230 kV 1/c Self Contained Liquid Filled Lead Sheathed Power Cable

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

25°C Earth Ambient

Condr Size	Sheath 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 .0027 pf & Rho 60	90	120
85°C - Copper Conductor - Hollow Core Concentric Strand										
1000	Open	856	801	795	727	742	667	8.1	9.8	11.6
1250	Open	966	901	894	815	832	745	8.4	10.2	12.1
1500	Open	1063	990	981	893	910	814	8.7	10.6	12.5
1750	Open	1151	1070	1059	961	980	874	8.9	10.9	13.0
2000	Open	1226	1138	1127	1021	1041	927	9.1	11.2	13.2
2250	Open	1301	1203	1184	1068	1084	961	10.9	13.4	16.0
85°C - Copper Conductor - Hollow Core Segmental Strand										
2000	Open	1243	1154	1142	1036	1056	940	9.1	11.2	13.2
2250	Open	1323	1223	1204	1086	1102	976	10.9	13.4	16.0
2500	Open	1393	1287	1266	1140	1157	1023	11.0	13.6	16.3
2750	Open	1462	1348	1325	1191	1206	1066	11.3	14.0	16.7
3000	Open	1518	1397	1372	1232	1249	1101	11.5	14.3	17.1

Copyright The Institute of Electrical and Electronics Engineers, Inc.
Provided by IHS under license with IEEE
No reproduction or networking permitted without license from IHS
Not for Resale

2506

230 kV 1/c Self Contained Liquid Filled Lead Sheathed Power Cable

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

25°C Earth Ambient

		60 Rho		90 Rho		120 Rho	
		75 LF	100 LF	75 LF	100 LF	75 LF	100 LF
Condr Size	Sheath Res	Total Watts/ft					
85°C - Copper Conductor - Hollow Core Concentric Strand							
1000	Open	34.6	30.9	30.5	26.3	27.2	22.9
1250	Open	35.8	31.8	31.4	26.9	27.9	23.4
1500	Open	36.8	32.6	32.2	27.6	28.4	23.8
1750	Open	37.9	33.5	32.9	28.1	29.0	24.3
2000	Open	38.5	34.0	33.5	28.5	29.4	24.6
2250	Open	40.6	35.8	34.9	29.7	30.4	25.5
85°C - Copper Conductor - Hollow Core Segmental Strand							
2000	Open	38.5	34.0	33.4	28.5	29.4	24.5
2250	Open	40.6	35.8	34.9	29.8	30.4	25.4
2500	Open	41.2	36.3	35.3	30.1	30.8	25.7
2750	Open	42.1	36.9	35.9	30.5	31.1	26.0
3000	Open	42.7	37.4	36.4	30.9	31.5	26.2

Copyright The Institute of Electrical and Electronics Engineers, Inc.
Provided by IHS under license with IEEE
No reproduction or networking permitted without license from IHS
Not for Resale

230 kV 1/c Self Contained Liquid Filled Lead Sheathed Power Cable

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

25°C Earth Ambient

Condr Size	Sheath Res	OD	Duct ID	Wd	Rac	Qs	Ri	Rj	Rsd	Rd	Re @ 90 Rho & loss factor 75%	100%
					85°C - Copper Conductor - Hollow Core Concentric Strand							
1000	Open	3.493	5.06	1.64	13.41	1.005	2.14	0.19	1.22	0.24	2.11	3.30
1250	Open	3.620	5.06	1.73	10.83	1.007	2.02	0.19	1.17	0.24	2.11	3.30
1500	Open	3.728	5.06	1.82	9.14	1.009	1.92	0.18	1.14	0.24	2.11	3.30
1750	Open	3.855	5.06	1.92	7.97	1.012	1.82	0.18	1.10	0.24	2.11	3.30
2000	Open	3.926	5.06	1.97	7.11	1.015	1.77	0.17	1.08	0.24	2.11	3.30
2250	Open	3.746	5.06	2.43	6.46	1.013	1.45	0.18	1.11	0.24	2.11	3.30
					85°C - Copper Conductor - Hollow Core Segmental Strand							
2000	Open	3.923	5.06	1.97	6.90	1.015	1.77	0.17	1.08	0.24	2.11	3.30
2250	Open	3.746	5.06	2.43	6.25	1.014	1.45	0.18	1.11	0.24	2.11	3.30
2500	Open	3.825	5.06	2.49	5.69	1.024	1.41	0.18	1.09	0.24	2.09	3.30
2750	Open	3.920	5.06	2.59	5.23	1.028	1.36	0.17	1.06	0.24	2.09	3.30
3000	Open	4.001	5.06	2.66	4.89	1.033	1.32	0.17	1.04	0.24	2.09	3.30

Copyright The Institute of Electrical and Electronics Engineers, Inc.
Provided by IHS under license with IEEE
No reproduction or networking permitted without license from IHS
Not for Resale

2508

230 kV 1/c Self Contained Liquid Filled Lead Sheathed Power Cable

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

25°C Earth Ambient

Condr Size	Sheath 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 .0027 pf & Rho 60	90	120
				85°C - Copper Conductor - Hollow Core Concentric Strand						
1000	Open	752	678	659	578	584	503	11.2	14.8	18.3
1250	Open	844	758	735	644	649	557	11.7	15.4	19.2
1500	Open	924	828	801	700	704	604	12.1	16.0	20.0
1750	Open	995	890	859	748	750	642	12.6	16.7	20.9
2000	Open	1057	944	910	791	792	677	12.8	17.1	21.4
2250	Open	1103	980	931	805	793	675	15.5	20.7	26.0
				85°C - Copper Conductor - Hollow Core Segmental Strand						
2000	Open	1072	957	923	803	804	687	12.8	17.1	21.4
2250	Open	1121	996	946	818	806	686	15.5	20.7	26.0
2500	Open	1177	1045	989	855	839	714	15.8	21.2	26.6
2750	Open	1229	1089	1028	887	867	736	16.2	21.8	27.5
3000	Open	1272	1125	1059	912	890	754	16.6	22.3	28.1

Copyright The Institute of Electrical and Electronics Engineers, Inc.
Provided by IHS under license with IEEE
No reproduction or networking permitted without license from IHS
Not for Resale

230 kV 1/c Self Contained Liquid Filled Lead Sheathed Power Cable

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

25°C Earth Ambient

Condr Size	Sheath 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					
85°C - Copper Conductor - Hollow Core Concentric Strand							
1000	Open	55.6	47.0	45.0	36.9	37.4	30.3
1250	Open	57.1	48.1	45.8	37.6	38.0	30.7
1500	Open	58.3	49.0	46.5	38.1	38.4	31.2
1750	Open	59.6	50.0	47.3	38.7	38.8	31.5
2000	Open	60.3	50.5	47.8	39.0	39.1	31.7
2250	Open	62.5	52.4	48.7	40.1	39.3	32.5
85°C - Copper Conductor - Hollow Core Segmental Strand							
2000	Open	60.3	50.4	47.8	39.0	39.1	31.7
2250	Open	62.5	52.4	48.7	40.1	39.3	32.5
2500	Open	63.2	53.0	49.0	40.4	39.5	32.7
2750	Open	64.0	53.6	49.5	40.8	39.7	32.9
3000	Open	64.8	54.1	49.8	41.0	39.9	33.1

Copyright The Institute of Electrical and Electronics Engineers, Inc.
Provided by IHS under license with IEEE
No reproduction or networking permitted without license from IHS

Not for Resale

2510

230 kV 1/c Self Contained Liquid Filled Lead Sheathed Power Cable

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

25°C Earth Ambient

Condr Size	Sheath Res	OD	Duct ID	Wd	Rac	Qs	Ri	Rj	Rsd	Rd	Re @ 90 Rho & loss factor 75%	Re @ 90 Rho & loss factor 100%
					85°C - Copper Conductor - Hollow Core Concentric Strand							
1000	Open	3.493	5.06	1.64	13.41	1.005	2.14	0.19	1.16	0.24	4.00	6.34
1250	Open	3.620	5.06	1.73	10.83	1.008	2.02	0.19	1.12	0.24	4.00	6.34
1500	Open	3.728	5.06	1.82	9.14	1.010	1.92	0.18	1.09	0.24	4.00	6.34
1750	Open	3.855	5.06	1.92	7.97	1.013	1.82	0.18	1.05	0.24	4.00	6.34
2000	Open	3.926	5.06	1.97	7.11	1.016	1.77	0.17	1.03	0.24	4.00	6.34
2250	Open	3.746	5.06	2.43	6.46	1.015	1.45	0.18	1.06	0.24	4.00	6.34
					85°C - Copper Conductor - Hollow Core Segmental Strand							
2000	Open	3.923	5.06	1.97	6.90	1.016	1.77	0.17	1.03	0.24	4.00	6.34
2250	Open	3.746	5.06	2.43	6.25	1.015	1.45	0.18	1.06	0.24	4.00	6.34
2500	Open	3.825	5.06	2.49	5.69	1.018	1.41	0.18	1.04	0.24	4.00	6.34
2750	Open	3.920	5.06	2.59	5.23	1.022	1.36	0.17	1.02	0.24	4.00	6.34
3000	Open	4.001	5.06	2.66	4.89	1.025	1.32	0.17	0.99	0.24	4.00	6.34

Copyright The Institute of Electrical and Electronics Engineers, Inc.
Provided by IHS under license with IEEE
No reproduction or networking permitted without license from IHS

Not for Resale

230 kV 1/c Self Contained Liquid Filled Lead Sheathed Power Cable

Direct Buried - 1 Circuit - Three Cables - Spaced

25°C Earth Ambient

Condr Size	Sheath Res	60 Rho Interface Amps	60 Rho Interface °C	60 Rho Interface w/ft²	90 Rho Interface Amps	90 Rho Interface °C	90 Rho Interface w/ft²	120 Rho Interface Amps	120 Rho Interface °C	120 Rho Interface w/ft²	delta Td for .0027 pf & Rho 60	90	120
						75% LF							
						85°C - Copper Conductor - Hollow Core Concentric Strand							
1000	Open	1018	53	17.2	916	59	14.2	835	63	12.1	5.8	7.7	9.6
1250	Open	1151	53	17.2	1032	60	14.2	938	64	12.0	6.0	8.0	10.0
1500	Open	1269	54	17.3	1134	60	14.2	1028	65	12.0	6.2	8.3	10.4
1750	Open	1376	55	17.3	1226	61	14.2	1108	65	11.9	6.4	8.6	10.8
2000	Open	1467	55	17.3	1304	61	14.1	1178	66	11.9	6.5	8.8	11.0
2250	Open	1591	58	19.7	1394	64	15.7	1243	69	12.9	7.7	10.5	13.2
						85°C - Copper Conductor - Hollow Core Segmental Strand							
2000	Open	1488	55	17.3	1323	61	14.1	1194	66	11.9	6.5	8.8	11.0
2250	Open	1617	58	19.8	1417	65	15.7	1263	69	13.1	7.7	10.5	13.2
2500	Open	1705	59	19.7	1490	65	15.7	1326	69	12.9	7.8	10.7	13.5
2750	Open	1790	59	19.7	1560	65	15.6	1386	70	12.8	8.1	11.0	13.9
3000	Open	1859	60	19.7	1617	66	15.5	1434	70	12.7	8.2	11.2	14.2

Copyright The Institute of Electrical and Electronics Engineers, Inc.
Provided by IHS under license with IEEE
No reproduction or networking permitted without license from IHS
Not for Resale

2512

230 kV 1/c Self Contained Liquid Filled Lead Sheathed Power Cable

Direct Buried - 1 Circuit - Three Cables - Spaced

25°C Earth Ambient

Condr Size	Sheath Res	60 Rho Interface Temp Amps	60 Rho Interface Temp °C	60 Rho Interface Flux w/ft²	90 Rho Interface Temp Amps	90 Rho Interface Temp °C	90 Rho Interface Flux w/ft²	120 Rho Interface Temp Amps	120 Rho Interface Temp °C	120 Rho Interface Flux w/ft²	delta Td for .0027 pf & Rho 60	90	120
						100% LF							
						85°C - Copper Conductor - Hollow Core Concentric Strand							
1000	Open	932	58	14.7	819	64	11.8	735	68	9.8	5.8	7.7	9.6
1250	Open	1050	59	14.7	919	65	11.7	822	69	9.7	6.0	8.0	10.0
1500	Open	1154	59	14.7	1008	66	11.6	898	70	9.6	6.2	8.3	10.4
1750	Open	1248	60	14.6	1086	66	11.5	965	70	9.5	6.4	8.6	10.8
2000	Open	1329	61	14.6	1154	67	11.5	1024	71	9.4	6.5	8.8	11.0
2250	Open	1429	63	16.4	1223	69	12.6	1073	73	10.3	7.7	10.5	13.2
						85°C - Copper Conductor - Hollow Core Segmental Strand							
2000	Open	1348	61	14.6	1170	67	11.5	1039	71	9.4	6.5	8.8	11.0
2250	Open	1453	63	16.4	1243	69	12.6	1091	73	10.3	7.7	10.5	13.2
2500	Open	1529	64	16.4	1305	70	12.6	1143	73	10.2	7.8	10.7	13.5
2750	Open	1602	64	16.3	1364	70	12.5	1192	74	10.1	8.1	11.0	13.9
3000	Open	1660	65	16.1	1411	70	12.4	1231	74	10.0	8.2	11.2	14.2

Copyright The Institute of Electrical and Electronics Engineers, Inc.
Provided by IHS under license with IEEE
No reproduction or networking permitted without license from IHS
Not for Resale

230 kV 1/c Self Contained Liquid Filled Lead Sheathed Power Cable

Direct Buried - 1 Circuit - Three Cables - Spaced

25°C Earth Ambient

Condr Size	Sheath 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					
85°C - Copper Conductor - Hollow Core Concentric Strand							
1000	Open	46.9	40.1	38.9	32.1	33.1	26.8
1250	Open	48.6	41.3	40.1	32.9	34.0	27.3
1500	Open	50.2	42.4	41.2	33.7	34.8	27.9
1750	Open	51.8	43.6	42.3	34.4	35.6	28.4
2000	Open	52.7	44.3	42.9	34.9	36.1	28.7
2250	Open	57.2	47.5	45.6	36.8	37.7	30.0
85°C - Copper Conductor - Hollow Core Segmental Strand							
2000	Open	52.6	44.3	42.9	34.8	36.0	28.7
2250	Open	57.2	47.6	45.6	36.8	37.7	30.0
2500	Open	58.1	48.2	46.1	37.1	38.1	30.2
2750	Open	59.3	49.0	46.9	37.7	38.6	30.6
3000	Open	60.2	49.6	47.5	38.1	39.1	30.9

Copyright The Institute of Electrical and Electronics Engineers, Inc.
Provided by IHS under license with IEEE
No reproduction or networking permitted without license from IHS
Not for Resale

2514

230 kV 1/c Self Contained Liquid Filled Lead Sheathed Power Cable

Direct Buried - 1 Circuit - Three Cables - Spaced

25°C Earth Ambient

Condr Size	Sheath Res	OD	Wd	Rac	Qs	Ri	Rj	Re @ 90 Rho & loss factor 75%	100%
			85°C - Copper Conductor - Hollow Core Concentric Strand						
1000	Open	3.493	1.64	13.41	1.009	2.14	0.19	2.29	3.44
1250	Open	3.620	1.73	10.83	1.012	2.02	0.19	2.27	3.43
1500	Open	3.728	1.82	9.14	1.016	1.92	0.18	2.26	3.41
1750	Open	3.855	1.92	7.97	1.021	1.82	0.18	2.24	3.40
2000	Open	3.926	1.97	7.11	1.025	1.77	0.17	2.23	3.39
2250	Open	3.746	2.43	6.46	1.023	1.45	0.18	2.26	3.41
			85°C - Copper Conductor - Hollow Core Segmental Strand						
2000	Open	3.923	1.97	6.90	1.026	1.77	0.17	2.23	3.39
2250	Open	3.746	2.43	6.25	1.024	1.45	0.18	2.26	3.41
2500	Open	3.825	2.49	5.69	1.029	1.41	0.18	2.25	3.40
2750	Open	3.920	2.59	5.23	1.034	1.36	0.17	2.24	3.39
3000	Open	4.001	2.66	4.89	1.040	1.32	0.17	2.23	3.38

Copyright The Institute of Electrical and Electronics Engineers, Inc.
Provided by IHS under license with IEEE
No reproduction or networking permitted without license from IHS
Not for Resale

230 kV 1/c Self Contained Liquid Filled Lead Sheathed Power Cable

Direct Buried - 2 Circuits - Six Cables - Spaced

25°C Earth Ambient

Condr Size	Sheath Res	60 Rho Interface Temp	60 Rho Flux	60 Rho Amps	90 Rho Interface Temp	90 Rho Flux	90 Rho Amps	120 Rho Interface Temp	120 Rho Flux	120 Rho Amps	delta Td for .0027 pf & Rho 60	90	120
		°C	w/ft²	Amps	°C	w/ft²	Amps	°C	w/ft²	Amps			
						75% LF							
					85°C - Copper Conductor - Hollow Core Concentric Strand								
1000	Open	56	15.6	965	62	12.7	854	67	10.6	768	6.8	9.2	11.5
1250	Open	57	15.6	1088	63	12.6	959	67	10.4	860	7.1	9.6	12.1
1500	Open	57	15.7	1197	64	12.5	1052	68	10.3	940	7.3	9.9	12.5
1750	Open	58	15.7	1295	65	12.4	1134	69	10.3	1011	7.5	10.3	13.0
2000	Open	59	15.7	1379	65	12.4	1205	69	10.2	1072	7.7	10.5	13.3
2250	Open	62	17.5	1486	68	13.7	1277	72	11.0	1119	9.1	12.6	16.1
					85°C - Copper Conductor - Hollow Core Segmental Strand								
2000	Open	59	15.7	1399	65	12.4	1222	69	10.2	1087	7.7	10.5	13.3
2250	Open	62	17.6	1510	68	13.7	1298	72	11.0	1138	9.1	12.6	16.1
2500	Open	62	17.6	1589	68	13.6	1362	72	11.0	1192	9.3	12.8	16.4
2750	Open	63	17.4	1666	69	13.4	1423	73	10.8	1242	9.5	13.2	16.9
3000	Open	63	17.4	1727	69	13.4	1472	73	10.7	1282	9.7	13.5	17.2

Copyright The Institute of Electrical and Electronics Engineers, Inc.
Provided by IHS under license with IEEE
No reproduction or networking permitted without license from IHS

Not for Resale

2516

230 kV 1/c Self Contained Liquid Filled Lead Sheathed Power Cable

Direct Buried - 2 Circuits - Six Cables - Spaced

25°C Earth Ambient

Condr Size	Sheath 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 .0027 pf & Rho 60	90	120
						100% LF							
						85°C - Copper Conductor - Hollow Core Concentric Strand							
1000	Open	869	61	13.0	752	67	10.2	666	71	8.4	6.8	9.2	11.5
1250	Open	977	62	13.0	842	68	10.1	743	72	8.2	7.1	9.6	12.1
1500	Open	1072	63	12.9	920	69	10.0	810	72	8.2	7.3	9.9	12.5
1750	Open	1157	64	12.9	990	69	9.9	868	73	8.0	7.5	10.3	13.0
2000	Open	1230	64	12.8	1050	70	9.8	919	73	8.0	7.7	10.5	13.3
2250	Open	1314	67	14.3	1104	72	10.8	953	75	8.7	9.1	12.6	16.1
						85°C - Copper Conductor - Hollow Core Segmental Strand							
2000	Open	1248	64	12.9	1065	70	9.8	932	73	8.0	7.7	10.5	13.3
2250	Open	1336	67	14.3	1122	72	10.8	968	75	8.7	9.1	12.6	16.1
2500	Open	1403	67	14.2	1176	73	10.7	1013	76	8.6	9.3	12.8	16.4
2750	Open	1467	68	14.1	1226	73	10.6	1055	76	8.5	9.5	13.2	16.9
3000	Open	1519	68	14.0	1267	73	10.5	1087	76	8.4	9.7	13.5	17.2

Copyright The Institute of Electrical and Electronics Engineers, Inc.
Provided by IHS under license with IEEE
No reproduction or networking permitted without license from IHS
Not for Resale

230 kV 1/c Self Contained Liquid Filled Lead Sheathed Power Cable

Direct Buried - 2 Circuits - Six Cables - Spaced

25°C Earth Ambient

Condr Size	Sheath 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					
85°C - Copper Conductor - Hollow Core Concentric Strand							
1000	Open	85.3	71.0	68.9	55.7	57.6	45.8
1250	Open	88.1	73.1	70.8	57.0	59.0	46.7
1500	Open	90.6	74.9	72.5	58.0	60.1	47.4
1750	Open	93.2	76.7	74.1	59.2	61.3	48.2
2000	Open	94.7	77.8	75.1	59.9	61.9	48.6
2250	Open	101.9	82.8	79.1	62.8	64.1	50.5
85°C - Copper Conductor - Hollow Core Segmental Strand							
2000	Open	94.8	77.8	75.1	59.9	61.9	48.6
2250	Open	101.9	82.9	79.1	62.8	64.2	50.4
2500	Open	103.3	83.8	79.8	63.3	64.6	50.8
2750	Open	105.2	85.1	80.9	64.1	65.4	51.5
3000	Open	106.6	86.1	81.8	64.7	65.9	51.9

Copyright The Institute of Electrical and Electronics Engineers, Inc.
Provided by IHS under license with IEEE
No reproduction or networking permitted without license from IHS
Not for Resale

230 kV 1/c Self Contained Liquid Filled Lead Sheathed Power Cable

Direct Buried - 2 Circuits - Six Cables - Spaced

25°C Earth Ambient

Condr Size	Sheath Res	OD	Wd	Rac	Qs	Ri	Rj	Re @ 90 Rho & loss factor 75%	100%
85°C - Copper Conductor - Hollow Core Concentric Strand									
1000	Open	3.493	1.64	13.41	1.007	2.14	0.19	2.84	4.33
1250	Open	3.620	1.73	10.83	1.010	2.02	0.19	2.82	4.32
1500	Open	3.728	1.82	9.14	1.013	1.92	0.18	2.81	4.30
1750	Open	3.855	1.92	7.97	1.017	1.82	0.18	2.79	4.29
2000	Open	3.926	1.97	7.11	1.028	1.77	0.17	2.77	4.28
2250	Open	3.746	2.43	6.46	1.026	1.45	0.18	2.79	4.30
85°C - Copper Conductor - Hollow Core Segmental Strand									
2000	Open	3.923	1.97	6.90	1.028	1.77	0.17	2.77	4.28
2250	Open	3.746	2.43	6.25	1.026	1.45	0.18	2.79	4.30
2500	Open	3.825	2.49	5.69	1.032	1.41	0.18	2.78	4.29
2750	Open	3.920	2.59	5.23	1.037	1.36	0.17	2.77	4.25
3000	Open	4.001	2.66	4.89	1.044	1.32	0.17	2.76	4.24

Copyright The Institute of Electrical and Electronics Engineers, Inc.
Provided by IHS under license with IEEE
No reproduction or networking permitted without license from IHS
Not for Resale

230 kV 1/c Self Contained Liquid Filled Lead Sheathed Power Cable

Isolated Cable in Non-Metallic Conduit in Air

40°C Air Ambient

Condr Size	Sheath Res	No Sun 0 Ft/s	No Sun 2 Ft/s	Full Sun 0 Ft/s	Full Sun 2 Ft/s	delta Td for .0027 pf No Sun 0 Ft/s	delta Td for .0027 pf No Sun 2 Ft/s
		85°C - Copper Conductor - Hollow Core Concentric Strand					
1000	Open	772	794	460	554	6.2	5.8
1250	Open	874	900	519	627	6.4	6.0
1500	Open	966	995	572	692	6.5	6.1
1750	Open	1050	1083	621	752	6.7	6.2
2000	Open	1123	1158	662	803	6.7	6.3
2250	Open	1191	1232	681	840	8.0	7.5
		85°C - Copper Conductor - Hollow Core Segmental Strand					
2000	Open	1136	1172	670	813	6.7	6.3
2250	Open	1212	1254	693	856	8.0	7.5
2500	Open	1282	1326	731	904	8.1	7.6
2750	Open	1350	1398	768	951	8.3	7.7
3000	Open	1406	1457	798	990	8.4	7.8

Copyright The Institute of Electrical and Electronics Engineers, Inc.
Provided by IHS under license with IEEE
No reproduction or networking permitted without license from IHS
Not for Resale

2520

230 kV 1/c Self Contained Liquid Filled Lead Sheathed Power Cable

Isolated Cable in Non-Metallic Conduit in Air

40°C Air Ambient

Condr Size	Sheath Res	No Sun 0 Ft/s	No Sun 2 Ft/s	Full Sun 0 Ft/s	Full Sun 2 Ft/s
		Total Watts/ft			
85°C - Copper Conductor - Hollow Core Concentric Strand					
1000	Open	28.9	30.3	13.4	17.3
1250	Open	30.0	31.5	13.9	17.9
1500	Open	31.0	32.5	14.4	18.5
1750	Open	32.0	33.6	14.9	19.2
2000	Open	32.6	34.3	15.2	19.6
2250	Open	34.8	36.7	16.3	21.0
85°C - Copper Conductor - Hollow Core Segmental Strand					
2000	Open	32.6	34.3	15.2	19.6
2250	Open	34.7	36.7	16.3	21.0
2500	Open	35.4	37.4	16.6	21.4
2750	Open	36.2	38.3	17.0	21.9
3000	Open	36.8	39.0	17.3	22.3

Copyright The Institute of Electrical and Electronics Engineers, Inc.
Provided by IHS under license with IEEE
No reproduction or networking permitted without license from IHS
Not for Resale

230 kV 1/c Self Contained Liquid Filled Lead Sheathed Power Cable

Isolated Cable in Non-Metallic Conduit in Air

40°C Air Ambient

Condr Size	Sheath Res	OD	Duct ID	Wd	Rac	Qs	Ri	Rj	Rsd	Rd	Re No Sun 0 fps	Re No Sun 2 fps
					85°C - Copper Conductor - Hollow Core Concentric Strand							
1000	Open	3.493	5.05	1.64	13.40	1.000	2.14	0.19	1.47	0.31	0.75	0.52
1250	Open	3.620	5.05	1.73	10.80	1.000	2.02	0.19	1.42	0.31	0.75	0.52
1500	Open	3.728	5.05	1.82	9.11	1.000	1.92	0.18	1.38	0.31	0.74	0.51
1750	Open	3.855	5.05	1.92	7.92	1.000	1.82	0.18	1.34	0.31	0.74	0.51
2000	Open	3.926	5.05	1.97	7.05	1.000	1.77	0.17	1.32	0.31	0.74	0.51
2250	Open	3.746	5.05	2.43	6.46	1.000	1.45	0.18	1.36	0.31	0.74	0.51
					85°C - Copper Conductor - Hollow Core Segmental Strand							
2000	Open	3.923	5.05	1.97	6.88	1.000	1.77	0.17	1.32	0.31	0.74	0.51
2250	Open	3.746	5.05	2.43	6.23	1.000	1.45	0.18	1.36	0.31	0.74	0.51
2500	Open	3.825	5.05	2.49	5.66	1.000	1.41	0.18	1.34	0.31	0.73	0.51
2750	Open	3.920	5.05	2.59	5.20	1.000	1.36	0.17	1.31	0.31	0.73	0.51
3000	Open	4.001	5.05	2.66	4.86	1.000	1.32	0.17	1.28	0.31	0.73	0.51

Copyright The Institute of Electrical and Electronics Engineers, Inc.
Provided by IHS under license with IEEE
No reproduction or networking permitted without license from IHS

Not for Resale

2522

230 kV 1/c Self Contained Liquid Filled Lead Sheathed Power Cable

Isolated Cable in Free Air

40°C Air Ambient

Condr Size	Sheath Res	No Sun 0 Ft/s	No Sun 2 Ft/s	Full Sun 0 Ft/s	Full Sun 2 Ft/s	delta Td for .0027 pf No Sun 0 Ft/s	delta Td for .0027 pf No Sun 2 Ft/s
85°C - Copper Conductor - Hollow Core Concentric Strand							
1000	Open	953	1009	619	752	3.8	3.3
1250	Open	1087	1150	704	855	3.8	3.3
1500	Open	1209	1279	781	948	3.9	3.3
1750	Open	1324	1401	854	1035	3.9	3.4
2000	Open	1421	1504	915	1109	3.9	3.4
2250	Open	1553	1656	998	1222	4.5	3.9
85°C - Copper Conductor - Hollow Core Segmental Strand							
2000	Open	1437	1521	926	1122	3.9	3.4
2250	Open	1582	1687	1016	1245	4.5	3.9
2500	Open	1679	1790	1077	1318	4.6	3.9
2750	Open	1778	1896	1138	1393	4.6	3.9
3000	Open	1860	1983	1189	1454	4.6	3.9

Copyright The Institute of Electrical and Electronics Engineers, Inc.
Provided by IHS under license with IEEE
No reproduction or networking permitted without license from IHS
Not for Resale

230 kV 1/c Self Contained Liquid Filled Lead Sheathed Power Cable

Isolated Cable in Free Air

40°C Air Ambient

Condr Size	Sheath Res	No Sun 0 Ft/s	No Sun 2 Ft/s	Full Sun 0 Ft/s	Full Sun 2 Ft/s
		Total Watts/ft			
85°C - Copper Conductor - Hollow Core Concentric Strand					
1000	Open	13.8	15.3	6.8	9.2
1250	Open	14.5	16.0	7.1	9.6
1500	Open	15.1	16.7	7.4	10.0
1750	Open	15.8	17.5	7.7	10.4
2000	Open	16.2	17.9	7.9	10.6
2250	Open	18.0	20.1	8.9	12.1
85°C - Copper Conductor - Hollow Core Segmental Strand					
2000	Open	16.2	17.9	7.9	10.6
2250	Open	18.0	20.2	8.9	12.1
2500	Open	18.5	20.6	9.1	12.3
2750	Open	19.0	21.3	9.3	12.7
3000	Open	19.5	21.8	9.5	12.9

Copyright The Institute of Electrical and Electronics Engineers, Inc.
Provided by IHS under license with IEEE
No reproduction or networking permitted without license from IHS
Not for Resale

230 kV 1/c Self Contained Liquid Filled Lead Sheathed Power Cable

Isolated Cable in Free Air

40°C Air Ambient

Condr Size	Sheath Res	OD	Duct ID	Wd	Rac	Qs	Ri	Rj	Rsd	Rd	Re No Sun 0 fps	Re Sun 2 fps
85°C - Copper Conductor - Hollow Core Concentric Strand												
1000	Open	3.493	9.99	1.64	13.40	1.000	2.14	0.19	0.00	0.00	1.05	0.73
1250	Open	3.620	9.99	1.73	10.80	1.000	2.02	0.19	0.00	0.00	1.02	0.71
1500	Open	3.728	9.99	1.82	9.11	1.000	1.92	0.18	0.00	0.00	0.99	0.69
1750	Open	3.855	9.99	1.92	7.92	1.000	1.82	0.18	0.00	0.00	0.96	0.68
2000	Open	3.926	9.99	1.97	7.05	1.000	1.77	0.17	0.00	0.00	0.94	0.67
2250	Open	3.746	9.99	2.43	6.46	1.000	1.45	0.18	0.00	0.00	0.96	0.69
85°C - Copper Conductor - Hollow Core Segmental Strand												
2000	Open	3.923	9.99	1.97	6.88	1.000	1.77	0.17	0.00	0.00	0.94	0.67
2250	Open	3.746	9.99	2.43	6.23	1.000	1.45	0.18	0.00	0.00	0.96	0.69
2500	Open	3.825	9.99	2.49	5.66	1.000	1.41	0.18	0.00	0.00	0.95	0.68
2750	Open	3.920	9.99	2.59	5.20	1.000	1.36	0.17	0.00	0.00	0.92	0.66
3000	Open	4.001	9.99	2.66	4.86	1.000	1.32	0.17	0.00	0.00	0.91	0.65

Copyright The Institute of Electrical and Electronics Engineers, Inc.
Provided by IHS under license with IEEE
No reproduction or networking permitted without license from IHS

Not for Resale

230 kV 1/c Self Contained Liquid Filled Lead Sheathed Power Cable

Isolated Cable in Non-Metallic Unventilated Riser in Air

40°C Air Ambient

Condr Size	Sheath Res	No Sun 0 Ft/s	No Sun 2 Ft/s	Full Sun 0 Ft/s	Full Sun 2 Ft/s	delta Td for .0027 pf No Sun 0 Ft/s	delta Td for .0027 pf No Sun 2 Ft/s
85°C - Copper Conductor - Hollow Core Concentric Strand							
1000	Open	802	827	593	663	5.7	5.3
1250	Open	909	938	671	752	5.9	5.5
1500	Open	1004	1038	741	831	6.0	5.6
1750	Open	1093	1131	806	905	6.1	5.7
2000	Open	1168	1210	861	967	6.2	5.8
2250	Open	1249	1297	909	1029	7.3	6.8
85°C - Copper Conductor - Hollow Core Segmental Strand							
2000	Open	1182	1224	871	979	6.2	5.8
2250	Open	1272	1320	926	1048	7.3	6.8
2500	Open	1345	1397	978	1108	7.4	6.8
2750	Open	1417	1473	1030	1167	7.5	7.0
3000	Open	1476	1535	1072	1216	7.6	7.0

Copyright The Institute of Electrical and Electronics Engineers, Inc.
Provided by IHS under license with IEEE
No reproduction or networking permitted without license from IHS
Not for Resale

2526

230 kV 1/c Self Contained Liquid Filled Lead Sheathed Power Cable

Isolated Cable in Non-Metallic Unventilated Riser in Air

40°C Air Ambient

Condr Size	Sheath Res	No Sun 0 Ft/s	No Sun 2 Ft/s	Full Sun 0 Ft/s	Full Sun 2 Ft/s
		Total Watts/ft			
85°C - Copper Conductor - Hollow Core Concentric Strand					
1000	Open	10.3	10.8	6.3	7.5
1250	Open	10.7	11.2	6.6	7.8
1500	Open	11.0	11.6	6.8	8.1
1750	Open	11.4	12.1	7.1	8.4
2000	Open	11.6	12.3	7.2	8.6
2250	Open	12.5	13.3	7.8	9.3
85°C - Copper Conductor - Hollow Core Segmental Strand					
2000	Open	11.6	12.3	7.2	8.6
2250	Open	12.5	13.3	7.8	9.3
2500	Open	12.7	13.5	7.9	9.4
2750	Open	13.0	13.9	8.1	9.7
3000	Open	13.3	14.1	8.2	9.9

Copyright The Institute of Electrical and Electronics Engineers, Inc.
Provided by IHS under license with IEEE
No reproduction or networking permitted without license from IHS
Not for Resale

230 kV 1/c Self Contained Liquid Filled Lead Sheathed Power Cable

Isolated Cable in Non-Metallic Unventilated Riser in Air

40°C Air Ambient

Condr Size	Sheath Res	OD	Duct ID	Wd	Rac	Qs	Ri	Rj	Rsd	Rd	Re No Sun 0 fps	Re Sun 2 fps
					85°C - Copper Conductor - Hollow Core Concentric Strand							
1000	Open	3.493	5.05	1.64	13.40	1.000	2.14	0.19	1.17	0.31	0.75	0.51
1250	Open	3.620	5.05	1.73	10.80	1.000	2.02	0.19	1.13	0.31	0.75	0.51
1500	Open	3.728	5.05	1.82	9.11	1.000	1.92	0.18	1.10	0.31	0.75	0.51
1750	Open	3.855	5.05	1.92	7.92	1.000	1.82	0.18	1.06	0.31	0.74	0.51
2000	Open	3.926	5.05	1.97	7.05	1.000	1.77	0.17	1.04	0.31	0.74	0.51
2250	Open	3.746	5.05	2.43	6.46	1.000	1.45	0.18	1.07	0.31	0.74	0.51
					85°C - Copper Conductor - Hollow Core Segmental Strand							
2000	Open	3.923	5.05	1.97	6.88	1.000	1.77	0.17	1.04	0.31	0.74	0.51
2250	Open	3.746	5.05	2.43	6.23	1.000	1.45	0.18	1.07	0.31	0.74	0.51
2500	Open	3.825	5.05	2.49	5.66	1.000	1.41	0.18	1.05	0.31	0.74	0.51
2750	Open	3.920	5.05	2.59	5.20	1.000	1.36	0.17	1.02	0.31	0.73	0.51
3000	Open	4.001	5.05	2.66	4.86	1.000	1.32	0.17	1.00	0.31	0.73	0.51

Copyright The Institute of Electrical and Electronics Engineers, Inc.
Provided by IHS under license with IEEE
No reproduction or networking permitted without license from IHS
Not for Resale