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 - Aluminum Conductor - Hollow Core Concentric Strand										
1000	Open	670	626	622	569	580	521	8.1	9.8	11.6
1250	Open	758	707	702	640	653	585	8.4	10.2	12.1
1500	Open	837	780	773	703	718	641	8.7	10.6	12.5
1750	Open	912	848	839	762	777	693	8.9	10.9	13.0
2000	Open	977	907	898	814	830	739	9.1	11.2	13.3
2250	Open	1040	962	947	855	867	768	10.9	13.4	16.0
85°C - Aluminum Conductor - Hollow Core Segmental Strand										
2000	Open	984	914	905	820	836	745	9.1	11.2	13.2
2250	Open	1051	972	957	863	876	776	10.9	13.4	16.0
2500	Open	1112	1027	1011	911	924	817	11.1	13.7	16.3
2750	Open	1172	1081	1062	955	968	855	11.4	14.1	16.8
3000	Open	1222	1126	1105	993	1006	887	11.6	14.3	17.1

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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
		Total Watts/ft					
85°C - Aluminum Conductor - Hollow Core Concentric Strand							
1000	Open	34.6	30.8	30.5	26.3	27.1	22.8
1250	Open	35.7	31.8	31.4	27.0	27.9	23.4
1500	Open	36.7	32.6	32.1	27.5	28.5	23.8
1750	Open	37.8	33.5	32.9	28.1	29.0	24.3
2000	Open	38.4	33.9	33.4	28.5	29.4	24.5
2250	Open	40.5	35.7	34.8	29.7	30.4	25.4
85°C - Aluminum Conductor - Hollow Core Segmental Strand							
2000	Open	38.4	33.9	33.4	28.4	29.3	24.5
2250	Open	40.5	35.7	34.8	29.7	30.4	25.4
2500	Open	41.1	36.2	35.3	30.1	30.7	25.6
2750	Open	41.9	36.8	35.8	30.4	31.1	25.9
3000	Open	42.5	37.3	36.2	30.8	31.4	26.2

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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%	Re @ 90 Rho & loss factor 100%
					85°C - Aluminum Conductor - Hollow Core Concentric Strand							
1000	Open	3.493	5.06	1.64	21.96	1.003	2.14	0.19	1.22	0.24	2.11	3.30
1250	Open	3.620	5.06	1.73	17.62	1.004	2.02	0.19	1.17	0.24	2.11	3.30
1500	Open	3.728	5.06	1.82	14.76	1.006	1.92	0.18	1.14	0.24	2.11	3.30
1750	Open	3.855	5.06	1.92	12.73	1.008	1.82	0.18	1.10	0.24	2.11	3.30
2000	Open	3.926	5.06	1.97	11.22	1.009	1.77	0.17	1.08	0.24	2.11	3.30
2250	Open	3.746	5.06	2.43	10.14	1.009	1.45	0.18	1.11	0.24	2.11	3.30
					85°C - Aluminum Conductor - Hollow Core Segmental Strand							
2000	Open	3.923	5.06	1.97	11.05	1.009	1.77	0.17	1.08	0.24	2.11	3.30
2250	Open	3.746	5.06	2.43	9.93	1.009	1.45	0.18	1.11	0.24	2.11	3.30
2500	Open	3.825	5.06	2.49	8.96	1.011	1.41	0.18	1.09	0.24	2.11	3.30
2750	Open	3.920	5.06	2.59	8.17	1.013	1.36	0.17	1.06	0.24	2.11	3.30
3000	Open	4.001	5.06	2.66	7.58	1.015	1.32	0.17	1.04	0.24	2.11	3.30

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2554

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 - Aluminum Conductor - Hollow Core Concentric Strand										
1000	Open	588	530	515	452	457	394	11.2	14.8	18.3
1250	Open	662	595	577	505	509	438	11.7	15.4	19.2
1500	Open	728	653	632	552	555	476	12.1	16.0	20.0
1750	Open	789	706	681	593	595	509	12.6	16.7	20.9
2000	Open	843	753	725	631	632	540	12.8	17.1	21.4
2250	Open	882	784	744	644	634	540	15.5	20.7	26.0
85°C - Aluminum Conductor - Hollow Core Segmental Strand										
2000	Open	849	759	731	636	637	545	12.8	17.1	21.4
2250	Open	891	792	752	651	641	545	15.5	20.7	26.0
2500	Open	940	834	790	683	670	570	15.8	21.2	26.6
2750	Open	986	874	825	712	696	591	16.2	21.8	27.5
3000	Open	1024	906	854	736	717	608	16.6	22.3	28.1

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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 - Aluminum Conductor - Hollow Core Concentric Strand							
1000	Open	55.6	47.0	44.9	36.9	37.5	30.4
1250	Open	57.0	48.0	45.8	37.5	37.9	30.8
1500	Open	58.2	49.0	46.6	38.1	38.4	31.1
1750	Open	59.5	49.9	47.2	38.6	38.8	31.5
2000	Open	60.2	50.4	47.6	39.0	39.0	31.7
2250	Open	62.3	52.3	48.6	40.0	39.2	32.5
85°C - Aluminum Conductor - Hollow Core Segmental Strand							
2000	Open	60.1	50.4	47.6	38.9	39.0	31.7
2250	Open	62.4	52.4	48.6	40.1	39.3	32.5
2500	Open	63.1	52.9	49.0	40.4	39.4	32.7
2750	Open	63.9	53.5	49.4	40.8	39.6	32.9
3000	Open	64.5	54.0	49.7	41.0	39.8	33.1

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2556

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%	100%
					85°C - Aluminum Conductor - Hollow Core Concentric Strand							
1000	Open	3.493	5.06	1.64	21.96	1.003	2.14	0.19	1.16	0.24	4.00	6.34
1250	Open	3.620	5.06	1.73	17.62	1.005	2.02	0.19	1.12	0.24	4.00	6.34
1500	Open	3.728	5.06	1.82	14.76	1.006	1.92	0.18	1.09	0.24	4.00	6.34
1750	Open	3.855	5.06	1.92	12.73	1.008	1.82	0.18	1.05	0.24	4.00	6.34
2000	Open	3.926	5.06	1.97	11.22	1.010	1.77	0.17	1.03	0.24	4.00	6.34
2250	Open	3.746	5.06	2.43	10.14	1.009	1.45	0.18	1.06	0.24	4.00	6.34
					85°C - Aluminum Conductor - Hollow Core Segmental Strand							
2000	Open	3.923	5.06	1.97	11.05	1.010	1.77	0.17	1.03	0.24	4.00	6.34
2250	Open	3.746	5.06	2.43	9.93	1.010	1.45	0.18	1.06	0.24	4.00	6.34
2500	Open	3.825	5.06	2.49	8.96	1.012	1.41	0.18	1.04	0.24	4.00	6.34
2750	Open	3.920	5.06	2.59	8.17	1.014	1.36	0.17	1.02	0.24	4.00	6.34
3000	Open	4.001	5.06	2.66	7.58	1.016	1.32	0.17	0.99	0.24	4.00	6.34

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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 Amps	60 Rho Interface Temp	60 Rho Flux w/ft²	90 Rho Amps	90 Rho Interface Temp	90 Rho Flux w/ft²	120 Rho Amps	120 Rho Interface Temp	120 Rho Flux w/ft²	delta Td for .0027 pf & Rho 60	90	120
						75% LF							
						85°C - Aluminum Conductor - Hollow Core Concentric Strand							
1000	Open	797	53	17.2	717	59	14.2	653	63	12.1	5.8	7.7	9.6
1250	Open	903	53	17.2	810	60	14.1	736	64	12.0	6.0	8.0	10.0
1500	Open	1000	54	17.2	894	60	14.1	811	65	12.0	6.2	8.3	10.4
1750	Open	1091	55	17.2	972	61	14.1	879	65	11.8	6.4	8.6	10.8
2000	Open	1170	55	17.2	1041	61	14.0	940	66	11.8	6.5	8.8	11.0
2250	Open	1273	58	19.6	1116	64	15.6	995	69	12.9	7.7	10.5	13.2
						85°C - Aluminum Conductor - Hollow Core Segmental Strand							
2000	Open	1179	55	17.2	1049	61	14.0	947	66	11.8	6.5	8.8	11.0
2250	Open	1286	58	19.6	1127	64	15.6	1005	69	12.9	7.7	10.5	13.2
2500	Open	1362	59	19.6	1191	65	15.6	1060	69	12.8	7.8	10.7	13.5
2750	Open	1437	59	19.5	1253	65	15.4	1113	69	12.7	8.1	11.0	13.9
3000	Open	1499	60	19.5	1305	66	15.4	1157	70	12.6	8.2	11.2	14.2

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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 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 - Aluminum Conductor - Hollow Core Concentric Strand							
1000	Open	729	58	14.7	641	64	11.7	575	68	9.7	5.8	7.7	9.6
1250	Open	824	59	14.6	722	65	11.6	645	69	9.7	6.0	8.0	10.0
1500	Open	910	59	14.5	795	65	11.6	708	69	9.5	6.2	8.3	10.4
1750	Open	990	60	14.5	861	66	11.4	766	70	9.4	6.4	8.6	10.8
2000	Open	1060	61	14.5	921	67	11.4	817	70	9.3	6.5	8.8	11.0
2250	Open	1144	63	16.3	979	69	12.6	859	73	10.3	7.7	10.5	13.2
						85°C - Aluminum Conductor - Hollow Core Segmental Strand							
2000	Open	1068	60	14.5	928	67	11.4	824	70	9.3	6.5	8.8	11.0
2250	Open	1156	63	16.3	989	69	12.6	868	73	10.3	7.7	10.5	13.2
2500	Open	1221	64	16.2	1043	70	12.5	914	73	10.2	7.8	10.7	13.5
2750	Open	1286	64	16.1	1095	70	12.4	958	74	10.0	8.1	11.0	13.9
3000	Open	1339	65	16.0	1139	70	12.3	994	74	9.9	8.2	11.2	14.2

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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 - Aluminum 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	50.1	42.4	41.1	33.7	34.8	27.8
1750	Open	51.7	43.6	42.2	34.3	35.6	28.4
2000	Open	52.6	44.2	42.8	34.8	36.0	28.7
2250	Open	57.1	47.5	45.6	36.7	37.7	30.0
85°C - Aluminum Conductor - Hollow Core Segmental Strand							
2000	Open	52.5	44.2	42.8	34.8	36.0	28.7
2250	Open	57.1	47.5	45.5	36.7	37.7	30.0
2500	Open	58.1	48.1	46.2	37.1	38.1	30.3
2750	Open	59.2	49.0	46.9	37.6	38.6	30.6
3000	Open	60.1	49.5	47.5	38.0	39.0	30.9

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2560

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 - Aluminum Conductor - Hollow Core Concentric Strand							
1000	Open	3.493	1.64	21.96	1.005	2.14	0.19	2.29	3.44
1250	Open	3.620	1.73	17.62	1.008	2.02	0.19	2.27	3.43
1500	Open	3.728	1.82	14.76	1.010	1.92	0.18	2.26	3.41
1750	Open	3.855	1.92	12.73	1.013	1.82	0.18	2.24	3.40
2000	Open	3.926	1.97	11.22	1.016	1.77	0.17	2.23	3.39
2250	Open	3.746	2.43	10.14	1.015	1.45	0.18	2.26	3.41
		85°C - Aluminum Conductor - Hollow Core Segmental Strand							
2000	Open	3.923	1.97	11.05	1.016	1.77	0.17	2.23	3.39
2250	Open	3.746	2.43	9.93	1.015	1.45	0.18	2.26	3.41
2500	Open	3.825	2.49	8.96	1.018	1.41	0.18	2.25	3.40
2750	Open	3.920	2.59	8.17	1.022	1.36	0.17	2.24	3.39
3000	Open	4.001	2.66	7.58	1.026	1.32	0.17	2.23	3.38

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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
						75% LF							
						85°C - Aluminum Conductor - Hollow Core Concentric Strand							
1000	Open	754	56	15.5	668	62	12.6	601	67	10.5	6.8	9.2	11.5
1250	Open	854	57	15.5	753	63	12.6	675	67	10.4	7.1	9.6	12.1
1500	Open	943	57	15.6	829	64	12.4	741	68	10.3	7.3	9.9	12.5
1750	Open	1027	58	15.5	899	64	12.3	802	69	10.2	7.6	10.3	13.0
2000	Open	1101	59	15.5	962	65	12.3	855	69	10.1	7.7	10.5	13.3
2250	Open	1189	62	17.4	1022	68	13.6	896	72	11.0	9.1	12.6	16.1
						85°C - Aluminum Conductor - Hollow Core Segmental Strand							
2000	Open	1109	59	15.5	969	65	12.3	862	69	10.1	7.7	10.5	13.3
2250	Open	1201	62	17.4	1032	68	13.6	905	72	11.0	9.1	12.6	16.1
2500	Open	1270	62	17.4	1089	68	13.4	953	72	10.9	9.3	12.9	16.5
2750	Open	1338	63	17.3	1143	69	13.3	997	73	10.7	9.5	13.3	17.0
3000	Open	1394	63	17.2	1188	69	13.2	1035	73	10.6	9.7	13.5	17.3

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2562

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 - Aluminum Conductor - Hollow Core Concentric Strand							
1000	Open	680	61	13.0	588	67	10.2	521	71	8.3	6.8	9.2	11.5
1250	Open	767	62	12.9	661	68	10.0	583	72	8.2	7.1	9.6	12.1
1500	Open	845	63	12.8	726	69	9.9	638	72	8.1	7.3	9.9	12.5
1750	Open	917	64	12.8	785	69	9.8	688	73	8.0	7.6	10.3	13.0
2000	Open	982	64	12.7	838	70	9.8	734	73	8.0	7.7	10.5	13.3
2250	Open	1051	67	14.2	883	72	10.7	763	75	8.7	9.1	12.6	16.1
						85°C - Aluminum Conductor - Hollow Core Segmental Strand							
2000	Open	989	64	12.8	844	70	9.8	739	73	8.0	7.7	10.5	13.3
2250	Open	1062	67	14.2	892	72	10.7	771	75	8.7	9.1	12.6	16.1
2500	Open	1121	67	14.1	940	72	10.7	810	76	8.6	9.3	12.9	16.5
2750	Open	1179	68	14.0	985	73	10.5	847	76	8.5	9.5	13.3	17.0
3000	Open	1226	68	13.9	1022	73	10.4	877	76	8.3	9.7	13.5	17.3

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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 - Aluminum Conductor - Hollow Core Concentric Strand							
1000	Open	85.1	71.1	68.9	55.6	57.7	45.8
1250	Open	88.0	73.0	70.8	56.9	58.9	46.6
1500	Open	90.4	74.7	72.3	58.0	60.0	47.3
1750	Open	93.0	76.5	74.0	59.1	61.2	48.1
2000	Open	94.6	77.7	75.0	59.8	61.8	48.6
2250	Open	101.6	82.6	78.9	62.6	64.0	50.4
85°C - Aluminum Conductor - Hollow Core Segmental Strand							
2000	Open	94.5	77.6	74.9	59.7	61.8	48.5
2250	Open	101.6	82.7	78.9	62.6	64.0	50.4
2500	Open	103.1	83.6	79.8	63.2	64.6	50.8
2750	Open	105.0	85.0	80.8	64.0	65.2	51.4
3000	Open	106.3	85.8	81.6	64.5	65.8	51.7

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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%	Re @ 90 Rho & loss factor 100%
		85°C - Aluminum Conductor - Hollow Core Concentric Strand							
1000	Open	3.493	1.64	21.96	1.004	2.14	0.19	2.84	4.33
1250	Open	3.620	1.73	17.62	1.006	2.02	0.19	2.82	4.32
1500	Open	3.728	1.82	14.76	1.008	1.92	0.18	2.81	4.30
1750	Open	3.855	1.92	12.73	1.011	1.82	0.18	2.79	4.29
2000	Open	3.926	1.97	11.22	1.013	1.77	0.17	2.79	4.28
2250	Open	3.746	2.43	10.14	1.012	1.45	0.18	2.81	4.30
		85°C - Aluminum Conductor - Hollow Core Segmental Strand							
2000	Open	3.923	1.97	11.05	1.013	1.77	0.17	2.79	4.28
2250	Open	3.746	2.43	9.93	1.012	1.45	0.18	2.81	4.30
2500	Open	3.825	2.49	8.96	1.015	1.41	0.18	2.80	4.29
2750	Open	3.920	2.59	8.17	1.017	1.36	0.17	2.79	4.28
3000	Open	4.001	2.66	7.58	1.028	1.32	0.17	2.76	4.27

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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 - Aluminum Conductor - Hollow Core Concentric Strand					
1000	Open	603	620	359	433	6.2	5.8
1250	Open	685	705	407	491	6.4	6.0
1500	Open	759	782	450	544	6.5	6.1
1750	Open	829	855	490	594	6.7	6.2
2000	Open	891	919	525	637	6.7	6.3
2250	Open	951	983	544	671	8.0	7.5
		85°C - Aluminum Conductor - Hollow Core Segmental Strand					
2000	Open	897	926	529	642	6.7	6.3
2250	Open	961	994	550	678	8.0	7.5
2500	Open	1019	1055	582	719	8.1	7.6
2750	Open	1078	1116	613	759	8.3	7.7
3000	Open	1127	1168	640	794	8.4	7.8

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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 - Aluminum Conductor - Hollow Core Concentric Strand					
1000	Open	28.9	30.2	13.4	17.3
1250	Open	30.0	31.5	14.0	17.9
1500	Open	31.0	32.5	14.4	18.6
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 - Aluminum Conductor - Hollow Core Segmental Strand					
2000	Open	32.6	34.3	15.2	19.6
2250	Open	34.8	36.7	16.3	21.0
2500	Open	35.4	37.4	16.6	21.4
2750	Open	36.2	38.2	17.0	21.9
3000	Open	36.8	38.9	17.3	22.3

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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 2 fps
		85°C - Aluminum Conductor - Hollow Core Concentric Strand										
1000	Open	3.493	5.05	1.64	21.96	1.000	2.14	0.19	1.47	0.31	0.75	0.52
1250	Open	3.620	5.05	1.73	17.62	1.000	2.02	0.19	1.42	0.31	0.75	0.52
1500	Open	3.728	5.05	1.82	14.75	1.000	1.92	0.18	1.38	0.31	0.74	0.51
1750	Open	3.855	5.05	1.92	12.72	1.000	1.82	0.18	1.34	0.31	0.74	0.51
2000	Open	3.926	5.05	1.97	11.20	1.000	1.77	0.17	1.32	0.31	0.74	0.51
2250	Open	3.746	5.05	2.43	10.14	1.000	1.45	0.18	1.36	0.31	0.74	0.51
		85°C - Aluminum Conductor - Hollow Core Segmental Strand										
2000	Open	3.923	5.05	1.97	11.03	1.000	1.77	0.17	1.32	0.31	0.74	0.51
2250	Open	3.746	5.05	2.43	9.92	1.000	1.45	0.18	1.36	0.31	0.74	0.51
2500	Open	3.825	5.05	2.49	8.95	1.000	1.41	0.18	1.34	0.31	0.73	0.51
2750	Open	3.920	5.05	2.59	8.16	1.000	1.36	0.17	1.31	0.31	0.73	0.51
3000	Open	4.001	5.05	2.66	7.57	1.000	1.32	0.17	1.28	0.31	0.73	0.51

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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 - Aluminum Conductor - Hollow Core Concentric Strand							
1000	Open	745	788	484	587	3.8	3.3
1250	Open	851	901	552	669	3.8	3.3
1500	Open	950	1005	614	745	3.9	3.3
1750	Open	1045	1106	674	817	3.9	3.4
2000	Open	1127	1193	726	880	3.9	3.4
2250	Open	1240	1322	796	976	4.5	3.9
85°C - Aluminum Conductor - Hollow Core Segmental Strand							
2000	Open	1135	1202	731	886	3.9	3.4
2250	Open	1253	1337	805	986	4.5	3.9
2500	Open	1335	1424	856	1049	4.6	3.9
2750	Open	1420	1514	909	1112	4.6	3.9
3000	Open	1491	1590	953	1166	4.6	3.9

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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 - Aluminum 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	8.8	12.1
85°C - Aluminum 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

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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 - Aluminum Conductor - Hollow Core Concentric Strand										
1000	Open	3.493	9.99	1.64	21.96	1.000	2.14	0.19	0.00	0.00	1.05	0.73
1250	Open	3.620	9.99	1.73	17.62	1.000	2.02	0.19	0.00	0.00	1.02	0.71
1500	Open	3.728	9.99	1.82	14.75	1.000	1.92	0.18	0.00	0.00	0.99	0.69
1750	Open	3.855	9.99	1.92	12.72	1.000	1.82	0.18	0.00	0.00	0.96	0.68
2000	Open	3.926	9.99	1.97	11.20	1.000	1.77	0.17	0.00	0.00	0.94	0.67
2250	Open	3.746	9.99	2.43	10.14	1.000	1.45	0.18	0.00	0.00	0.96	0.69
		85°C - Aluminum Conductor - Hollow Core Segmental Strand										
2000	Open	3.923	9.99	1.97	11.03	1.000	1.77	0.17	0.00	0.00	0.94	0.67
2250	Open	3.746	9.99	2.43	9.92	1.000	1.45	0.18	0.00	0.00	0.96	0.69
2500	Open	3.825	9.99	2.49	8.95	1.000	1.41	0.18	0.00	0.00	0.95	0.68
2750	Open	3.920	9.99	2.59	8.16	1.000	1.36	0.17	0.00	0.00	0.92	0.66
3000	Open	4.001	9.99	2.66	7.57	1.000	1.32	0.17	0.00	0.00	0.91	0.65

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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 - Aluminum Conductor - Hollow Core Concentric Strand					
1000	Open	626	646	463	518	5.7	5.3
1250	Open	711	735	525	589	5.9	5.5
1500	Open	789	816	582	653	6.0	5.6
1750	Open	863	893	636	714	6.1	5.7
2000	Open	927	960	683	768	6.2	5.8
2250	Open	997	1035	726	821	7.3	6.8
		85°C - Aluminum Conductor - Hollow Core Segmental Strand					
2000	Open	934	967	688	773	6.2	5.8
2250	Open	1008	1046	734	830	7.3	6.8
2500	Open	1070	1111	778	881	7.4	6.8
2750	Open	1131	1176	822	932	7.5	7.0
3000	Open	1183	1231	859	975	7.6	7.0

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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 - Aluminum Conductor - Hollow Core Concentric Strand					
1000	Open	10.2	10.8	6.3	7.5
1250	Open	10.6	11.3	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 - Aluminum 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	13.2	14.1	8.2	9.9

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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 - Aluminum Conductor - Hollow Core Concentric Strand										
1000	Open	3.493	5.05	1.64	21.96	1.000	2.14	0.19	1.17	0.31	0.75	0.51
1250	Open	3.620	5.05	1.73	17.62	1.000	2.02	0.19	1.13	0.31	0.75	0.51
1500	Open	3.728	5.05	1.82	14.75	1.000	1.92	0.18	1.10	0.31	0.75	0.51
1750	Open	3.855	5.05	1.92	12.72	1.000	1.82	0.18	1.06	0.31	0.74	0.51
2000	Open	3.926	5.05	1.97	11.20	1.000	1.77	0.17	1.04	0.31	0.74	0.51
2250	Open	3.746	5.05	2.43	10.14	1.000	1.45	0.18	1.07	0.31	0.74	0.51
		85°C - Aluminum Conductor - Hollow Core Segmental Strand										
2000	Open	3.923	5.05	1.97	11.03	1.000	1.77	0.17	1.04	0.31	0.74	0.51
2250	Open	3.746	5.05	2.43	9.92	1.000	1.45	0.18	1.07	0.31	0.74	0.51
2500	Open	3.825	5.05	2.49	8.95	1.000	1.41	0.18	1.05	0.31	0.74	0.51
2750	Open	3.920	5.05	2.59	8.16	1.000	1.36	0.17	1.02	0.31	0.73	0.51
3000	Open	4.001	5.05	2.66	7.57	1.000	1.32	0.17	1.00	0.31	0.73	0.51

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