5	661	66	16.9	2.1	2.8	3.8
1250	Open	945	52	19.7	846	58	15.9	771	62	13.4	2.3	3.0	3.8
1500	69	767	61	30.4	666	66	23.1	596	68	18.6	2.2	3.0	3.7
1500	103	807	60	29.2	704	65	22.4	631	68	18.2	2.2	3.0	3.7
1500	138	844	59	28.1	739	64	21.7	664	67	17.7	2.2	3.0	3.7
1500	207	896	58	26.4	788	63	20.6	711	67	16.9	2.2	3.0	3.7
1500	Open	1043	53	19.7	931	59	15.9	847	62	13.3	2.3	3.2	4.0
1750	69	806	62	30.6	698	66	23.1	623	69	18.6	2.3	3.1	3.9
1750	103	852	61	29.5	740	66	22.5	662	68	18.2	2.3	3.1	3.9
1750	138	895	60	28.4	780	65	21.8	699	68	17.6	2.3	3.1	3.9
1750	207	955	59	26.6	837	64	20.7	753	67	16.8	2.3	3.1	3.9
1750	Open	1132	54	19.7	1008	59	15.7	915	63	13.1	2.4	3.3	4.2
2000	Open	1213	54	19.6	1077	60	15.6	976	63	13.0	2.5	3.4	4.3
2250	Open	1281	55	19.6	1135	60	15.5	1028	64	12.9	2.6	3.5	4.5
2500	Open	1348	55	19.5	1192	61	15.4	1078	64	12.8	2.7	3.6	4.6

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - 1 Circuit - Three Cables - Spaced

25°C Earth Ambient

80°C - Aluminum Conductor - Concentric Strand

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 .0150 pf & Rho 60	90	120
						100% LF							
500	69	451	59	22.7	392	64	17.4	351	68	14.0	1.7	2.3	3.0
500	103	462	59	22.0	403	64	16.8	361	67	13.7	1.7	2.4	3.0
500	138	471	58	21.2	412	63	16.4	370	66	13.4	1.8	2.4	3.0
500	207	483	57	20.1	424	62	15.7	381	66	12.8	1.8	2.4	3.0
750	69	530	61	22.9	459	66	17.4	408	69	13.9	1.9	2.5	3.1
750	103	549	61	22.3	475	66	16.9	424	69	13.6	1.9	2.5	3.1
750	138	565	60	21.5	490	65	16.4	437	68	13.2	1.9	2.5	3.4
750	207	585	59	20.2	510	64	15.6	456	67	12.6	1.9	2.7	3.4
1000	69	591	63	23.2	508	68	17.5	451	71	13.9	2.0	2.7	3.4
1000	103	616	62	22.5	531	67	17.0	472	70	13.5	2.0	2.7	3.4
1000	138	640	62	21.8	552	67	16.4	490	69	13.2	2.0	2.7	3.4
1000	207	669	61	20.5	579	66	15.5	516	69	12.5	2.0	2.9	3.6
1000	Open	755	57	16.4	663	62	12.8	597	65	10.4	2.1	2.9	3.6
1250	69	637	64	23.6	545	69	17.4	482	71	13.8	2.1	2.8	3.5
1250	103	669	64	22.9	574	68	17.0	509	71	13.6	2.1	2.8	3.5
1250	138	699	63	22.0	601	68	16.5	532	70	13.1	2.1	2.8	3.5
1250	207	738	62	20.9	635	67	15.6	564	70	12.5	2.1	2.8	3.8
1250	Open	852	58	16.3	746	63	12.6	669	66	10.3	2.3	3.0	3.8
1500	69	675	65	23.6	575	69	17.4	507	72	13.8	2.2	3.0	3.7
1500	103	713	65	23.0	609	69	16.9	538	72	13.4	2.2	3.0	3.7
1500	138	747	64	22.2	640	69	16.5	567	71	13.1	2.2	3.0	3.7
1500	207	796	63	21.0	682	68	15.7	604	70	12.5	2.2	3.0	3.7
1500	Open	938	58	16.1	819	64	12.4	733	67	10.1	2.3	3.2	4.0
1750	69	706	66	23.8	599	70	17.3	528	72	13.6	2.3	3.1	3.9
1750	103	749	65	23.0	638	70	17.0	563	72	13.3	2.3	3.1	3.9
1750	138	789	65	22.2	674	69	16.4	595	72	13.0	2.3	3.1	3.9
1750	207	846	64	21.1	723	69	15.6	639	71	12.4	2.3	3.1	3.9
1750	Open	1015	59	16.0	883	64	12.3	790	67	10.0	2.4	3.3	4.2
2000	Open	1085	60	15.8	942	65	12.2	840	68	9.8	2.5	3.4	4.3
2250	Open	1143	60	15.7	990	65	12.0	882	68	9.7	2.6	3.5	4.5
2500	Open	1200	60	15.6	1038	65	11.9	924	68	9.7	2.7	3.6	4.6

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1432

69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - 1 Circuit - Three Cables - Spaced

25°C Earth Ambient

65°C - Aluminum Conductor - Concentric Strand

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 .0150 pf & Rho 60	90	120
						75% LF							
500	69	428	47	20.7	380	51	16.4	345	53	13.7	1.7	2.3	3.0
500	103	437	46	20.1	389	50	16.1	353	53	13.4	1.7	2.3	3.0
500	138	446	46	19.4	398	50	15.5	361	53	13.0	1.7	2.4	3.0
500	207	458	45	18.3	409	49	14.7	373	52	12.4	1.8	2.4	3.0
750	69	502	48	21.1	442	52	16.5	399	55	13.6	1.9	2.5	3.1
750	103	517	48	20.4	457	52	16.1	413	54	13.4	1.9	2.5	3.1
750	138	532	47	19.6	472	51	15.6	427	54	13.0	1.9	2.5	3.1
750	207	555	47	18.6	493	51	14.9	447	53	12.3	1.9	2.7	3.4
1000	69	560	50	21.6	490	53	16.7	440	56	13.6	2.0	2.7	3.4
1000	103	581	49	21.0	510	53	16.4	458	55	13.3	2.0	2.7	3.4
1000	138	603	48	20.2	530	52	15.9	478	55	13.0	2.0	2.7	3.4
1000	207	634	48	19.1	561	52	15.0	506	54	12.4	2.0	2.7	3.6
1000	Open	723	45	14.4	647	49	11.7	590	51	9.8	2.1	2.9	3.6
1250	69	605	51	22.2	526	54	16.9	470	57	13.7	2.1	2.8	3.5
1250	103	632	50	21.5	551	54	16.5	493	56	13.4	2.1	2.8	3.5
1250	138	659	50	20.6	576	53	16.0	517	56	13.1	2.1	2.8	3.5
1250	207	698	49	19.5	614	53	15.2	553	55	12.5	2.1	2.8	3.5
1250	Open	818	45	14.4	730	49	11.6	663	52	9.7	2.3	3.0	3.8
1500	69	642	52	22.4	555	55	16.9	495	57	13.6	2.2	3.0	3.7
1500	103	673	51	21.7	584	55	16.6	521	57	13.4	2.2	3.0	3.7
1500	138	705	50	20.9	614	54	16.0	549	56	13.1	2.2	3.0	3.7
1500	207	753	49	19.8	659	53	15.3	591	56	12.5	2.2	3.0	3.7
1500	Open	902	46	14.3	802	50	11.5	728	53	9.7	2.3	3.2	4.0
1750	69	672	53	22.6	579	56	17.0	515	58	13.6	2.3	3.1	3.9
1750	103	708	52	21.9	612	55	16.6	545	57	13.3	2.3	3.1	3.9
1750	138	745	51	21.1	646	55	16.1	576	57	13.0	2.3	3.1	3.9
1750	207	799	50	19.9	697	54	15.3	623	56	12.4	2.3	3.1	3.9
1750	Open	978	46	14.3	867	50	11.4	785	53	9.5	2.4	3.3	4.2
2000	Open	1046	47	14.2	926	51	11.3	836	53	9.4	2.5	3.4	4.3
2250	Open	1104	47	14.2	975	51	11.2	879	54	9.4	2.6	3.5	4.5
2500	Open	1160	47	14.1	1022	51	11.2	920	54	9.2	2.7	3.6	4.6

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - 1 Circuit - Three Cables - Spaced

25°C Earth Ambient

65°C - Aluminum Conductor - Concentric Strand

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 .0150 pf & Rho 60	90	120
						100% LF							
500	69	385	51	16.8	334	54	12.8	298	56	10.4	1.7	2.3	3.0
500	103	394	50	16.4	342	54	12.5	306	56	10.1	1.7	2.3	3.0
500	138	402	50	15.8	350	53	12.3	313	56	10.0	1.7	2.4	3.0
500	207	414	49	15.1	362	53	11.7	324	55	9.6	1.8	2.4	3.0
750	69	449	52	17.0	387	56	12.8	343	58	10.2	1.9	2.5	3.1
750	103	464	52	16.6	401	55	12.6	356	57	10.1	1.9	2.5	3.1
750	138	479	51	16.1	414	55	12.2	368	57	9.8	1.9	2.5	3.1
750	207	498	50	15.2	432	54	11.5	385	56	9.3	1.9	2.7	3.4
1000	69	497	53	17.2	426	57	12.8	377	59	10.2	2.0	2.7	3.4
1000	103	518	53	16.8	444	56	12.5	394	58	10.1	2.0	2.7	3.4
1000	138	538	52	16.2	463	56	12.3	410	58	9.7	2.0	2.7	3.4
1000	207	567	52	15.4	488	55	11.6	433	57	9.3	2.0	2.7	3.6
1000	Open	655	48	11.9	573	52	9.3	514	55	7.6	2.1	2.9	3.6
1250	69	534	54	17.4	455	57	12.9	401	59	10.1	2.1	2.8	3.5
1250	103	559	54	17.0	477	57	12.6	422	59	10.0	2.1	2.8	3.5
1250	138	585	53	16.5	501	57	12.3	442	59	9.8	2.1	2.8	3.5
1250	207	623	53	15.7	533	56	11.7	471	58	9.3	2.1	2.8	3.5
1250	Open	738	49	11.8	644	53	9.2	576	55	7.5	2.3	3.0	3.8
1500	69	564	55	17.5	478	58	12.8	420	60	10.1	2.2	3.0	3.7
1500	103	593	54	17.1	504	57	12.5	444	59	9.9	2.2	3.0	3.7
1500	138	623	54	16.6	531	57	12.3	468	59	9.7	2.2	3.0	3.7
1500	207	668	53	15.7	571	57	11.7	503	59	9.2	2.2	3.0	3.7
1500	Open	812	50	11.7	706	53	9.1	630	56	7.4	2.3	3.2	4.0
1750	69	588	55	17.5	497	58	12.8	436	60	10.0	2.3	3.1	3.9
1750	103	621	55	17.1	526	58	12.4	462	60	9.8	2.3	3.1	3.9
1750	138	655	55	16.6	556	58	12.2	490	59	9.6	2.3	3.1	3.9
1750	207	706	54	15.7	602	57	11.7	529	59	9.2	2.3	3.1	3.9
1750	Open	877	50	11.7	760	54	9.0	677	56	7.3	2.4	3.3	4.2
2000	Open	936	50	11.5	810	54	8.9	720	56	7.2	2.5	3.4	4.3
2250	Open	985	51	11.5	850	54	8.7	755	57	7.1	2.6	3.5	4.5
2500	Open	1033	51	11.4	890	55	8.7	789	57	7.0	2.7	3.6	4.6

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - 1 Circuit - Three Cables - Spaced

25°C Earth Ambient

50°C - Aluminum Conductor - Concentric Strand

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 .0150 pf & Rho 60	90	120
						75% LF							
500	69	337	39	13.1	297	42	10.4	267	43	8.6	1.7	2.3	3.0
500	103	343	39	12.8	303	41	10.3	273	43	8.4	1.7	2.3	3.0
500	138	350	39	12.4	311	41	10.0	280	43	8.3	1.7	2.3	3.0
500	207	361	38	11.8	321	41	9.4	290	42	7.8	1.8	2.4	3.0
750	69	391	40	13.4	342	43	10.3	307	44	8.5	1.9	2.5	3.1
750	103	401	40	13.1	352	42	10.2	316	44	8.4	1.9	2.5	3.1
750	138	414	39	12.6	364	42	9.9	327	44	8.1	1.9	2.5	3.1
750	207	433	39	11.9	382	42	9.4	344	43	7.9	1.9	2.5	3.4
1000	69	434	41	13.6	377	43	10.4	336	45	8.5	2.0	2.7	3.4
1000	103	448	41	13.4	390	43	10.3	348	44	8.4	2.0	2.7	3.4
1000	138	465	40	12.9	406	43	10.1	363	44	8.1	2.0	2.7	3.4
1000	207	492	40	12.2	431	42	9.6	386	44	7.9	2.0	2.7	3.4
1000	Open	576	38	9.0	512	40	7.3	464	42	6.1	2.1	2.9	3.6
1250	69	467	42	13.9	402	44	10.6	357	45	8.5	2.1	2.8	3.5
1250	103	485	41	13.7	419	44	10.4	372	45	8.4	2.1	2.8	3.5
1250	138	505	41	13.2	438	43	10.1	390	45	8.1	2.1	2.8	3.5
1250	207	539	40	12.5	469	43	9.7	419	44	7.9	2.1	2.8	3.5
1250	Open	650	38	9.0	576	41	7.2	520	42	6.0	2.3	3.0	3.8
1500	69	493	42	14.1	423	44	10.6	373	46	8.4	2.2	3.0	3.7
1500	103	514	42	13.8	442	44	10.5	391	45	8.3	2.2	3.0	3.7
1500	138	539	42	13.4	464	44	10.1	412	45	8.2	2.2	3.0	3.7
1500	207	578	41	12.6	500	43	9.7	445	45	7.8	2.2	3.0	3.7
1500	Open	716	39	9.0	632	41	7.2	569	43	5.9	2.3	3.2	4.0
1750	69	514	43	14.2	439	45	10.6	387	46	8.4	2.3	3.1	3.9
1750	103	539	42	13.9	461	44	10.3	407	46	8.3	2.3	3.1	3.9
1750	138	566	42	13.4	486	44	10.1	430	45	8.1	2.3	3.1	3.9
1750	207	611	41	12.8	527	44	9.7	467	45	7.8	2.3	3.1	3.9
1750	Open	775	39	8.9	682	41	7.2	612	43	5.8	2.4	3.3	4.2
2000	Open	828	39	8.9	726	42	7.1	650	43	5.8	2.5	3.4	4.3
2250	Open	872	39	8.9	763	42	7.0	682	43	5.7	2.6	3.5	4.5
2500	Open	915	40	8.8	799	42	6.9	712	44	5.7	2.7	3.6	4.6

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - 1 Circuit - Three Cables - Spaced

25°C Earth Ambient

50°C - Aluminum Conductor - Concentric Strand

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 .0150 pf & Rho 60	90	120
						100% LF							
500	69	302	42	10.7	260	44	8.1	230	45	6.6	1.7	2.3	3.0
500	103	309	41	10.6	266	44	8.0	236	45	6.4	1.7	2.3	3.0
500	138	315	41	10.3	273	43	7.8	242	45	6.3	1.7	2.3	3.0
500	207	326	41	9.7	282	43	7.4	252	44	6.1	1.8	2.4	3.0
750	69	350	42	10.9	299	45	8.1	263	46	6.4	1.9	2.5	3.1
750	103	359	42	10.6	308	44	8.0	272	46	6.4	1.9	2.5	3.1
750	138	371	42	10.3	319	44	7.9	281	45	6.3	1.9	2.5	3.1
750	207	389	41	9.8	334	44	7.5	296	45	6.0	1.9	2.5	3.4
1000	69	385	43	10.9	327	45	8.1	287	46	6.4	2.0	2.7	3.4
1000	103	398	43	10.7	339	45	8.0	298	46	6.4	2.0	2.7	3.4
1000	138	414	43	10.4	354	45	7.7	311	46	6.1	2.0	2.7	3.4
1000	207	440	42	10.0	375	44	7.4	330	46	5.9	2.0	2.7	3.4
1000	Open	521	40	7.5	454	42	5.9	404	44	4.8	2.1	2.9	3.6
1250	69	411	44	11.0	347	46	8.1	304	47	6.4	2.1	2.8	3.5
1250	103	428	43	10.8	362	45	8.0	317	47	6.2	2.1	2.8	3.5
1250	138	448	43	10.5	380	45	7.8	333	46	6.2	2.1	2.8	3.5
1250	207	479	43	10.0	407	45	7.4	357	46	5.9	2.1	2.8	3.5
1250	Open	587	40	7.4	508	43	5.8	451	44	4.7	2.3	3.0	3.8
1500	69	432	44	11.0	363	46	8.1	317	47	6.3	2.2	3.0	3.7
1500	103	452	44	10.8	381	46	8.0	332	47	6.3	2.2	3.0	3.7
1500	138	475	44	10.6	401	46	7.7	350	47	6.1	2.2	3.0	3.7
1500	207	511	43	10.1	434	45	7.5	379	46	5.9	2.2	3.0	3.7
1500	Open	644	41	7.4	556	43	5.7	492	45	4.7	2.3	3.2	4.0
1750	69	449	44	11.0	376	46	7.9	327	47	6.3	2.3	3.1	3.9
1750	103	472	44	10.9	396	46	7.9	344	47	6.2	2.3	3.1	3.9
1750	138	497	44	10.6	418	46	7.7	365	47	6.1	2.3	3.1	3.9
1750	207	539	44	10.1	455	46	7.5	397	47	5.8	2.3	3.1	3.9
1750	Open	695	41	7.4	598	43	5.6	528	45	4.6	2.4	3.3	4.2
2000	Open	741	41	7.3	635	44	5.6	560	45	4.5	2.5	3.4	4.3
2250	Open	778	42	7.3	666	44	5.5	585	45	4.5	2.6	3.5	4.5
2500	Open	815	42	7.2	695	44	5.5	610	45	4.4	2.7	3.6	4.6

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - 1 Circuit - Three Cables - Spaced

25°C Earth Ambient

Total Watts/ft for 90°C - Aluminum Conductor - Concentric Strand

		60 Rho		90 Rho		120 Rho	
		75 LF	100 LF	75 LF	100 LF	75 LF	100 LF
Condr Size	Shield Res						
500	69	62.5	51.0	50.2	39.1	41.9	31.7
500	103	60.9	49.7	49.2	38.5	41.1	31.3
500	138	59.5	48.8	48.0	37.8	40.3	30.9
500	207	57.2	47.2	46.5	36.9	39.2	30.1
750	69	67.8	55.1	53.8	41.9	44.6	33.5
750	103	66.3	54.0	52.9	41.1	44.0	33.2
750	138	64.8	52.7	52.0	40.3	43.2	32.6
750	207	62.5	50.7	50.1	39.2	41.9	31.8
1000	69	73.2	58.5	57.1	44.0	46.9	35.1
1000	103	71.5	57.5	56.2	43.4	46.5	34.7
1000	138	69.7	56.4	55.3	42.6	45.7	34.2
1000	207	67.4	54.2	53.6	41.2	44.4	33.3
1000	Open	56.8	46.9	46.2	36.7	39.0	30.1
1250	69	77.2	61.0	59.7	45.4	48.6	36.1
1250	103	75.4	60.0	58.7	44.9	48.1	35.8
1250	138	73.7	58.9	57.7	44.1	47.5	35.2
1250	207	71.1	56.8	56.3	42.7	46.3	34.3
1250	Open	59.1	48.5	47.9	37.7	40.3	30.8
1500	69	80.5	63.0	61.7	46.5	50.0	36.8
1500	103	78.7	62.1	60.7	46.1	49.5	36.6
1500	138	77.0	61.0	59.7	45.6	49.0	36.2
1500	207	74.2	59.1	58.3	44.2	47.9	35.3
1500	Open	61.2	49.9	49.3	38.5	41.2	31.4
1750	69	83.2	64.7	63.4	47.5	51.1	37.4
1750	103	81.5	63.8	62.4	47.0	50.6	37.3
1750	138	79.7	62.7	61.6	46.5	50.1	37.0
1750	207	77.1	60.9	60.0	45.3	49.2	36.0
1750	Open	62.9	51.1	50.5	39.3	42.1	32.0
2000	Open	64.5	52.1	51.5	39.9	42.9	32.4
2250	Open	66.0	53.1	52.5	40.5	43.6	32.8
2500	Open	67.4	54.0	53.4	41.1	44.2	33.2

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - 1 Circuit - Three Cables - Spaced

25°C Earth Ambient

Total Watts/ft for 80°C - Aluminum Conductor - Concentric Strand

		60 Rho		90 Rho		120 Rho	
		75 LF	100 LF	75 LF	100 LF	75 LF	100 LF
Condr Size	Shield Res						
500	69	53.5	43.6	42.9	33.3	35.6	27.0
500	103	52.2	42.8	42.1	32.9	35.1	26.7
500	138	51.0	41.8	41.1	32.4	34.5	26.4
500	207	49.1	40.4	39.8	31.5	33.4	25.7
750	69	58.1	47.0	45.8	35.7	38.0	28.6
750	103	56.7	46.3	45.1	35.1	37.5	28.3
750	138	55.5	45.3	44.3	34.5	36.9	27.8
750	207	53.5	43.6	43.0	33.5	35.8	27.1
1000	69	62.6	50.0	48.7	37.4	39.8	29.9
1000	103	61.0	49.0	47.8	36.9	39.3	29.6
1000	138	59.8	48.3	47.1	36.4	38.9	29.1
1000	207	57.7	46.4	45.9	35.3	37.8	28.4
1000	Open	48.0	39.7	39.1	31.0	33.0	25.5
1250	69	65.9	52.0	50.7	38.6	41.3	30.6
1250	103	64.4	51.2	50.0	38.2	40.9	30.5
1250	138	63.0	50.4	49.1	37.8	40.3	30.0
1250	207	60.8	48.7	48.0	36.6	39.5	29.3
1250	Open	50.0	41.1	40.5	32.0	34.0	26.1
1500	69	68.8	53.7	52.4	39.6	42.4	31.3
1500	103	67.3	53.0	51.7	39.2	42.0	31.1
1500	138	65.8	52.0	51.0	38.8	41.6	30.9
1500	207	63.5	50.6	49.6	37.7	40.8	30.0
1500	Open	51.7	42.2	41.6	32.7	34.8	26.6
1750	69	71.1	55.1	53.9	40.3	43.4	31.8
1750	103	69.6	54.3	53.1	40.0	42.9	31.7
1750	138	68.2	53.5	52.4	39.7	42.5	31.4
1750	207	65.9	52.2	51.1	38.7	41.8	30.8
1750	Open	53.2	43.2	42.7	33.3	35.6	27.1
2000	Open	54.6	44.2	43.6	33.9	36.2	27.4
2250	Open	55.8	45.0	44.4	34.4	36.8	27.8
2500	Open	57.0	45.7	45.1	34.8	37.4	28.1

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried – 1 Circuit - Three Cables - Spaced

25°C Earth Ambient

Total Watts/ft for 65°C - Aluminum Conductor - Concentric Strand

		60 Rho		90 Rho		120 Rho	
		75 LF	100 LF	75 LF	100 LF	75 LF	100 LF
Condr Size	Shield Res						
500	69	39.4	32.2	31.4	24.6	26.2	19.9
500	103	38.6	31.7	30.9	24.3	25.7	19.7
500	138	37.8	31.0	30.4	23.9	25.3	19.4
500	207	36.3	30.0	29.3	23.3	24.6	18.9
750	69	42.9	34.7	33.6	26.2	27.7	20.9
750	103	42.0	34.2	33.2	26.0	27.4	20.8
750	138	41.0	33.6	32.7	25.5	27.0	20.5
750	207	39.7	32.3	31.7	24.7	26.4	20.0
1000	69	46.1	36.7	35.7	27.5	29.2	21.9
1000	103	45.1	36.3	35.2	27.1	28.8	21.8
1000	138	44.3	35.6	34.6	26.9	28.5	21.5
1000	207	42.7	34.5	33.8	26.1	27.9	20.9
1000	Open	34.9	29.0	28.4	22.6	23.9	18.6
1250	69	48.5	38.2	37.2	28.3	30.1	22.4
1250	103	47.7	37.7	36.7	28.0	29.8	22.4
1250	138	46.7	37.2	36.2	27.8	29.5	22.1
1250	207	45.0	36.3	35.3	27.1	29.0	21.6
1250	Open	36.4	30.0	29.4	23.3	24.6	19.1
1500	69	50.5	39.5	38.3	29.0	30.9	22.9
1500	103	49.6	39.0	37.9	28.7	30.6	22.8
1500	138	48.6	38.4	37.4	28.5	30.3	22.6
1500	207	47.1	37.5	36.6	28.0	29.8	22.2
1500	Open	37.6	30.9	30.2	23.9	25.3	19.5
1750	69	52.1	40.4	39.3	29.5	31.6	23.3
1750	103	51.2	40.0	38.9	29.3	31.3	23.1
1750	138	50.4	39.5	38.5	29.1	31.0	23.1
1750	207	48.7	38.5	37.6	28.6	30.5	22.6
1750	Open	38.7	31.6	30.9	24.3	25.8	19.7
2000	Open	39.7	32.2	31.6	24.7	26.2	20.1
2250	Open	40.6	32.8	32.2	25.1	26.7	20.3
2500	Open	41.4	33.3	32.7	25.4	27.0	20.5

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - 1 Circuit - Three Cables - Spaced

25°C Earth Ambient

Total Watts/ft for 50°C - Aluminum Conductor - Concentric Strand

		60 Rho		90 Rho		120 Rho	
		75 LF	100 LF	75 LF	100 LF	75 LF	100 LF
Condr Size	Shield Res						
500	69	25.1	20.4	19.8	15.5	16.3	12.5
500	103	24.6	20.3	19.6	15.4	16.2	12.5
500	138	24.1	19.8	19.3	15.2	16.0	12.3
500	207	23.2	19.2	18.7	14.8	15.5	12.1
750	69	27.1	22.0	21.1	16.5	17.3	13.2
750	103	26.6	21.6	20.9	16.4	17.2	13.2
750	138	26.1	21.3	20.6	16.2	17.0	13.0
750	207	25.2	20.7	20.0	15.7	16.6	12.7
1000	69	29.1	23.3	22.4	17.3	18.2	13.8
1000	103	28.6	23.0	22.1	17.2	18.0	13.7
1000	138	28.1	22.6	21.8	17.1	17.8	13.6
1000	207	27.2	22.1	21.3	16.6	17.5	13.3
1000	Open	21.9	18.2	17.7	14.3	14.9	11.7
1250	69	30.6	24.2	23.2	17.8	18.7	14.1
1250	103	30.1	23.9	23.0	17.7	18.6	14.0
1250	138	29.5	23.7	22.7	17.6	18.4	14.0
1250	207	28.7	23.1	22.2	17.2	18.1	13.7
1250	Open	22.7	18.9	18.3	14.7	15.3	12.0
1500	69	31.7	24.9	23.9	18.2	19.1	14.4
1500	103	31.3	24.7	23.7	18.1	19.0	14.3
1500	138	30.8	24.4	23.4	18.0	18.9	14.2
1500	207	29.8	23.8	22.9	17.8	18.6	14.1
1500	Open	23.5	19.4	18.8	15.0	15.6	12.2
1750	69	32.7	25.5	24.5	18.5	19.5	14.6
1750	103	32.3	25.3	24.2	18.5	19.4	14.5
1750	138	31.7	25.0	24.0	18.3	19.3	14.5
1750	207	30.9	24.5	23.5	18.1	19.0	14.3
1750	Open	24.2	19.9	19.2	15.3	15.9	12.4
2000	Open	24.8	20.3	19.6	15.6	16.2	12.6
2250	Open	25.3	20.7	20.0	15.8	16.5	12.8
2500	Open	25.8	21.0	20.3	16.0	16.6	12.9

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1440

69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - 1 Circuit - Three Cables - Spaced

25°C Earth Ambient

Size	Res	OD	Wd	Rac	Qs	Ri	Rj	Re @ 90 Rho & loss factor 75%	100%
			90°C - Aluminum Conductor - Concentric Strand						
500	69	2.679	0.51	44.70	1.486	1.95	0.27	2.41	3.57
500	103	2.679	0.51	44.70	1.385	1.95	0.27	2.41	3.57
500	138	2.679	0.51	44.70	1.308	1.95	0.27	2.41	3.57
500	207	2.679	0.51	44.70	1.216	1.95	0.27	2.41	3.57
750	69	2.918	0.57	30.02	1.868	1.72	0.32	2.18	3.53
750	103	2.918	0.57	30.02	1.692	1.72	0.32	2.18	3.53
750	138	2.918	0.57	30.02	1.554	1.72	0.32	2.18	3.53
750	207	2.918	0.57	30.02	1.304	1.72	0.32	2.37	3.53
1000	69	3.107	0.63	22.74	2.109	1.56	0.30	2.15	3.19
1000	103	3.107	0.63	22.74	1.879	1.56	0.30	2.15	3.50
1000	138	3.107	0.63	22.74	1.701	1.56	0.30	2.15	3.50
1000	207	3.107	0.63	22.74	1.384	1.56	0.30	2.34	3.50
1000	Open	3.107	0.63	22.74	1.004	1.56	0.30	2.34	3.50
1250	69	3.240	0.68	18.39	2.330	1.45	0.28	2.13	3.17
1250	103	3.240	0.68	18.39	2.049	1.45	0.28	2.13	3.17
1250	138	3.240	0.68	18.39	1.834	1.45	0.28	2.13	3.48
1250	207	3.240	0.68	18.39	1.581	1.45	0.28	2.13	3.48
1250	Open	3.240	0.68	18.39	1.005	1.45	0.28	2.32	3.48
1500	69	3.360	0.72	15.55	2.534	1.36	0.27	2.12	3.15
1500	103	3.360	0.72	15.55	2.204	1.36	0.27	2.12	3.15
1500	138	3.360	0.72	15.55	1.956	1.36	0.27	2.12	3.15
1500	207	3.360	0.72	15.55	1.665	1.36	0.27	2.12	3.46
1500	Open	3.360	0.72	15.55	1.007	1.36	0.27	2.31	3.46
1750	69	3.470	0.76	13.54	2.720	1.29	0.26	2.10	3.14
1750	103	3.470	0.76	13.54	2.345	1.29	0.26	2.10	3.14
1750	138	3.470	0.76	13.54	2.066	1.29	0.26	2.10	3.14
1750	207	3.470	0.76	13.54	1.740	1.29	0.26	2.10	3.45
1750	Open	3.470	0.76	13.54	1.008	1.29	0.26	2.29	3.45
2000	Open	3.573	0.80	12.06	1.010	1.22	0.26	2.28	3.43
2250	Open	3.668	0.83	11.02	1.012	1.17	0.25	2.27	3.42
2500	Open	3.759	0.86	10.12	1.013	1.13	0.24	2.25	3.41

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - 1 Circuit - Three Cables - Spaced

25°C Earth Ambient

Size	Res	OD	Wd	Rac	Qs	Ri	Rj	Re @ 90 Rho & loss factor 75%	Re @ 90 Rho & loss factor 100%
				80°C - Aluminum Conductor - Concentric Strand					
500	69	2.679	0.51	44.70	1.486	1.95	0.27	2.41	3.57
500	103	2.679	0.51	44.70	1.385	1.95	0.27	2.41	3.57
500	138	2.679	0.51	44.70	1.308	1.95	0.27	2.41	3.57
500	207	2.679	0.51	44.70	1.216	1.95	0.27	2.41	3.57
750	69	2.918	0.57	30.02	1.868	1.72	0.32	2.18	3.53
750	103	2.918	0.57	30.02	1.692	1.72	0.32	2.18	3.53
750	138	2.918	0.57	30.02	1.554	1.72	0.32	2.18	3.53
750	207	2.918	0.57	30.02	1.304	1.72	0.32	2.37	3.53
1000	69	3.107	0.63	22.74	2.109	1.56	0.30	2.15	3.19
1000	103	3.107	0.63	22.74	1.879	1.56	0.30	2.15	3.50
1000	138	3.107	0.63	22.74	1.701	1.56	0.30	2.15	3.50
1000	207	3.107	0.63	22.74	1.384	1.56	0.30	2.34	3.50
1000	Open	3.107	0.63	22.74	1.004	1.56	0.30	2.34	3.50
1250	69	3.240	0.68	18.39	2.330	1.45	0.28	2.13	3.17
1250	103	3.240	0.68	18.39	2.049	1.45	0.28	2.13	3.17
1250	138	3.240	0.68	18.39	1.834	1.45	0.28	2.13	3.48
1250	207	3.240	0.68	18.39	1.581	1.45	0.28	2.13	3.48
1250	Open	3.240	0.68	18.39	1.005	1.45	0.28	2.32	3.48
1500	69	3.360	0.72	15.55	2.534	1.36	0.27	2.12	3.15
1500	103	3.360	0.72	15.55	2.204	1.36	0.27	2.12	3.15
1500	138	3.360	0.72	15.55	1.956	1.36	0.27	2.12	3.15
1500	207	3.360	0.72	15.55	1.665	1.36	0.27	2.12	3.46
1500	Open	3.360	0.72	15.55	1.007	1.36	0.27	2.31	3.46
1750	69	3.470	0.76	13.54	2.720	1.29	0.26	2.10	3.14
1750	103	3.470	0.76	13.54	2.345	1.29	0.26	2.10	3.14
1750	138	3.470	0.76	13.54	2.066	1.29	0.26	2.10	3.14
1750	207	3.470	0.76	13.54	1.740	1.29	0.26	2.10	3.45
1750	Open	3.470	0.76	13.54	1.008	1.29	0.26	2.29	3.45
2000	Open	3.573	0.80	12.06	1.010	1.22	0.26	2.28	3.43
2250	Open	3.668	0.83	11.02	1.012	1.17	0.25	2.27	3.42
2500	Open	3.759	0.86	10.12	1.013	1.13	0.24	2.25	3.41

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - 1 Circuit - Three Cables - Spaced

25°C Earth Ambient

Size	Res	OD	Wd	Rac	Qs	Ri	Rj	Re @ 90 Rho & loss factor 75%	Re @ 90 Rho & loss factor 100%
			65°C - Aluminum Conductor - Concentric Strand						
500	69	2.679	0.51	44.70	1.486	1.95	0.27	2.41	3.57
500	103	2.679	0.51	44.70	1.385	1.95	0.27	2.41	3.57
500	138	2.679	0.51	44.70	1.308	1.95	0.27	2.41	3.57
500	207	2.679	0.51	44.70	1.216	1.95	0.27	2.41	3.57
750	69	2.918	0.57	30.02	1.868	1.72	0.32	2.18	3.53
750	103	2.918	0.57	30.02	1.692	1.72	0.32	2.18	3.53
750	138	2.918	0.57	30.02	1.554	1.72	0.32	2.18	3.53
750	207	2.918	0.57	30.02	1.304	1.72	0.32	2.37	3.53
1000	69	3.107	0.63	22.74	2.109	1.56	0.30	2.15	3.19
1000	103	3.107	0.63	22.74	1.879	1.56	0.30	2.15	3.50
1000	138	3.107	0.63	22.74	1.701	1.56	0.30	2.15	3.50
1000	207	3.107	0.63	22.74	1.384	1.56	0.30	2.34	3.50
1000	Open	3.107	0.63	22.74	1.004	1.56	0.30	2.34	3.50
1250	69	3.240	0.68	18.39	2.330	1.45	0.28	2.13	3.17
1250	103	3.240	0.68	18.39	2.049	1.45	0.28	2.13	3.17
1250	138	3.240	0.68	18.39	1.834	1.45	0.28	2.13	3.48
1250	207	3.240	0.68	18.39	1.581	1.45	0.28	2.13	3.48
1250	Open	3.240	0.68	18.39	1.005	1.45	0.28	2.32	3.48
1500	69	3.360	0.72	15.55	2.534	1.36	0.27	2.12	3.15
1500	103	3.360	0.72	15.55	2.204	1.36	0.27	2.12	3.15
1500	138	3.360	0.72	15.55	1.956	1.36	0.27	2.12	3.15
1500	207	3.360	0.72	15.55	1.665	1.36	0.27	2.12	3.46
1500	Open	3.360	0.72	15.55	1.007	1.36	0.27	2.31	3.46
1750	69	3.470	0.76	13.54	2.720	1.29	0.26	2.10	3.14
1750	103	3.470	0.76	13.54	2.345	1.29	0.26	2.10	3.14
1750	138	3.470	0.76	13.54	2.066	1.29	0.26	2.10	3.14
1750	207	3.470	0.76	13.54	1.740	1.29	0.26	2.10	3.45
1750	Open	3.470	0.76	13.54	1.008	1.29	0.26	2.29	3.45
2000	Open	3.573	0.80	12.06	1.010	1.22	0.26	2.28	3.43
2250	Open	3.668	0.83	11.02	1.012	1.17	0.25	2.27	3.42
2500	Open	3.759	0.86	10.12	1.013	1.13	0.24	2.25	3.41

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - 1 Circuit - Three Cables - Spaced

25°C Earth Ambient

Size	Res	OD	Wd	Rac	Qs	Ri	Rj	Re @ 90 Rho & loss factor 75%	100%
			50°C - Aluminum Conductor - Concentric Strand						
500	69	2.679	0.51	44.70	1.486	1.95	0.27	2.41	3.57
500	103	2.679	0.51	44.70	1.385	1.95	0.27	2.41	3.57
500	138	2.679	0.51	44.70	1.308	1.95	0.27	2.41	3.57
500	207	2.679	0.51	44.70	1.216	1.95	0.27	2.41	3.57
750	69	2.918	0.57	30.02	1.868	1.72	0.32	2.18	3.53
750	103	2.918	0.57	30.02	1.692	1.72	0.32	2.18	3.53
750	138	2.918	0.57	30.02	1.554	1.72	0.32	2.18	3.53
750	207	2.918	0.57	30.02	1.304	1.72	0.32	2.37	3.53
1000	69	3.107	0.63	22.74	2.109	1.56	0.30	2.15	3.19
1000	103	3.107	0.63	22.74	1.879	1.56	0.30	2.15	3.50
1000	138	3.107	0.63	22.74	1.701	1.56	0.30	2.15	3.50
1000	207	3.107	0.63	22.74	1.384	1.56	0.30	2.34	3.50
1000	Open	3.107	0.63	22.74	1.004	1.56	0.30	2.34	3.50
1250	69	3.240	0.68	18.39	2.330	1.45	0.28	2.13	3.17
1250	103	3.240	0.68	18.39	2.049	1.45	0.28	2.13	3.17
1250	138	3.240	0.68	18.39	1.834	1.45	0.28	2.13	3.48
1250	207	3.240	0.68	18.39	1.581	1.45	0.28	2.13	3.48
1250	Open	3.240	0.68	18.39	1.005	1.45	0.28	2.32	3.48
1500	69	3.360	0.72	15.55	2.534	1.36	0.27	2.12	3.15
1500	103	3.360	0.72	15.55	2.204	1.36	0.27	2.12	3.15
1500	138	3.360	0.72	15.55	1.956	1.36	0.27	2.12	3.15
1500	207	3.360	0.72	15.55	1.665	1.36	0.27	2.12	3.46
1500	Open	3.360	0.72	15.55	1.007	1.36	0.27	2.31	3.46
1750	69	3.470	0.76	13.54	2.720	1.29	0.26	2.10	3.14
1750	103	3.470	0.76	13.54	2.345	1.29	0.26	2.10	3.14
1750	138	3.470	0.76	13.54	2.066	1.29	0.26	2.10	3.14
1750	207	3.470	0.76	13.54	1.740	1.29	0.26	2.10	3.45
1750	Open	3.470	0.76	13.54	1.008	1.29	0.26	2.29	3.45
2000	Open	3.573	0.80	12.06	1.010	1.22	0.26	2.28	3.43
2250	Open	3.668	0.83	11.02	1.012	1.17	0.25	2.27	3.42
2500	Open	3.759	0.86	10.12	1.013	1.13	0.24	2.25	3.41

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - 2 Circuits - Six Cables - Spaced

25°C Earth Ambient

90°C - Aluminum Conductor - Concentric Strand

		---- 60 Rho--- Interface			---- 90 Rho--- Interface			----120 Rho--- Interface			delta Td for .0150 pf & Rho		
Condr Size	Shield Res	Amps	Temp °C	Flux w/ft²	Amps	Temp °C	Flux w/ft²	Amps	Temp °C	Flux w/ft²	60	90	120
						75% LF							
500	69	499	63	28.2	439	69	22.1	396	73	18.1	2.1	2.9	3.6
500	103	511	62	27.4	451	68	21.5	407	72	17.7	2.1	2.9	3.6
500	138	522	61	26.5	461	68	21.0	417	72	17.3	2.1	2.9	3.6
500	207	537	60	25.4	476	67	20.1	432	71	16.7	2.1	2.9	3.6
750	69	586	66	28.5	511	71	21.9	458	75	17.8	2.4	3.2	4.1
750	103	606	65	27.6	530	71	21.3	476	74	17.4	2.4	3.2	4.1
750	138	624	64	26.7	548	70	20.7	493	74	16.9	2.4	3.2	4.1
750	207	649	62	25.3	572	69	19.8	516	73	16.2	2.4	3.2	4.1
1000	69	654	68	29.1	567	74	22.0	506	77	17.7	2.5	3.4	4.3
1000	103	682	67	28.2	593	73	21.4	530	76	17.2	2.5	3.4	4.3
1000	138	707	66	27.0	616	72	20.8	552	75	16.8	2.5	3.4	4.3
1000	207	742	65	25.7	649	70	19.8	584	74	16.1	2.5	3.4	4.3
1000	Open	849	60	21.0	754	66	16.7	684	70	13.9	2.5	3.4	4.3
1250	69	707	70	29.6	609	75	22.2	542	78	17.7	2.6	3.6	4.6
1250	103	742	69	28.5	641	74	21.6	572	77	17.2	2.6	3.6	4.6
1250	138	774	68	27.6	671	73	20.9	599	77	16.9	2.7	3.6	4.6
1250	207	818	66	26.1	712	72	19.9	638	76	16.2	2.7	3.6	4.6
1250	Open	960	61	21.0	850	67	16.6	768	71	13.7	2.7	3.6	4.6
1500	69	750	71	29.9	644	76	22.2	571	79	17.6	2.8	3.8	4.8
1500	103	792	70	28.9	681	75	21.6	606	78	17.3	2.8	3.8	4.9
1500	138	830	69	27.9	716	74	20.9	637	78	16.7	2.8	3.8	4.9
1500	207	883	68	26.3	765	73	19.9	683	77	16.0	2.8	3.8	4.9
1500	Open	1059	62	20.9	934	68	16.4	843	72	13.5	2.8	3.8	4.9
1750	69	786	72	29.9	672	77	22.1	595	80	17.5	2.9	4.0	5.1
1750	103	833	71	29.0	715	76	21.5	634	79	17.2	2.9	4.0	5.1
1750	138	877	70	28.0	754	75	20.9	670	78	16.7	2.9	4.0	5.1
1750	207	938	69	26.4	810	74	19.9	721	77	16.0	2.9	4.0	5.1
1750	Open	1148	62	20.8	1010	69	16.3	910	73	13.3	2.9	4.0	5.1
2000	Open	1229	63	20.6	1079	69	16.1	970	73	13.1	3.0	4.1	5.3
2250	Open	1297	64	20.5	1136	70	15.9	1020	74	13.0	3.1	4.3	5.5
2500	Open	1364	64	20.4	1193	70	15.9	1070	74	12.9	3.2	4.4	5.6

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - 2 Circuits - Six Cables - Spaced

25°C Earth Ambient

90°C - Aluminum Conductor - Concentric Strand

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 .0150 pf & Rho 60	90	120
						100% LF							
500	69	442	69	22.4	380	74	16.7	338	78	13.4	2.1	2.9	3.6
500	103	453	68	21.7	391	74	16.4	349	77	13.1	2.1	2.9	3.6
500	138	464	67	21.1	402	73	16.0	358	77	12.8	2.1	2.9	3.6
500	207	479	66	20.4	416	72	15.5	371	76	12.5	2.1	2.9	3.6
750	69	514	71	22.3	440	76	16.5	389	79	13.1	2.4	3.2	4.1
750	103	533	70	21.6	457	76	16.1	405	79	12.8	2.4	3.2	4.1
750	138	551	70	20.9	474	75	15.7	421	78	12.6	2.4	3.2	4.1
750	207	575	68	20.0	496	74	15.1	441	77	12.0	2.4	3.2	4.1
1000	69	570	73	22.3	485	78	16.4	427	81	12.8	2.5	3.4	4.3
1000	103	596	72	21.6	508	77	16.0	448	80	12.5	2.5	3.4	4.3
1000	138	620	72	21.0	529	77	15.5	468	80	12.3	2.5	3.4	4.3
1000	207	653	70	20.0	560	76	14.9	496	79	11.9	2.5	3.4	4.3
1000	Open	757	66	16.8	657	72	12.9	588	75	10.4	2.5	3.4	4.3
1250	69	613	75	22.4	518	79	16.3	455	82	12.7	2.6	3.6	4.6
1250	103	645	74	21.8	546	78	15.8	481	81	12.5	2.6	3.6	4.6
1250	138	675	73	21.1	573	78	15.4	505	81	12.1	2.7	3.6	4.6
1250	207	716	72	20.0	611	77	14.9	539	80	11.8	2.7	3.6	4.6
1250	Open	853	67	16.7	738	73	12.7	658	76	10.3	2.7	3.6	4.6
1500	69	648	76	22.4	545	80	16.1	477	82	12.6	2.8	3.8	4.8
1500	103	686	75	21.8	578	79	15.8	508	82	12.4	2.8	3.8	4.9
1500	138	720	74	21.1	609	79	15.3	535	81	12.1	2.8	3.8	4.9
1500	207	769	73	20.1	653	78	14.8	575	80	11.6	2.8	3.8	4.9
1500	Open	938	68	16.6	810	73	12.5	720	77	10.1	2.8	3.8	4.9
1750	69	676	77	22.3	567	81	16.0	496	83	12.4	2.9	4.0	5.1
1750	103	718	76	21.8	605	80	15.6	530	82	12.2	2.9	4.0	5.1
1750	138	759	75	21.1	639	80	15.2	561	82	11.9	2.9	4.0	5.1
1750	207	814	74	20.0	689	78	14.6	606	81	11.6	2.9	4.0	5.1
1750	Open	1014	68	16.4	872	74	12.3	775	77	9.9	2.9	4.0	5.1
2000	Open	1082	69	16.2	929	75	12.2	824	78	9.7	3.0	4.1	5.3
2250	Open	1140	70	16.0	976	75	12.0	864	78	9.6	3.1	4.3	5.5
2500	Open	1196	70	16.0	1023	76	11.9	904	79	9.5	3.2	4.4	5.6

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - 2 Circuits - Six Cables - Spaced

25°C Earth Ambient

80°C - Aluminum Conductor - Concentric Strand

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 .0150 pf & Rho 60	90	120
						75% LF							
500	69	459	58	24.2	403	63	18.8	363	66	15.4	2.1	2.9	3.6
500	103	470	57	23.5	414	62	18.4	373	66	15.1	2.1	2.9	3.6
500	138	481	56	22.8	424	62	17.8	383	65	14.7	2.1	2.9	3.6
500	207	495	55	21.7	439	61	17.3	397	64	14.3	2.1	2.9	3.6
750	69	537	60	24.5	467	65	18.7	418	68	15.2	2.4	3.2	4.1
750	103	555	59	23.7	484	64	18.2	434	67	14.8	2.4	3.2	4.1
750	138	572	58	22.9	501	63	17.7	450	67	14.4	2.4	3.2	4.1
750	207	597	57	21.7	524	62	17.0	472	66	13.9	2.4	3.2	4.1
1000	69	598	62	25.0	516	67	18.8	460	69	15.0	2.5	3.4	4.3
1000	103	623	61	24.1	539	66	18.3	481	69	14.8	2.5	3.4	4.3
1000	138	646	60	23.4	561	65	17.8	502	68	14.4	2.5	3.4	4.3
1000	207	680	59	22.0	593	64	17.0	532	67	13.8	2.5	3.4	4.3
1000	Open	790	54	17.8	701	60	14.1	635	64	11.8	2.5	3.4	4.3
1250	69	645	63	25.3	554	68	18.9	492	70	15.1	2.6	3.6	4.6
1250	103	675	63	24.5	582	67	18.4	517	70	14.7	2.6	3.6	4.6
1250	138	705	62	23.7	609	66	17.9	542	69	14.4	2.6	3.6	4.6
1250	207	748	60	22.4	649	65	17.1	580	68	13.8	2.7	3.6	4.6
1250	Open	893	55	17.7	789	61	14.0	712	64	11.6	2.7	3.6	4.6
1500	69	682	65	25.5	583	69	18.9	517	71	15.0	2.8	3.8	4.9
1500	103	718	64	24.8	616	68	18.4	547	71	14.7	2.8	3.8	4.8
1500	138	754	63	23.9	648	67	17.8	576	70	14.3	2.8	3.8	4.8
1500	207	805	62	22.6	695	66	17.1	619	69	13.6	2.8	3.8	4.9
1500	Open	984	56	17.6	867	62	13.9	781	65	11.4	2.8	3.8	4.9
1750	69	713	66	25.5	608	69	18.8	537	72	14.9	2.9	4.0	5.1
1750	103	755	65	24.9	645	69	18.4	570	71	14.5	2.9	4.0	5.1
1750	138	795	64	24.0	681	68	17.8	603	71	14.2	2.9	4.0	5.1
1750	207	853	63	22.7	734	67	17.1	652	70	13.6	2.9	4.0	5.1
1750	Open	1067	57	17.6	937	62	13.8	842	66	11.2	2.9	4.0	5.1
2000	Open	1141	57	17.5	1000	63	13.6	897	66	11.1	3.0	4.1	5.3
2250	Open	1203	58	17.4	1052	63	13.5	943	66	11.0	3.1	4.3	5.5
2500	Open	1264	58	17.3	1103	64	13.4	987	67	10.9	3.2	4.4	5.6

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - 2 Circuits - Six Cables - Spaced

25°C Earth Ambient

80°C - Aluminum Conductor - Concentric Strand

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 .0150 pf & Rho 60	90	120
					100% LF								
500	69	407	63	19.1	349	67	14.3	310	70	11.4	2.1	2.9	3.6
500	103	417	62	18.7	359	67	14.0	319	69	11.3	2.1	2.9	3.6
500	138	427	61	18.1	369	66	13.7	328	69	11.0	2.1	2.9	3.6
500	207	442	60	17.4	383	65	13.3	341	68	10.7	2.1	2.9	3.6
750	69	471	65	19.0	402	69	14.0	357	71	11.3	2.4	3.2	4.1
750	103	488	64	18.6	417	68	13.7	369	71	10.9	2.4	3.2	4.1
750	138	505	63	18.1	433	68	13.5	383	70	10.7	2.4	3.2	4.1
750	207	528	62	17.1	454	67	13.0	403	70	10.3	2.4	3.2	4.1
1000	69	520	66	19.1	441	70	13.9	388	72	10.9	2.5	3.4	4.3
1000	103	543	66	18.6	462	70	13.6	406	72	10.7	2.5	3.4	4.3
1000	138	566	65	18.1	482	69	13.3	425	72	10.6	2.5	3.4	4.3
1000	207	598	64	17.2	511	68	12.8	451	71	10.2	2.5	3.4	4.3
1000	Open	705	60	14.3	611	65	10.9	545	68	8.9	2.5	3.4	4.3
1250	69	557	68	19.1	470	71	13.8	412	73	10.8	2.6	3.6	4.6
1250	103	586	67	18.7	495	71	13.6	435	73	10.6	2.6	3.6	4.6
1250	138	613	66	18.2	520	70	13.2	457	72	10.4	2.6	3.6	4.6
1250	207	654	65	17.3	557	69	12.7	490	72	10.0	2.7	3.6	4.6
1250	Open	793	61	14.1	686	66	10.8	610	69	8.7	2.7	3.6	4.6
1500	69	588	69	19.2	493	72	13.8	431	74	10.7	2.8	3.8	4.9
1500	103	621	68	18.8	522	71	13.4	458	73	10.6	2.8	3.8	4.8
1500	138	653	67	18.1	550	71	13.2	483	73	10.3	2.8	3.8	4.8
1500	207	700	66	17.3	593	70	12.6	521	72	9.9	2.8	3.8	4.9
1500	Open	872	61	14.0	751	66	10.6	667	69	8.5	2.8	3.8	4.9
1750	69	612	69	19.0	512	73	13.6	447	74	10.6	2.9	4.0	5.1
1750	103	650	69	18.6	545	72	13.3	476	74	10.3	2.9	4.0	5.1
1750	138	686	68	18.2	577	72	13.0	505	74	10.2	2.9	4.0	5.1
1750	207	739	67	17.3	624	71	12.5	548	73	9.8	2.9	4.0	5.1
1750	Open	942	62	13.9	809	67	10.5	717	70	8.4	2.9	4.0	5.1
2000	Open	1005	63	13.8	861	67	10.4	762	70	8.2	3.0	4.1	5.3
2250	Open	1057	63	13.6	904	68	10.2	799	70	8.1	3.1	4.3	5.5
2500	Open	1109	63	13.5	946	68	10.1	835	71	8.0	3.2	4.4	5.6

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1448

69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - 2 Circuits - Six Cables - Spaced

25°C Earth Ambient

65°C - Aluminum Conductor - Concentric Strand

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 .0150 pf & Rho 60	90	120
						75% LF							
500	69	391	49	18.0	342	53	13.8	306	56	11.3	2.1	2.9	3.6
500	103	400	49	17.5	350	53	13.5	314	55	11.1	2.1	2.9	3.6
500	138	409	48	17.0	359	52	13.3	323	55	10.8	2.1	2.9	3.6
500	207	423	48	16.1	373	52	12.7	336	54	10.4	2.1	2.9	3.6
750	69	454	51	18.1	393	55	13.7	350	57	11.0	2.4	3.2	4.1
750	103	468	51	17.7	406	54	13.5	362	56	10.9	2.4	3.2	4.1
750	138	483	50	17.0	420	54	13.1	376	56	10.6	2.4	3.2	4.1
750	207	506	49	16.2	442	53	12.6	396	55	10.2	2.4	3.2	4.1
1000	69	503	53	18.3	432	56	13.8	383	58	10.9	2.5	3.4	4.3
1000	103	522	52	17.9	449	55	13.5	399	57	10.8	2.5	3.4	4.3
1000	138	542	51	17.3	468	55	13.2	416	57	10.6	2.5	3.4	4.3
1000	207	573	50	16.5	497	54	12.5	444	56	10.2	2.5	3.4	4.3
1000	Open	684	47	12.9	604	51	10.3	545	53	8.5	2.5	3.4	4.3
1250	69	540	54	18.6	461	57	13.8	407	59	11.0	2.6	3.6	4.6
1250	103	563	53	18.2	482	56	13.6	427	58	10.8	2.6	3.6	4.6
1250	138	588	52	17.6	505	56	13.2	447	58	10.5	2.6	3.6	4.6
1250	207	627	52	16.6	541	55	12.6	480	57	10.1	2.7	3.6	4.6
1250	Open	772	47	12.9	679	51	10.1	611	54	8.4	2.7	3.6	4.6
1500	69	569	54	18.8	484	57	13.8	426	59	10.8	2.8	3.8	4.9
1500	103	596	54	18.3	508	57	13.5	448	59	10.7	2.8	3.8	4.8
1500	138	626	53	17.7	535	56	13.2	473	58	10.5	2.8	3.8	4.9
1500	207	672	52	16.8	577	56	12.6	511	58	10.0	2.8	3.8	4.9
1500	Open	850	48	12.8	746	52	10.1	669	55	8.3	2.8	3.8	4.9
1750	69	593	55	18.7	503	58	13.8	441	60	10.8	2.9	4.0	5.1
1750	103	624	55	18.4	530	57	13.4	466	59	10.6	2.9	4.0	5.1
1750	138	658	54	17.8	560	57	13.1	493	59	10.3	2.9	4.0	5.1
1750	207	710	53	16.8	607	56	12.5	537	58	10.0	2.9	4.0	5.1
1750	Open	920	49	12.8	804	52	9.9	720	55	8.1	2.9	4.0	5.1
2000	Open	982	49	12.7	857	53	9.8	765	55	8.0	3.0	4.1	5.3
2250	Open	1035	49	12.6	901	53	9.8	803	56	7.9	3.1	4.3	5.5
2500	Open	1086	50	12.6	943	53	9.7	839	56	7.8	3.2	4.4	5.6

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - 2 Circuits - Six Cables - Spaced

25°C Earth Ambient

65°C - Aluminum Conductor - Concentric Strand

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 .0150 pf & Rho 60	90	120
						100% LF							
500	69	346	53	14.1	296	56	10.6	261	58	8.4	2.1	2.9	3.6
500	103	354	52	13.8	303	56	10.4	269	58	8.3	2.1	2.9	3.6
500	138	363	52	13.5	312	55	10.1	276	57	8.1	2.1	2.9	3.6
500	207	377	51	13.0	325	55	9.8	288	57	7.8	2.1	2.9	3.6
750	69	398	54	14.0	338	57	10.3	297	59	8.1	2.4	3.2	4.1
750	103	411	54	13.7	349	57	10.2	308	59	8.0	2.4	3.2	4.1
750	138	425	53	13.4	362	57	9.9	320	58	7.9	2.4	3.2	4.1
750	207	447	53	12.8	382	56	9.6	338	58	7.6	2.4	3.2	4.1
1000	69	437	56	14.0	368	58	10.2	322	60	8.0	2.5	3.4	4.3
1000	103	454	55	13.8	384	58	10.1	336	60	7.9	2.5	3.4	4.3
1000	138	473	55	13.4	401	58	9.8	352	59	7.7	2.5	3.4	4.3
1000	207	503	54	12.8	427	57	9.5	376	59	7.5	2.5	3.4	4.3
1000	Open	610	51	10.4	527	54	8.0	468	56	6.5	2.5	3.4	4.3
1250	69	467	57	14.1	391	59	10.1	341	60	7.9	2.6	3.6	4.6
1250	103	488	56	13.9	410	59	10.0	358	60	7.8	2.6	3.6	4.6
1250	138	511	56	13.4	430	58	9.8	376	60	7.7	2.6	3.6	4.6
1250	207	547	55	12.9	462	58	9.4	405	59	7.4	2.7	3.6	4.6
1250	Open	686	51	10.4	590	55	7.9	523	57	6.4	2.7	3.6	4.6
1500	69	489	57	14.1	409	60	10.0	356	61	7.8	2.8	3.8	4.9
1500	103	515	57	13.9	430	59	9.9	375	61	7.7	2.8	3.8	4.8
1500	138	542	56	13.5	454	59	9.7	396	60	7.6	2.8	3.8	4.9
1500	207	583	56	12.8	491	58	9.3	429	60	7.4	2.8	3.8	4.9
1500	Open	752	52	10.2	645	55	7.7	571	57	6.3	2.8	3.8	4.9
1750	69	508	58	14.0	423	60	9.9	367	61	7.7	2.9	4.0	5.1
1750	103	536	57	13.8	447	60	9.8	389	61	7.6	2.9	4.0	5.1
1750	138	567	57	13.4	473	59	9.6	412	61	7.5	2.9	4.0	5.1
1750	207	614	56	12.9	515	59	9.2	449	60	7.3	2.9	4.0	5.1
1750	Open	812	52	10.1	694	56	7.6	613	58	6.2	2.9	4.0	5.1
2000	Open	865	53	10.0	738	56	7.5	650	58	6.0	3.0	4.1	5.3
2250	Open	909	53	9.9	774	56	7.4	680	58	5.9	3.1	4.3	5.5
2500	Open	953	53	9.9	809	57	7.3	710	58	5.9	3.2	4.4	5.6

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1450

69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - 2 Circuits - Six Cables - Spaced

25°C Earth Ambient

50°C - Aluminum Conductor - Concentric Strand

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 .0150 pf & Rho 60	90	120
						75% LF							
500	69	306	41	11.3	265	43	8.7	236	45	7.0	2.1	2.9	3.6
500	103	312	41	11.1	271	43	8.6	241	44	7.0	2.1	2.9	3.6
500	138	319	40	10.8	278	43	8.4	247	44	6.8	2.1	2.9	3.6
500	207	331	40	10.3	289	42	8.0	258	44	6.6	2.1	2.9	3.6
750	69	353	42	11.4	302	44	8.5	267	45	6.8	2.4	3.2	4.1
750	103	361	42	11.3	311	44	8.5	274	45	6.8	2.4	3.2	4.1
750	138	373	41	10.9	321	44	8.2	284	45	6.7	2.4	3.2	4.1
750	207	392	41	10.3	339	43	8.0	301	45	6.4	2.4	3.2	4.1
1000	69	388	43	11.6	330	45	8.5	289	46	6.8	2.5	3.4	4.3
1000	103	400	43	11.3	341	45	8.5	299	46	6.6	2.5	3.4	4.3
1000	138	416	42	11.1	355	44	8.2	312	46	6.5	2.5	3.4	4.3
1000	207	441	42	10.4	379	44	7.9	334	45	6.4	2.5	3.4	4.3
1000	Open	543	39	8.1	476	42	6.4	425	43	5.3	2.5	3.4	4.3
1250	69	414	43	11.7	350	45	8.5	305	46	6.7	2.6	3.6	4.6
1250	103	429	43	11.4	363	45	8.5	317	46	6.6	2.6	3.6	4.6
1250	138	448	43	11.2	380	45	8.3	335	46	6.6	2.6	3.6	4.6
1250	207	480	42	10.6	409	44	7.9	359	46	6.2	2.7	3.6	4.6
1250	Open	612	40	8.0	533	42	6.2	475	44	5.2	2.7	3.6	4.6
1500	69	434	44	11.7	368	46	8.6	318	47	6.6	2.8	3.8	4.9
1500	103	452	44	11.5	381	46	8.4	332	47	6.6	2.8	3.8	4.9
1500	138	474	43	11.3	401	45	8.2	349	46	6.5	2.8	3.8	4.9
1500	207	511	43	10.7	433	45	8.0	379	46	6.3	2.8	3.8	4.9
1500	Open	672	40	8.0	584	42	6.3	518	44	5.1	2.8	3.8	4.9
1750	69	451	44	11.7	377	46	8.4	327	47	6.5	2.9	4.0	5.1
1750	103	471	44	11.6	395	46	8.4	343	47	6.5	2.9	4.0	5.1
1750	138	496	44	11.2	417	46	8.1	363	47	6.4	2.9	4.0	5.1
1750	207	538	43	10.7	454	45	7.8	396	46	6.2	2.9	4.0	5.1
1750	Open	726	40	7.9	628	43	6.2	556	44	5.1	2.9	4.0	5.1
2000	Open	774	40	7.9	668	43	6.1	589	45	4.9	3.0	4.1	5.3
2250	Open	814	41	7.8	700	43	6.0	616	45	4.9	3.1	4.3	5.5
2500	Open	853	41	7.8	732	43	6.0	643	45	4.8	3.2	4.4	5.6

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Not for Resale

69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - 2 Circuits - Six Cables - Spaced

25°C Earth Ambient

50°C - Aluminum Conductor - Concentric Strand

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 .0150 pf & Rho 60	90	120
						100% LF							
500	69	270	43	9.0	229	45	6.7	201	46	5.3	2.1	2.9	3.6
500	103	275	43	8.8	234	45	6.6	205	46	5.3	2.1	2.9	3.6
500	138	282	42	8.7	241	45	6.4	211	46	5.1	2.1	2.9	3.6
500	207	294	42	8.3	251	44	6.3	221	45	5.0	2.1	2.9	3.6
750	69	308	44	8.9	259	46	6.4	226	47	5.1	2.4	3.2	4.1
750	103	317	44	8.8	267	45	6.4	232	47	5.1	2.4	3.2	4.1
750	138	328	43	8.5	276	45	6.3	241	46	5.0	2.4	3.2	4.1
750	207	345	43	8.2	293	45	6.2	256	46	4.8	2.4	3.2	4.1
1000	69	336	45	8.9	280	46	6.4	243	47	5.0	2.5	3.4	4.3
1000	103	347	44	8.7	290	46	6.4	252	47	4.9	2.5	3.4	4.3
1000	138	362	44	8.6	303	46	6.3	263	47	4.9	2.5	3.4	4.3
1000	207	386	44	8.2	324	46	6.0	282	47	4.8	2.5	3.4	4.3
1000	Open	484	41	6.6	415	44	5.0	366	45	4.1	2.5	3.4	4.3
1250	69	357	45	8.8	296	47	6.4	255	48	5.0	2.6	3.6	4.6
1250	103	371	45	8.7	308	47	6.2	266	47	5.0	2.6	3.6	4.6
1250	138	389	45	8.6	323	46	6.2	279	47	4.8	2.6	3.6	4.6
1250	207	417	44	8.3	349	46	6.0	302	47	4.7	2.7	3.6	4.6
1250	Open	543	42	6.5	463	44	5.0	407	45	4.0	2.7	3.6	4.6
1500	69	373	46	8.9	308	47	6.3	265	48	4.9	2.8	3.8	4.9
1500	103	389	45	8.8	322	47	6.3	277	48	4.9	2.8	3.8	4.9
1500	138	409	45	8.5	339	47	6.1	292	48	4.8	2.8	3.8	4.9
1500	207	443	45	8.2	368	46	5.9	318	47	4.7	2.8	3.8	4.9
1500	Open	595	42	6.5	506	44	4.9	442	46	4.0	2.8	3.8	4.9
1750	69	386	46	8.8	317	47	6.2	272	48	4.7	2.9	4.0	5.1
1750	103	404	46	8.7	333	47	6.2	286	48	4.7	2.9	4.0	5.1
1750	138	426	45	8.5	352	47	6.1	302	48	4.7	2.9	4.0	5.1
1750	207	464	45	8.1	384	47	5.8	331	47	4.5	2.9	4.0	5.1
1750	Open	641	42	6.4	543	45	4.8	473	46	3.9	2.9	4.0	5.1
2000	Open	682	43	6.3	575	45	4.7	500	46	3.8	3.0	4.1	5.3
2250	Open	715	43	6.2	602	45	4.7	522	46	3.7	3.1	4.3	5.5
2500	Open	748	43	6.2	627	45	4.7	543	46	3.7	3.2	4.4	5.6

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1452

69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - 2 Circuits - Six Cables - Spaced

25°C Earth Ambient

Total Watts/ft for 90°C - Aluminum Conductor - Concentric Strand

		60 Rho		90 Rho		120 Rho	
		75 LF	100 LF	75 LF	100 LF	75 LF	100 LF
Condr Size	Shield Res						
500	69	107.4	84.9	83.8	63.6	68.8	50.9
500	103	105.4	83.5	82.8	63.0	68.0	50.8
500	138	103.5	82.4	81.4	62.6	67.1	50.3
500	207	101.0	81.0	80.0	61.8	66.4	49.8
750	69	115.2	89.4	88.4	66.5	71.7	52.7
750	103	112.9	88.1	87.2	65.7	71.0	52.3
750	138	110.8	87.2	86.3	65.4	70.5	52.3
750	207	107.9	85.5	84.6	64.5	69.5	51.7
1000	69	122.3	93.8	92.9	69.0	74.8	54.3
1000	103	120.1	92.6	91.8	68.3	74.1	54.0
1000	138	117.9	91.6	90.4	67.7	73.4	53.8
1000	207	114.7	89.7	88.6	67.0	72.5	53.3
1000	Open	102.4	82.2	81.6	62.8	67.8	51.1
1250	69	127.7	97.0	95.8	70.4	76.7	55.3
1250	103	125.5	95.8	94.7	69.8	76.2	55.1
1250	138	123.3	94.8	93.7	69.4	75.5	54.8
1250	207	119.9	92.8	91.8	68.7	74.5	54.3
1250	Open	106.2	84.7	84.1	64.4	69.4	52.0
1500	69	132.0	99.6	98.5	71.7	78.3	56.0
1500	103	130.0	98.6	97.3	71.3	77.9	56.0
1500	138	127.9	97.3	96.3	70.9	77.1	55.7
1500	207	124.5	95.5	94.5	70.0	76.2	55.3
1500	Open	109.6	86.9	86.2	65.9	71.0	53.0
1750	69	135.6	101.5	100.3	72.7	79.6	56.7
1750	103	133.4	100.3	99.5	72.5	79.2	56.7
1750	138	131.6	99.7	98.4	72.0	78.7	56.5
1750	207	128.0	97.6	96.6	71.2	77.5	56.1
1750	Open	112.4	88.7	88.0	66.8	72.3	53.7
2000	Open	115.0	90.2	89.7	67.7	73.4	54.3
2250	Open	117.4	91.8	91.2	68.6	74.5	54.9
2500	Open	119.5	93.0	92.6	69.5	75.5	55.4

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - 2 Circuits - Six Cables - Spaced

25°C Earth Ambient

Total Watts/ft for 80°C - Aluminum Conductor - Concentric Strand

		60 Rho		90 Rho		120 Rho	
		75 LF	100 LF	75 LF	100 LF	75 LF	100 LF
Condr Size	Shield Res						
500	69	91.4	72.5	71.2	54.1	58.3	43.4
500	103	89.8	71.4	70.4	53.7	57.7	43.0
500	138	88.4	70.3	69.4	53.3	57.2	42.7
500	207	85.9	69.1	68.2	52.7	56.4	42.4
750	69	98.1	76.2	75.0	56.5	60.8	45.3
750	103	96.4	75.3	74.1	55.9	60.3	44.5
750	138	94.6	74.5	73.4	55.7	59.9	44.3
750	207	92.1	72.8	71.8	54.7	58.9	43.9
1000	69	104.3	79.8	78.6	58.5	63.3	46.1
1000	103	102.6	78.9	77.8	58.1	62.7	45.8
1000	138	100.6	78.1	76.8	57.7	62.3	45.7
1000	207	97.8	76.5	75.3	56.9	61.3	45.1
1000	Open	86.6	69.7	69.0	53.3	57.3	43.2
1250	69	108.9	82.2	81.4	59.7	65.1	46.8
1250	103	106.9	81.6	80.5	59.4	64.4	46.8
1250	138	105.3	80.6	79.6	59.1	63.9	46.6
1250	207	102.4	79.2	78.1	58.6	63.2	46.3
1250	Open	89.9	71.7	71.1	54.7	58.6	44.1
1500	69	112.3	84.6	83.2	60.8	66.4	47.5
1500	103	110.6	83.8	82.5	60.5	66.0	47.5
1500	138	109.1	82.9	81.7	60.1	65.5	47.3
1500	207	106.2	81.4	80.3	59.6	64.6	47.0
1500	Open	92.6	73.6	72.9	55.7	59.9	44.9
1750	69	115.2	86.1	85.0	61.6	67.3	48.0
1750	103	113.8	85.5	84.3	61.5	66.8	48.0
1750	138	112.2	84.7	83.5	61.3	66.5	48.0
1750	207	109.2	83.1	82.0	60.5	65.7	47.7
1750	Open	95.2	75.2	74.5	56.7	61.0	45.5
2000	Open	97.3	76.6	75.9	57.5	62.0	46.1
2250	Open	99.2	77.7	77.0	58.2	62.9	46.5
2500	Open	101.0	78.9	78.1	58.8	63.6	47.0

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1454

69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - 2 Circuits - Six Cables - Spaced

25°C Earth Ambient

Total Watts/ft for 65°C - Aluminum Conductor - Concentric Strand

		60 Rho		90 Rho		120 Rho	
		75 LF	100 LF	75 LF	100 LF	75 LF	100 LF
Condr Size	Shield Res						
500	69	67.1	53.2	52.1	39.8	42.3	31.6
500	103	66.3	52.6	51.5	39.3	42.0	31.6
500	138	65.1	51.9	50.8	39.1	41.7	31.3
500	207	63.4	51.0	50.0	38.7	41.1	31.0
750	69	72.0	56.1	54.8	41.4	44.2	32.8
750	103	70.9	55.5	54.2	41.0	43.8	32.7
750	138	69.7	54.7	53.5	40.7	43.6	32.5
750	207	67.9	53.7	52.6	40.2	42.9	32.2
1000	69	76.5	58.7	57.4	42.7	45.9	33.6
1000	103	75.4	57.9	56.8	42.5	45.6	33.4
1000	138	74.1	57.3	56.2	42.3	45.2	33.4
1000	207	72.0	56.4	55.1	41.7	44.8	33.2
1000	Open	63.0	50.9	49.9	38.9	41.4	31.5
1250	69	79.8	60.7	59.3	43.8	47.1	34.3
1250	103	78.6	60.0	58.7	43.6	46.9	34.2
1250	138	77.3	59.4	58.1	43.2	46.4	34.0
1250	207	75.4	58.3	57.1	42.8	45.8	33.8
1250	Open	65.3	52.4	51.5	39.8	42.4	32.2
1500	69	82.2	61.8	60.7	44.6	48.0	34.8
1500	103	81.0	61.6	60.0	44.2	47.7	34.7
1500	138	80.0	61.1	59.6	44.1	47.5	34.6
1500	207	78.0	59.8	58.7	43.7	46.9	34.4
1500	Open	67.4	53.7	52.9	40.6	43.4	32.8
1750	69	84.3	63.0	61.9	45.1	48.6	35.1
1750	103	83.2	62.6	61.3	44.9	48.4	35.1
1750	138	82.3	62.3	60.8	44.7	48.2	35.0
1750	207	80.3	61.2	59.9	44.4	47.9	34.9
1750	Open	69.1	54.9	53.9	41.3	44.1	33.2
2000	Open	70.6	55.9	54.9	42.0	44.7	33.6
2250	Open	72.0	56.7	55.8	42.5	45.3	33.9
2500	Open	73.3	57.6	56.5	43.0	45.8	34.3

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - 2 Circuits - Six Cables - Spaced

25°C Earth Ambient

Total Watts/ft for 50°C - Aluminum Conductor - Concentric Strand

		60 Rho		90 Rho		120 Rho	
		75 LF	100 LF	75 LF	100 LF	75 LF	100 LF
Condr Size	Shield Res						
500	69	42.4	33.7	32.5	25.1	26.4	20.0
500	103	42.0	33.3	32.4	24.9	26.3	19.8
500	138	41.2	32.9	32.0	24.8	25.9	19.7
500	207	40.2	32.3	31.3	24.4	25.6	19.6
750	69	45.4	35.4	34.2	26.0	27.5	20.6
750	103	44.6	35.2	34.0	26.0	27.2	20.4
750	138	44.0	34.8	33.5	25.7	27.0	20.4
750	207	42.9	34.0	32.9	25.5	26.7	20.3
1000	69	48.0	37.0	35.8	26.8	28.3	21.1
1000	103	47.4	36.6	35.5	26.7	28.2	21.1
1000	138	46.9	36.4	35.1	26.6	28.0	21.0
1000	207	45.5	35.8	34.6	26.3	27.7	20.9
1000	Open	39.3	32.0	31.1	24.5	25.5	19.9
1250	69	49.9	38.2	36.8	27.5	28.9	21.5
1250	103	49.3	37.9	36.5	27.4	28.8	21.5
1250	138	48.7	37.7	36.2	27.3	29.0	21.4
1250	207	47.6	36.9	35.7	27.1	28.4	21.3
1250	Open	40.8	33.0	31.9	25.1	26.2	20.3
1500	69	51.2	39.0	38.0	27.9	29.5	21.8
1500	103	50.7	38.7	37.3	27.9	29.4	21.7
1500	138	50.1	38.4	37.1	27.7	29.1	21.7
1500	207	49.0	37.9	36.4	27.5	28.9	21.6
1500	Open	41.9	33.8	32.7	25.6	26.7	20.6
1750	69	52.5	39.7	38.1	28.3	29.8	22.0
1750	103	52.0	39.4	37.9	28.3	29.7	22.0
1750	138	51.5	39.2	37.7	28.2	29.7	21.9
1750	207	50.5	38.7	37.3	28.0	29.4	21.9
1750	Open	43.0	34.6	33.4	26.1	27.1	20.9
2000	Open	44.0	35.2	34.0	26.4	27.5	21.1
2250	Open	44.8	35.7	34.5	26.8	27.8	21.4
2500	Open	45.6	36.2	34.9	27.0	28.1	21.6

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - 2 Circuits - Six Cables - Spaced

25°C Earth Ambient

Size	Res	OD	Wd	Rac	Qs	Ri	Rj	Re @ 90 Rho & loss factor 75%	Re @ 90 Rho & loss factor 100%
			90°C - Aluminum Conductor - Concentric Strand						
500	69	2.679	0.51	44.70	1.628	1.95	0.27	2.96	4.45
500	103	2.679	0.51	44.70	1.512	1.95	0.27	2.96	4.45
500	138	2.679	0.51	44.70	1.413	1.95	0.27	2.96	4.45
500	207	2.679	0.51	44.70	1.292	1.95	0.27	2.96	4.45
750	69	2.918	0.57	30.02	1.903	1.72	0.32	2.92	4.41
750	103	2.918	0.57	30.02	1.730	1.72	0.32	2.92	4.41
750	138	2.918	0.57	30.02	1.587	1.72	0.32	2.92	4.41
750	207	2.918	0.57	30.02	1.413	1.72	0.32	2.92	4.41
1000	69	3.107	0.63	22.74	2.154	1.56	0.30	2.89	4.38
1000	103	3.107	0.63	22.74	1.928	1.56	0.30	2.89	4.38
1000	138	3.107	0.63	22.74	1.745	1.56	0.30	2.89	4.38
1000	207	3.107	0.63	22.74	1.523	1.56	0.30	2.89	4.38
1000	Open	3.107	0.63	22.74	1.003	1.56	0.30	2.89	4.38
1250	69	3.240	0.68	18.39	2.394	1.45	0.28	2.86	4.36
1250	103	3.240	0.68	18.39	2.109	1.45	0.28	2.87	4.36
1250	138	3.240	0.68	18.39	1.888	1.45	0.28	2.87	4.36
1250	207	3.240	0.68	18.39	1.622	1.45	0.28	2.87	4.36
1250	Open	3.240	0.68	18.39	1.004	1.45	0.28	2.87	4.36
1500	69	3.360	0.72	15.55	2.610	1.36	0.27	2.85	4.35
1500	103	3.360	0.72	15.55	2.282	1.36	0.27	2.85	4.35
1500	138	3.360	0.72	15.55	2.019	1.36	0.27	2.85	4.35
1500	207	3.360	0.72	15.55	1.713	1.36	0.27	2.85	4.35
1500	Open	3.360	0.72	15.55	1.005	1.36	0.27	2.85	4.35
1750	69	3.470	0.76	13.54	2.808	1.29	0.26	2.83	4.33
1750	103	3.470	0.76	13.54	2.434	1.29	0.26	2.83	4.33
1750	138	3.470	0.76	13.54	2.138	1.29	0.26	2.84	4.33
1750	207	3.470	0.76	13.54	1.795	1.29	0.26	2.84	4.33
1750	Open	3.470	0.76	13.54	1.006	1.29	0.26	2.84	4.33
2000	Open	3.573	0.80	12.06	1.008	1.22	0.26	2.83	4.32
2250	Open	3.668	0.83	11.02	1.009	1.17	0.25	2.81	4.30
2500	Open	3.759	0.86	10.12	1.010	1.13	0.24	2.80	4.29

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - 2 Circuits - Six Cables - Spaced

25°C Earth Ambient

Size	Res	OD	Wd	Rac	Qs	Ri	Rj	Re @ 90 Rho & loss factor 75%	Re @ 90 Rho & loss factor 100%
80°C - Aluminum Conductor - Concentric Strand									
500	69	2.679	0.51	44.70	1.628	1.95	0.27	2.96	4.45
500	103	2.679	0.51	44.70	1.512	1.95	0.27	2.96	4.45
500	138	2.679	0.51	44.70	1.413	1.95	0.27	2.96	4.45
500	207	2.679	0.51	44.70	1.292	1.95	0.27	2.96	4.45
750	69	2.918	0.57	30.02	1.903	1.72	0.32	2.92	4.41
750	103	2.918	0.57	30.02	1.730	1.72	0.32	2.92	4.41
750	138	2.918	0.57	30.02	1.587	1.72	0.32	2.92	4.41
750	207	2.918	0.57	30.02	1.413	1.72	0.32	2.92	4.41
1000	69	3.107	0.63	22.74	2.154	1.56	0.30	2.89	4.38
1000	103	3.107	0.63	22.74	1.928	1.56	0.30	2.89	4.38
1000	138	3.107	0.63	22.74	1.745	1.56	0.30	2.89	4.38
1000	207	3.107	0.63	22.74	1.523	1.56	0.30	2.89	4.38
1000	Open	3.107	0.63	22.74	1.003	1.56	0.30	2.89	4.38
1250	69	3.240	0.68	18.39	2.394	1.45	0.28	2.86	4.36
1250	103	3.240	0.68	18.39	2.109	1.45	0.28	2.87	4.36
1250	138	3.240	0.68	18.39	1.888	1.45	0.28	2.87	4.36
1250	207	3.240	0.68	18.39	1.622	1.45	0.28	2.87	4.36
1250	Open	3.240	0.68	18.39	1.004	1.45	0.28	2.87	4.36
1500	69	3.360	0.72	15.55	2.610	1.36	0.27	2.85	4.35
1500	103	3.360	0.72	15.55	2.282	1.36	0.27	2.85	4.35
1500	138	3.360	0.72	15.55	2.019	1.36	0.27	2.85	4.35
1500	207	3.360	0.72	15.55	1.713	1.36	0.27	2.85	4.35
1500	Open	3.360	0.72	15.55	1.005	1.36	0.27	2.85	4.35
1750	69	3.470	0.76	13.54	2.808	1.29	0.26	2.83	4.33
1750	103	3.470	0.76	13.54	2.434	1.29	0.26	2.83	4.33
1750	138	3.470	0.76	13.54	2.138	1.29	0.26	2.84	4.33
1750	207	3.470	0.76	13.54	1.795	1.29	0.26	2.84	4.33
1750	Open	3.470	0.76	13.54	1.006	1.29	0.26	2.84	4.33
2000	Open	3.573	0.80	12.06	1.008	1.22	0.26	2.83	4.32
2250	Open	3.668	0.83	11.02	1.009	1.17	0.25	2.81	4.30
2500	Open	3.759	0.86	10.12	1.010	1.13	0.24	2.80	4.29

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1458

69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - 2 Circuits - Six Cables - Spaced

25°C Earth Ambient

Size	Res	OD	Wd	Rac	Qs	Ri	Rj	Re @ 90 Rho & loss factor 75%	100%
			65°C - Aluminum Conductor - Concentric Strand						
500	69	2.679	0.51	44.70	1.628	1.95	0.27	2.96	4.45
500	103	2.679	0.51	44.70	1.512	1.95	0.27	2.96	4.45
500	138	2.679	0.51	44.70	1.413	1.95	0.27	2.96	4.45
500	207	2.679	0.51	44.70	1.292	1.95	0.27	2.96	4.45
750	69	2.918	0.57	30.02	1.903	1.72	0.32	2.92	4.41
750	103	2.918	0.57	30.02	1.730	1.72	0.32	2.92	4.41
750	138	2.918	0.57	30.02	1.587	1.72	0.32	2.92	4.41
750	207	2.918	0.57	30.02	1.413	1.72	0.32	2.92	4.41
1000	69	3.107	0.63	22.74	2.154	1.56	0.30	2.89	4.38
1000	103	3.107	0.63	22.74	1.928	1.56	0.30	2.89	4.38
1000	138	3.107	0.63	22.74	1.745	1.56	0.30	2.89	4.38
1000	207	3.107	0.63	22.74	1.523	1.56	0.30	2.89	4.38
1000	Open	3.107	0.63	22.74	1.003	1.56	0.30	2.89	4.38
1250	69	3.240	0.68	18.39	2.394	1.45	0.28	2.86	4.36
1250	103	3.240	0.68	18.39	2.109	1.45	0.28	2.87	4.36
1250	138	3.240	0.68	18.39	1.888	1.45	0.28	2.87	4.36
1250	207	3.240	0.68	18.39	1.622	1.45	0.28	2.87	4.36
1250	Open	3.240	0.68	18.39	1.004	1.45	0.28	2.87	4.36
1500	69	3.360	0.72	15.55	2.610	1.36	0.27	2.85	4.35
1500	103	3.360	0.72	15.55	2.282	1.36	0.27	2.85	4.35
1500	138	3.360	0.72	15.55	2.019	1.36	0.27	2.85	4.35
1500	207	3.360	0.72	15.55	1.713	1.36	0.27	2.85	4.35
1500	Open	3.360	0.72	15.55	1.005	1.36	0.27	2.85	4.35
1750	69	3.470	0.76	13.54	2.808	1.29	0.26	2.83	4.33
1750	103	3.470	0.76	13.54	2.434	1.29	0.26	2.83	4.33
1750	138	3.470	0.76	13.54	2.138	1.29	0.26	2.84	4.33
1750	207	3.470	0.76	13.54	1.795	1.29	0.26	2.84	4.33
1750	Open	3.470	0.76	13.54	1.006	1.29	0.26	2.84	4.33
2000	Open	3.573	0.80	12.06	1.008	1.22	0.26	2.83	4.32
2250	Open	3.668	0.83	11.02	1.009	1.17	0.25	2.81	4.30
2500	Open	3.759	0.86	10.12	1.010	1.13	0.24	2.80	4.29

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69 kV Shielded Single Conductor Filled X L P E or E P R Power Cable

Direct Buried - 2 Circuits - Six Cables - Spaced

25°C Earth Ambient

Size	Res	OD	Wd	Rac	Qs	Ri	Rj	Re @ 90 Rho & loss factor 75%	100%
			50°C - Aluminum Conductor - Concentric Strand						
500	69	2.679	0.51	44.70	1.628	1.95	0.27	2.96	4.45
500	103	2.679	0.51	44.70	1.512	1.95	0.27	2.96	4.45
500	138	2.679	0.51	44.70	1.413	1.95	0.27	2.96	4.45
500	207	2.679	0.51	44.70	1.292	1.95	0.27	2.96	4.45
750	69	2.918	0.57	30.02	1.903	1.72	0.32	2.92	4.41
750	103	2.918	0.57	30.02	1.730	1.72	0.32	2.92	4.41
750	138	2.918	0.57	30.02	1.587	1.72	0.32	2.92	4.41
750	207	2.918	0.57	30.02	1.413	1.72	0.32	2.92	4.41
1000	69	3.107	0.63	22.74	2.154	1.56	0.30	2.89	4.38
1000	103	3.107	0.63	22.74	1.928	1.56	0.30	2.89	4.38
1000	138	3.107	0.63	22.74	1.745	1.56	0.30	2.89	4.38
1000	207	3.107	0.63	22.74	1.523	1.56	0.30	2.89	4.38
1000	Open	3.107	0.63	22.74	1.003	1.56	0.30	2.89	4.38
1250	69	3.240	0.68	18.39	2.394	1.45	0.28	2.86	4.36
1250	103	3.240	0.68	18.39	2.109	1.45	0.28	2.87	4.36
1250	138	3.240	0.68	18.39	1.888	1.45	0.28	2.87	4.36
1250	207	3.240	0.68	18.39	1.622	1.45	0.28	2.87	4.36
1250	Open	3.240	0.68	18.39	1.004	1.45	0.28	2.87	4.36
1500	69	3.360	0.72	15.55	2.610	1.36	0.27	2.85	4.35
1500	103	3.360	0.72	15.55	2.282	1.36	0.27	2.85	4.35
1500	138	3.360	0.72	15.55	2.019	1.36	0.27	2.85	4.35
1500	207	3.360	0.72	15.55	1.713	1.36	0.27	2.85	4.35
1500	Open	3.360	0.72	15.55	1.005	1.36	0.27	2.85	4.35
1750	69	3.470	0.76	13.54	2.808	1.29	0.26	2.83	4.33
1750	103	3.470	0.76	13.54	2.434	1.29	0.26	2.83	4.33
1750	138	3.470	0.76	13.54	2.138	1.29	0.26	2.84	4.33
1750	207	3.470	0.76	13.54	1.795	1.29	0.26	2.84	4.33
1750	Open	3.470	0.76	13.54	1.006	1.29	0.26	2.84	4.33
2000	Open	3.573	0.80	12.06	1.008	1.22	0.26	2.83	4.32
2250	Open	3.668	0.83	11.02	1.009	1.17	0.25	2.81	4.30
2500	Open	3.759	0.86	10.12	1.010	1.13	0.24	2.80	4.29

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69 kV Shielded Single Conductor Filled X L P E or E P R 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 .0150 pf No Sun 0 Ft/s	delta Td for .0150 pf No Sun 2 Ft/s
		90°C - Aluminum Conductor - Concentric Strand					
500	69	371	390	313	334	2.9	2.6
500	103	376	396	317	337	2.9	2.6
500	138	380	400	319	339	3.0	2.6
500	207	383	403	321	341	3.0	2.6
750	69	449	475	379	410	3.2	2.8
750	103	460	485	388	417	3.2	2.8
750	138	466	492	393	421	3.2	2.9
750	207	472	498	398	425	3.2	2.9
1000	69	512	543	432	475	3.3	3.0
1000	103	528	559	445	485	3.3	3.0
1000	138	537	568	453	490	3.3	3.0
1000	207	546	578	461	496	3.3	3.0
1250	69	563	597	475	523	3.5	3.1
1250	103	583	618	491	541	3.5	3.1
1250	138	594	630	501	549	3.5	3.1
1250	207	607	643	512	557	3.5	3.1
1500	69	637	668	537	581	3.3	3.0
1500	103	662	694	558	602	3.3	3.0
1500	138	677	709	571	612	3.3	3.0
1500	207	693	726	584	622	3.3	3.0
1750	69	674	708	569	615	3.4	3.1
1750	103	703	738	593	641	3.4	3.1
1750	138	721	756	608	657	3.4	3.1
1750	207	740	776	624	671	3.4	3.1
2000	69	705	741	595	644	3.5	3.2
2000	103	738	775	623	673	3.5	3.2
2000	138	758	796	639	692	3.5	3.2
2000	207	780	819	658	711	3.5	3.2
2250	69	730	768	616	666	3.5	3.2
2250	103	766	805	646	699	3.5	3.2
2250	138	788	828	664	719	3.6	3.2
2250	207	812	853	685	741	3.6	3.2
2500	69	752	792	635	687	3.6	3.3
2500	103	791	833	667	723	3.6	3.3
2500	138	815	858	688	745	3.6	3.3
2500	207	842	885	710	769	3.6	3.3

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69 kV Shielded Single Conductor Filled X L P E or E P R 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	23.7	26.1	16.1	18.1
500	103	23.4	25.8	16.0	17.9
500	138	23.3	25.6	16.0	17.8
500	207	23.1	25.4	15.9	17.7
750	69	25.6	28.5	18.7	19.4
750	103	25.3	27.9	18.5	19.2
750	138	25.1	27.8	18.3	19.1
750	207	24.8	27.5	18.1	19.0
1000	69	27.4	30.6	20.0	20.7
1000	103	27.1	30.1	19.7	20.4
1000	138	26.8	29.8	19.6	20.2
1000	207	26.5	29.5	19.4	20.0
1250	69	28.9	32.2	21.1	25.2
1250	103	28.5	31.8	20.8	21.2
1250	138	28.2	31.4	20.6	21.1
1250	207	27.9	31.1	20.4	20.8
1500	69	33.0	36.1	24.0	27.8
1500	103	32.4	35.4	23.6	22.9
1500	138	32.1	35.0	23.4	22.6
1500	207	31.7	34.6	23.1	22.3
1750	69	34.2	37.6	25.0	28.9
1750	103	33.7	36.9	24.6	28.4
1750	138	33.4	36.5	24.4	28.1
1750	207	33.0	36.0	24.1	23.1
2000	69	35.4	38.9	25.8	29.9
2000	103	34.8	38.2	25.5	29.3
2000	138	34.5	37.8	25.2	29.1
2000	207	34.1	37.4	24.9	28.7
2250	69	36.4	40.1	26.6	30.7
2250	103	35.9	39.4	26.2	30.3
2250	138	35.5	39.0	25.9	30.0
2250	207	35.1	38.5	25.7	29.7
2500	69	37.3	41.1	27.3	31.5
2500	103	36.8	40.6	26.9	31.1
2500	138	36.5	40.2	26.7	30.9
2500	207	36.1	39.7	26.4	30.6

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69 kV Shielded Single Conductor Filled X L P E or E P R 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 - Aluminum Conductor - Concentric Strand								
500	69	2.679	7.98	0.51	44.88	1.166	1.199	1.95	.27	2.57	.00	1.98	1.40
500	103	2.679	7.98	0.51	44.88	1.114	1.147	1.95	.27	2.58	.00	1.99	1.40
500	138	2.679	7.98	0.51	44.88	1.086	1.119	1.95	.27	2.58	.00	1.99	1.40
500	207	2.679	7.98	0.51	44.88	1.058	1.091	1.95	.27	2.58	.00	1.99	1.40
750	69	2.918	7.98	0.57	30.27	1.250	1.305	1.72	.32	2.40	.00	1.96	1.40
750	103	2.918	7.98	0.57	30.27	1.172	1.228	1.72	.32	2.41	.00	1.96	1.40
750	138	2.918	7.98	0.57	30.27	1.130	1.186	1.72	.32	2.41	.00	1.97	1.40
750	207	2.918	7.98	0.57	30.27	1.087	1.143	1.72	.32	2.42	.00	1.97	1.40
1000	69	3.107	7.98	0.63	23.06	1.326	1.406	1.56	.30	2.28	.00	1.94	1.40
1000	103	3.107	7.98	0.63	23.06	1.225	1.305	1.56	.30	2.29	.00	1.94	1.40
1000	138	3.107	7.98	0.63	23.06	1.170	1.250	1.56	.30	2.29	.00	1.95	1.40
1000	207	3.107	7.98	0.63	23.06	1.114	1.194	1.56	.30	2.30	.00	1.95	1.40
1250	69	3.240	7.98	0.68	18.84	1.395	1.499	1.45	.28	2.20	.00	1.92	1.40
1250	103	3.240	7.98	0.68	18.84	1.272	1.377	1.45	.28	2.21	.00	1.93	1.40
1250	138	3.240	7.98	0.68	18.84	1.206	1.310	1.45	.28	2.22	.00	1.93	1.40
1250	207	3.240	7.98	0.68	18.84	1.138	1.243	1.45	.28	2.22	.00	1.93	1.40
1500	69	3.360	10.02	0.72	16.09	1.459	1.574	1.36	.27	2.02	.00	1.56	1.19
1500	103	3.360	10.02	0.72	16.09	1.317	1.431	1.36	.27	2.03	.00	1.57	1.19
1500	138	3.360	10.02	0.72	16.09	1.239	1.354	1.36	.27	2.03	.00	1.57	1.19
1500	207	3.360	10.02	0.72	16.09	1.161	1.275	1.36	.27	2.04	.00	1.57	1.19
1750	69	3.470	10.02	0.76	14.18	1.517	1.654	1.29	.26	1.97	.00	1.56	1.18
1750	103	3.470	10.02	0.76	14.18	1.357	1.493	1.29	.26	1.97	.00	1.56	1.18
1750	138	3.470	10.02	0.76	14.18	1.269	1.406	1.29	.26	1.98	.00	1.56	1.19
1750	207	3.470	10.02	0.76	14.18	1.181	1.318	1.29	.26	1.99	.00	1.56	1.19
2000	69	3.573	10.02	0.80	12.81	1.569	1.728	1.22	.26	1.92	.00	1.55	1.18
2000	103	3.573	10.02	0.80	12.81	1.393	1.551	1.22	.26	1.93	.00	1.55	1.18
2000	138	3.573	10.02	0.80	12.81	1.296	1.455	1.22	.26	1.93	.00	1.55	1.18
2000	207	3.573	10.02	0.80	12.81	1.199	1.358	1.22	.26	1.94	.00	1.56	1.18
2250	69	3.668	10.02	0.83	11.86	1.612	1.790	1.17	.25	1.88	.00	1.54	1.18
2250	103	3.668	10.02	0.83	11.86	1.422	1.600	1.17	.25	1.89	.00	1.54	1.18
2250	138	3.668	10.02	0.83	11.86	1.318	1.496	1.17	.25	1.89	.00	1.55	1.18
2250	207	3.668	10.02	0.83	11.86	1.214	1.392	1.17	.25	1.90	.00	1.55	1.18
2500	69	3.759	10.02	0.86	11.06	1.653	1.851	1.13	.24	1.84	.00	1.54	1.18
2500	103	3.759	10.02	0.86	11.06	1.450	1.648	1.13	.24	1.85	.00	1.54	1.18
2500	138	3.759	10.02	0.86	11.06	1.340	1.538	1.13	.24	1.86	.00	1.54	1.18
2500	207	3.759	10.02	0.86	11.06	1.228	1.427	1.13	.24	1.87	.00	1.54	1.18

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