MV-90 5 - 35 kV Single Conductors

Description

Copper or aluminum stranded, thermo set insulated.

Contruction

Conductor
Copper or aluminum stranded, thermo set insulated.
Conductor Shield
Cross linked polyethylene semiconductor.
Insulation
Cross linked polyethylene XLPE.
Insulation shield
Cross linked polyethylene removable semiconductor
Insulation and shields are applied by true triple extrusion process.
Metallic shield
Copper tape helically and overlapped applied over insulation shield, 2.5 mils (0.0635mm) thickness.
Jacket
Flame retardant polyvinyl chloride PVC.
Options
EPR or XLPE-TR (Tree retardant XLPE).
Copper wires metallic shield.
Polyethylene Jacket, PVC SR (Sunlight Resistant) Jacket, PVC Tray Cable type jacket.
Moisture barrier against longitudinally migration.
Armor for Direct Burial

Characteristics

Operating Temperature
Normal continuous operation 90°C for wet or dry locations (105°C optional).
Overload 130°C.
Short circuit 250°C.

Rated Voltage
5, 8, 15, 25 and 35 kV.

Insulation Level
100% (133% and 173% optional).

Applications

Distribution of electric energy at Medium Voltage, installed at air, underground ducts, raceways, direct buried or tray cables.

Standards

CENTELSA's 5-35 kV single conductors are manufactured in accordance with the following standards:
ASTM B496, NTC-ICONTEC 2187. Compact round concentric lay stranded Copper Conductors.
ASTM B400, NTC-ICONTEC 4334. Compact round concentric lay stranded Aluminum 1350 Conductors.
UL 1072. Medium Voltage Power Cables MV90.
ICEA S-97-682 Standard for Utility Shielded Power Cables Rated 5000 To 46000 Volts.
AEIC CS8. Specification for Extruded Dielectric, Shielded Power Cables Rated 5 through 46 kV.

Certifications

CENTELSA's 5-35 kV single conductors are certified by:
UL 1072. File E167359.
ICONTEC (Colombia). NTC 2186 standard
CIDET (Colombia). Cert. 00412. 15 kV Medium Voltage Copper, XLPE.
CIDET (Colombia). Cert. 00413. 35 kV Medium Voltage Copper, XLPE.
CIDET (Colombia). Cert. 00414. 15 kV Medium Voltage Copper, EPR.
CIDET (Colombia). Cert. 00415. 35 kV Medium Voltage Copper, EPR.

Note: Configurations and sizes herein not specified are available upon request.

MV-90 5 kV Single Conductors, 90°C (International Unit System) 100% Insulation Level

Standards: UL 1072. Medium Voltage Power Cables MV90, ICEA S-97-682
Standard for Utility Shielded Power Cables Rated 5000 To 46000 Volts.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (mm^2)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	JACKET THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)		DC RESISTANT AT 20°C[1] (ohm/km)		INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
							COPPER	ALUMINUM	COPPER	ALUMINUM		
8	3.40	8.4	2.29	8.86	1.14	13.20	245	192	2.10	3.43	0.4010	15795
6	4.29	13.3	2.29	9.75	1.52	14.88	333	249	1.32	2.16	0.3835	13740
4	5.41	21.2	2.29	10.87	1.52	16.00	428	294	0.831	1.36	0.3660	11824
2	6.81	33.6	2.29	12.27	1.52	17.40	571	359	0.523	0.854	0.3487	10081
1	7.59	42.4	2.29	13.05	1.52	18.18	665	398	0.415	0.678	0.3372	9319
1/0	8.53	53.5	2.29	13.99	1.52	19.12	785	448	0.329	0.537	0.3284	8544
2/0	9.55	67.4	2.29	15.01	1.52	20.14	933	508	0.261	0.426	0.3199	7838
3/0	10.74	85.0	2.29	16.20	2.03	22.35	1169	632	0.207	0.338	0.3111	7150
4/0	12.07	107.2	2.29	17.53	2.03	23.68	1401	725	0.164	0.268	0.3023	6512
250	13.21	126.7	2.29	18.91	2.03	25.06	1615	816	0.139	0.227	0.2945	5961
300	14.48	152.0	2.29	20.18	2.03	26.33	1875	916	0.116	0.189	0.2875	5531
350	15.65	177.3	2.29	21.35	2.03	27.50	2133	1014	0.0992	0.162	0.2817	5187
400	16.74	202.7	2.29	22.44	2.03	28.59	2389	1111	0.0868	0.142	0.2766	4902
450	17.78	228.0	2.29	23.48	2.03	29.63	2644	1206	0.0771	0.126	0.2721	4659
500	18.69	253.4	2.29	24.39	2.03	30.54	2896	1298	0.0694	0.113	0.2683	4465
600	20.65	304.0	2.29	26.57	2.03	33.30	3452	1534	0.0578	0.0945	0.2604	4060
750	23.06	380.0	2.29	28.98	2.03	35.71	4203	1806	0.0463	0.0756	0.2521	3691
1000	26.92	506.7	2.29	32.84	2.03	39.57	5452	2255	0.0347	0.0567	0.2404	3221

Notes:
1. DC resistance calculated based on a 17.241 ohm-mm2/km resistivity for cooper and 28.172 ohm-mm²/km for aluminum.
2. Inductive and capacitive reactance at 60 Hz and a 20 cm separation between phases in flat configuration.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

MV-90 5 kV Single Conductors, 90°C
100% Insulation Level

Standards: UL 1072. Medium Voltage Power Cables MV90, ICEA S-97-682
Standard for Utility Shielded Power Cables Rated 5000 To 46000 Volts.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (mm^2)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	JACKET THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)		DC RESISTANT AT 20°C[1] (ohm/km)		INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
							COPPER	ALUMINUM	COPPER	ALUMINUM		
8	134	0.0130	90	349	45	520	164	129	0.641	1.05	0.6454	9815
6	169	0.0206	90	384	60	586	224	167	0.403	0.658	0.6172	8538
4	213	0.0328	90	428	60	630	287	198	0.253	0.414	0.5890	7347
2	268	0.0521	90	483	60	685	384	241	0.159	0.260	0.5611	6264
1	299	0.0657	90	514	60	716	447	267	0.126	0.207	0.5427	5791
1/0	336	0.0829	90	551	60	753	528	301	0.100	0.164	0.5285	5309
2/0	376	0.105	90	591	60	793	627	341	0.0795	0.130	0.5148	4870
3/0	423	0.132	90	638	80	880	786	425	0.0630	0.103	0.5006	4443
4/0	475	0.166	90	690	80	932	942	487	0.0500	0.0817	0.4864	4046
250	520	0.196	90	744	80	987	1085	548	0.0423	0.0691	0.4739	3704
300	570	0.236	90	794	80	1037	1260	616	0.0353	0.0576	0.4627	3437
350	616	0.275	90	841	80	1083	1434	682	0.0302	0.0494	0.4533	3223
400	659	0.314	90	883	80	1126	1606	746	0.0264	0.0432	0.4452	3046
450	700	0.353	90	924	80	1167	1777	810	0.0235	0.0384	0.4378	2895
500	736	0.393	90	960	80	1202	1946	872	0.0212	0.0346	0.4318	2774
600	813	0.471	90	1046	80	1311	2320	1031	0.0176	0.0288	0.4191	2523
750	908	0.589	90	1141	80	1406	2825	1214	0.0141	0.0230	0.4057	2293
1000	1060	0.785	90	1293	80	1558	3664	1515	0.0106	0.0173	0.3869	2002

Notes:
1. DC resistance calculated based on a 10.371 ohm-cmil/ft resistivity for cooper and 16.946 ohm-cmil/ft for aluminum.
2. Inductive and capacitive reactance at 60 Hz and a 7.9 inches separation between phases in flat configuration.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

MV-90 8 kV Single Conductors, 90°C (International Unit System) 100% Insulation Level

Standards: UL 1072. Medium Voltage Power Cables MV90, ICEA S-97-682
Standard for Utility Shielded Power Cables Rated 5000 To 46000 Volts.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (mm^2)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	JACKET THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)		DC RESISTANT AT 20°C[1] (ohm/km)		INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
							COPPER	ALUMINUM	COPPER	ALUMINUM		
6	4.29	13.3	2.92	11.05	1.52	16.18	368	285	1.32	2.16	0.3835	16338
4	5.41	21.2	2.92	12.17	1.52	17.30	465	332	0.831	1.36	0.3660	14169
2	6.81	33.6	2.92	13.57	1.52	18.70	611	399	0.523	0.854	0.3487	12171
1	7.59	42.4	2.92	14.35	1.52	19.48	707	440	0.415	0.678	0.3372	11291
1/0	8.53	53.5	2.92	15.29	1.52	20.42	829	492	0.329	0.537	0.3284	10388
2/0	9.55	67.4	2.92	16.31	2.03	22.46	1030	605	0.261	0.426	0.3199	9562
3/0	10.74	85.0	2.92	17.50	2.03	23.65	1220	683	0.207	0.338	0.3111	8752
4/0	12.07	107.2	2.92	18.83	2.03	24.98	1455	778	0.164	0.268	0.3023	7997
250	13.21	126.7	2.92	20.21	2.03	26.36	1671	872	0.139	0.227	0.2945	7341
300	14.48	152.0	2.92	21.48	2.03	27.63	1934	975	0.116	0.189	0.2875	6827
350	15.65	177.3	2.92	22.65	2.03	28.80	2194	1075	0.0992	0.162	0.2817	6414
400	16.74	202.7	2.92	23.74	2.03	29.89	2452	1173	0.0868	0.142	0.2766	6071
450	17.78	228.0	2.92	24.78	2.03	30.93	2709	1270	0.0771	0.126	0.2721	5778
500	18.69	253.4	2.92	25.69	2.03	32.42	2999	1400	0.0694	0.113	0.2683	5543
600	20.65	304.0	2.92	27.87	2.03	34.60	3524	1606	0.0578	0.0945	0.2604	5052
750	23.06	380.0	2.92	30.28	2.03	37.01	4280	1882	0.0463	0.0756	0.2521	4601
1000	26.92	506.7	2.92	34.14	2.03	40.87	5535	2338	0.0347	0.0567	0.2404	4027

Notes:
1. DC resistance calculated based on a 17.241 ohm-mm2/km resistivity for cooper and 28.172 ohm-mm²/km for aluminum.
2. Inductive and capacitive reactance at 60 Hz and a 20 cm separation between phases in flat configuration.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

MV-90 8 kV Single Conductors, 90°C 100% Insulation Level

Standards: UL 1072. Medium Voltage Power Cables MV90, ICEA S-97-682
Standard for Utility Shielded Power Cables Rated 5000 To 46000 Volts.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (mm^2)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	JACKET THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)		DC RESISTANT AT 20°C[1] (ohm/km)		INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
							COPPER	ALUMINUM	COPPER	ALUMINUM		
6	169	0.0206	115	435	60	637	248	191	0.403	0.658	0.6172	10152
4	213	0.0328	115	479	60	681	313	223	0.253	0.414	0.5890	8804
2	268	0.0521	115	534	60	736	411	268	0.159	0.260	0.5611	7563
1	299	0.0657	115	565	60	767	475	295	0.126	0.207	0.5427	7016
1/0	336	0.0829	115	602	60	804	557	330	0.100	0.164	0.5285	6455
2/0	376	0.105	115	642	80	884	692	406	0.0795	0.130	0.5148	5942
3/0	423	0.132	115	689	80	931	820	459	0.0630	0.103	0.5006	5438
4/0	475	0.166	115	741	80	984	978	523	0.0500	0.0817	0.4864	4969
250	520	0.196	115	796	80	1038	1123	586	0.0423	0.0691	0.4739	4562
300	570	0.236	115	846	80	1088	1300	655	0.0353	0.0576	0.4627	4242
350	616	0.275	115	892	80	1134	1474	722	0.0302	0.0494	0.4533	3985
400	659	0.314	115	935	80	1177	1648	788	0.0264	0.0432	0.4452	3773
450	700	0.353	115	976	80	1218	1820	854	0.0235	0.0384	0.4378	3590
500	736	0.393	115	1011	80	1276	2015	941	0.0212	0.0346	0.4318	3444
600	813	0.471	115	1097	80	1362	2368	1079	0.0176	0.0288	0.4191	3139
750	908	0.589	115	1192	80	1457	2876	1265	0.0141	0.0230	0.4057	2859
1000	1060	0.785	115	1344	80	1609	3720	1572	0.0106	0.0173	0.3869	2502

Notes:
1. DC resistance calculated based on a 10.371 ohm-cmil/ft resistivity for cooper and 16.946 ohm-cmil/ft for aluminum.
2. Inductive and capacitive reactance at 60 Hz and a 7.9 inches separation between phases in flat configuration.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

MV-90 15 kV Single Conductors, 90°C (International Unit System) 100% Insulation Level

Standards: UL 1072. Medium Voltage Power Cables MV90, ICEA S-97-682
Standard for Utility Shielded Power Cables Rated 5000 To 46000 Volts.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (mm^2)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	JACKET THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)		DC RESISTANT AT 20°C[1] (ohm/km)		INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
							COPPER	ALUMINUM	COPPER	ALUMINUM		
2	6.81	33.6	4.45	16.63	2.03	22.78	768	556	0.523	0.854	0.3487	16393
1	7.59	42.4	4.45	17.41	2.03	23.56	869	601	0.415	0.678	0.3372	15303
1/0	8.53	53.5	4.45	18.35	2.03	24.50	997	660	0.329	0.537	0.3284	14175
2/0	9.55	67.4	4.45	19.37	2.03	25.52	1154	729	0.261	0.426	0.3199	13131
3/0	10.74	85.0	4.45	20.56	2.03	26.71	1349	813	0.207	0.338	0.3111	12097
4/0	12.07	107.2	4.45	21.89	2.03	28.04	1590	914	0.164	0.268	0.3023	11123
250	13.21	126.7	4.45	23.27	2.03	29.42	1813	1013	0.139	0.227	0.2945	10268
300	14.48	152.0	4.45	24.54	2.03	30.69	2081	1122	0.116	0.189	0.2875	9592
350	15.65	177.3	4.45	25.71	2.03	32.44	2383	1264	0.0992	0.162	0.2817	9044
400	16.74	202.7	4.45	26.80	2.03	33.53	2647	1368	0.0868	0.142	0.2766	8588
450	17.78	228.0	4.45	27.84	2.03	34.57	2909	1471	0.0771	0.126	0.2721	8195
500	18.69	253.4	4.45	28.75	2.03	35.48	3168	1569	0.0694	0.113	0.2683	7879
600	20.65	304.0	4.45	30.93	2.03	37.66	3703	1785	0.0578	0.0945	0.2604	7214
750	23.06	380.0	4.45	33.34	2.03	40.07	4469	2071	0.0463	0.0756	0.2521	6600
1000	26.92	506.7	4.45	37.20	2.79	45.50	5900	2704	0.0347	0.0567	0.2404	5809

Notes:
1. DC resistance calculated based on a 17.241 ohm-mm2/km resistivity for cooper and 28.172 ohm-mm^2/km for aluminum.
2. Inductive and capacitive reactance at 60 Hz and a 20 cm separation between phases in flat configuration.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

MV-90 15 kV Single Conductors, 90°C 100% Insulation Level

Standards: UL 1072. Medium Voltage Power Cables MV90, ICEA S-97-682
Standard for Utility Shielded Power Cables Rated 5000 To 46000 Volts.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (mm^2)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	JACKET THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)		DC RESISTANT AT 20°C[1] (ohm/km)		INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
							COPPER	ALUMINUM	COPPER	ALUMINUM		
2	268	0.0521	175	655	80	897	516	373	0.159	0.260	0.5611	10186
1	299	0.0657	175	685	80	928	584	404	0.126	0.207	0.5427	9509
1/0	336	0.0829	175	722	80	965	670	443	0.100	0.164	0.5285	8808
2/0	376	0.105	175	763	80	1005	776	490	0.0795	0.130	0.5148	8160
3/0	423	0.132	175	809	80	1052	907	546	0.0630	0.103	0.5006	7517
4/0	475	0.166	175	862	80	1104	1069	614	0.0500	0.0817	0.4864	6912
250	520	0.196	175	916	80	1158	1218	681	0.0423	0.0691	0.4739	6381
300	570	0.236	175	966	80	1208	1398	754	0.0353	0.0576	0.4627	5960
350	616	0.275	175	1012	80	1277	1601	849	0.0302	0.0494	0.4533	5620
400	659	0.314	175	1055	80	1320	1779	919	0.0264	0.0432	0.4452	5337
450	700	0.353	175	1096	80	1361	1955	988	0.0235	0.0384	0.4378	5092
500	736	0.393	175	1132	80	1397	2129	1055	0.0212	0.0346	0.4318	4896
600	813	0.471	175	1218	80	1483	2488	1199	0.0176	0.0288	0.4191	4483
750	908	0.589	175	1313	80	1578	3003	1392	0.0141	0.0230	0.4057	4101
1000	1060	0.785	175	1465	110	1791	3965	1817	0.0106	0.0173	0.3869	3610

Notes:
1. DC resistance calculated based on a 10.371 ohm-cmil/ft resistivity for cooper and 16.946 ohm-cmil/ft for aluminum.
2. Inductive and capacitive reactance at 60 Hz and a 7.9 inches separation between phases in flat configuration.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

MV-90 25 kV Single Conductors, 90°C (International Unit System) 100% Insulation Level

Standards: UL 1072. Medium Voltage Power Cables MV90, ICEA S-97-682
Standard for Utility Shielded Power Cables Rated 5000 To 46000 Volts.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (mm^2)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	JACKET THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)		DC RESISTANT AT 20°C[1] (ohm/km)		INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
							COPPER	ALUMINUM	COPPER	ALUMINUM		
1	7.59	42.4	6.60	21.67	2.03	27.82	1052	785	0.415	0.678	0.3372	19847
1/0	8.53	53.5	6.60	22.61	2.03	28.76	1186	849	0.329	0.537	0.3284	18509
2/0	9.55	67.4	6.60	23.63	2.03	29.78	1350	924	0.261	0.426	0.3199	17258
3/0	10.74	85.0	6.60	24.82	2.03	30.97	1552	1016	0.207	0.338	0.3111	16006
4/0	12.07	107.2	6.60	26.15	2.03	32.88	1838	1162	0.164	0.268	0.3023	14814
250	13.21	126.7	6.60	27.53	2.03	34.26	2071	1271	0.139	0.227	0.2945	13758
300	14.48	152.0	6.60	28.80	2.03	35.53	2348	1389	0.116	0.189	0.2875	12915
350	15.65	177.3	6.60	29.97	2.03	36.70	2622	1503	0.0992	0.162	0.2817	12227
400	16.74	202.7	6.60	31.06	2.03	37.79	2892	1614	0.0868	0.142	0.2766	11651
450	17.78	228.0	6.60	32.10	2.03	38.83	3161	1723	0.0771	0.126	0.2721	11150
500	18.69	253.4	6.60	33.01	2.03	39.74	3425	1827	0.0694	0.113	0.2683	10747
600	20.65	304.0	6.60	35.19	2.79	43.49	4125	2207	0.0578	0.0945	0.2604	9893
750	23.06	380.0	6.60	37.60	2.79	45.90	4915	2518	0.0463	0.0756	0.2521	9096
1000	26.92	506.7	6.60	41.46	2.79	50.62	6309	3112	0.0347	0.0567	0.2404	8060

Notes:
1. DC resistance calculated based on a 17.241 ohm-mm2/km resistivity for cooper and 28.172 ohm-mm²/km for aluminum.
2. Inductive and capacitive reactance at 60 Hz and a 20 cm separation between phases in flat configuration.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

MV-90 25 kV Single Conductors, 90°C 100% Insulation Level

Standards: UL 1072. Medium Voltage Power Cables MV90, ICEA S-97-682
Standard for Utility Shielded Power Cables Rated 5000 To 46000 Volts.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (mm^2)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	JACKET THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)		DC RESISTANT AT 20°C[1] (ohm/km)		INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
							COPPER	ALUMINUM	COPPER	ALUMINUM		
1	299	0.0657	260	853	80	1095	707	527	0.126	0.207	0.5427	12333
1/0	336	0.0829	260	890	80	1132	797	571	0.100	0.164	0.5285	11501
2/0	376	0.105	260	930	80	1173	907	621	0.0795	0.130	0.5148	10724
3/0	423	0.132	260	977	80	1219	1043	683	0.0630	0.103	0.5006	9946
4/0	475	0.166	260	1030	80	1295	1235	781	0.0500	0.0817	0.4864	9205
250	520	0.196	260	1084	80	1349	1391	854	0.0423	0.0691	0.4739	8549
300	570	0.236	260	1134	80	1399	1578	933	0.0353	0.0576	0.4627	8025
350	616	0.275	260	1180	80	1445	1762	1010	0.0302	0.0494	0.4533	7598
400	659	0.314	260	1223	80	1488	1944	1085	0.0264	0.0432	0.4452	7240
450	700	0.353	260	1264	80	1529	2125	1158	0.0235	0.0384	0.4378	6929
500	736	0.393	260	1300	80	1565	2302	1228	0.0212	0.0346	0.4318	6678
600	813	0.471	260	1385	110	1712	2772	1483	0.0176	0.0288	0.4191	6147
750	908	0.589	260	1480	110	1807	3303	1692	0.0141	0.0230	0.4057	5652
1000	1060	0.785	260	1632	110	1993	4240	2091	0.0106	0.0173	0.3869	5008

Notes:
1. DC resistance calculated based on a 10.371 ohm-cmil/ft resistivity for cooper and 16.946 ohm-cmil/ft for aluminum.
2. Inductive and capacitive reactance at 60 Hz and a 7.9 inches separation between phases in flat configuration.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

MV-90 35 kV Single conductors, 90°C (International Unit System) 100% Insulation Level

Standards: UL 1072. Medium Voltage Power Cables MV90, ICEA S-97-682 Standard for Utility Shielded Power Cables Rated 5000 To 46000 Volts.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (mm^2)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	JACKET THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)		DC RESISTANT AT 20°C[1] (ohm/km)		INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
							COPPER	ALUMINUM	COPPER	ALUMINUM		
1/0	8.53	53.5	8.76	26.97	2.03	33.70	1445	1108	0.329	0.537	0.3284	22170
2/0	9.55	67.4	8.76	27.99	2.03	34.72	1616	1190	0.261	0.426	0.3199	20773
3/0	10.74	85.0	8.76	29.18	2.03	35.91	1827	1291	0.207	0.338	0.3111	19366
4/0	12.07	107.2	8.76	30.51	2.03	37.24	2086	1410	0.164	0.268	0.3023	18016
250	13.21	126.7	8.76	31.89	2.03	38.62	2327	1528	0.139	0.227	0.2945	16810
300	14.48	152.0	8.76	33.16	2.03	39.89	2612	1653	0.116	0.189	0.2875	15841
350	15.65	177.3	8.76	34.33	2.03	41.06	2893	1775	0.0992	0.162	0.2817	15047
400	16.74	202.7	8.76	35.42	2.03	42.15	3171	1892	0.0868	0.142	0.2766	14378
450	17.78	228.0	8.76	36.46	2.03	43.19	3447	2008	0.0771	0.126	0.2721	13794
500	18.69	253.4	8.76	37.37	2.03	44.10	3716	2118	0.0694	0.113	0.2683	13323
600	20.65	304.0	8.76	39.55	2.79	48.71	4526	2608	0.0578	0.0945	0.2604	12318
750	23.06	380.0	8.76	41.96	2.79	51.12	5335	2937	0.0463	0.0756	0.2521	11374
1000	26.92	506.7	8.76	45.82	2.79	54.98	6675	3479	0.0347	0.0567	0.2404	10136

Notes:
1. DC resistance calculated based on a 17.241 ohm-mm2/km resistivity for cooper and 28.172 ohm-mm^2/km for aluminum.
2. Inductive and capacitive reactance at 60 Hz and a 20 cm separation between phases in flat configuration.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

MV-90 35 kV Single conductors, 90°C 100% Insulation Level

Standards: UL 1072. Medium Voltage Power Cables MV90, ICEA S-97-682 Standard for Utility Shielded Power Cables Rated 5000 To 46000 Volts.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (mm^2)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	JACKET THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)		DC RESISTANT AT 20°C[1] (ohm/km)		INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
							COPPER	ALUMINUM	COPPER	ALUMINUM		
1/0	336	0.0829	345	1062	80	1327	971	744	0.100	0.164	0.5285	13776
2/0	376	0.105	345	1102	80	1367	1086	800	0.0795	0.130	0.5148	12908
3/0	423	0.132	345	1149	80	1414	1228	867	0.0630	0.103	0.5006	12034
4/0	475	0.166	345	1201	80	1466	1402	947	0.0500	0.0817	0.4864	11195
250	520	0.196	345	1256	80	1521	1564	1027	0.0423	0.0691	0.4739	10446
300	570	0.236	345	1306	80	1571	1756	1111	0.0353	0.0576	0.4627	9844
350	616	0.275	345	1352	80	1617	1945	1193	0.0302	0.0494	0.4533	9350
400	659	0.314	345	1394	80	1660	2131	1272	0.0264	0.0432	0.4452	8934
450	700	0.353	345	1435	80	1700	2316	1350	0.0235	0.0384	0.4378	8572
500	736	0.393	345	1471	80	1736	2498	1423	0.0212	0.0346	0.4318	8279
600	813	0.471	345	1557	110	1918	3042	1753	0.0176	0.0288	0.4191	7654
750	908	0.589	345	1652	110	2013	3585	1974	0.0141	0.0230	0.4057	7068
1000	1060	0.785	345	1804	110	2164	4486	2338	0.0106	0.0173	0.3869	6298

Notes:
1. DC resistance calculated based on a 10.371 ohm-cmil/ft resistivity for cooper and 16.946 ohm-cmil/ft for aluminum.
2. Inductive and capacitive reactance at 60 Hz and a 7.9 inches separation between phases in flat configuration.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

46 - 69 kV Single Conductors

Description

Copper or aluminum stranded, thermo set insulated

Construction

Conductor
Soft Copper or 1350-H19 aluminum, compact stranded.
Conductor Shield
Cross linked polyethylene semiconductor.
Insulation
Cross linked polyethylene XLPE.
Insulation shield
Cross linked polyethylene removable semiconductor.
Insulation and shields are applied by true triple extrusion process.
Metallic shield
Copper tape helically and overlapped applied over insulation shield, 2.5 mils (0.0635mm) thickness.
Jacket
Flame retardant polyvinyl chloride PVC.
Options
EPR or XLPE-TR (Tree retardant XLPE).
Copper wires metallic shield.
Polyethylene Jacket, PVC SR (Sunlight Resistant) Jacket, PVC Tray Cable type jacket.
Moisture barrier against longitudinally migration.
Armor for Direct Burial.

Characteristics

Operating Temperature
Normal continuous operation 90°C for wet or dry locations (105°C optional)
Overload 130°C
Short circuit 250°C

Rated Voltage
45 and 69 kV
Insulation Level
100% (133% and 173% optional only for 46 kV)

Applications

Distribution of electric energy at 46 and 69 kV, installed at air, underground ducts, raceways, direct buried or tray cables.

Standards

CENTELSA's 46-69 kV single conductors are manufactured in accordance with the following standards:
ASTM B496, NTC-ICONTEC 2187. Compact round concentric lay stranded Copper Conductors.
ASTM B400, NTC-ICONTEC 4334. Compact round concentric lay stranded Aluminum 1350 Conductors.
AEIC CS6. Specification for Ethylene Propylene Rubber Insulated Shielded Power Cables Rated 5 through 69 kV.
AEIC CS7. Specification for Cross Linked Polyethylene Insulated Shielded Power Cables Rated 69 through 138 kV.

Certifications

CENTELSA's 46 kV conductors are certified by CTL Laboratories.

Note: Configurations and sizes herein not specified are available upon request.

46 kV Single conductors, 90°C (International Unit System) 100% Insulation Level

Standards: AEIC CS8 Specification for Extruded Dielectric, Shielded Power Cables Rated 5 through 46 kV.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (mm^2)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	JACKET THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)		DC RESISTANT AT 20°C[1] (ohm/km)		INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
							COPPER	ALUMINUM	COPPER	ALUMINUM		
4/0	12.07	107.2	11.30	35.63	2.79	43.93	2565	1889	0.164	0.268	0.3023	21236
250	13.21	126.7	11.30	37.01	2.79	45.31	2821	2022	0.139	0.227	0.2945	19901
300	14.48	152.0	11.30	38.28	2.79	47.44	3199	2240	0.116	0.189	0.2875	18822
350	15.65	177.3	11.30	39.45	2.79	48.61	3495	2376	0.0992	0.162	0.2817	17932
400	16.74	202.7	11.30	40.54	2.79	49.70	3786	2508	0.0868	0.142	0.2766	17180
450	17.78	228.0	11.30	41.58	2.79	50.74	4075	2636	0.0771	0.126	0.2721	16522
500	18.69	253.4	11.30	42.49	2.79	51.65	4356	2758	0.0694	0.113	0.2683	15988
600	20.65	304.0	11.30	44.67	2.79	53.83	4945	3027	0.0578	0.0945	0.2604	14845
750	23.06	380.0	11.30	47.08	2.79	56.24	5772	3374	0.0463	0.0756	0.2521	13764
1000	26.92	506.7	11.30	50.94	2.79	60.10	7141	3944	0.0347	0.0567	0.2404	12335

Notes:
1. DC resistance calculated based on a 17.241 ohm-mm2/km resistivity for cooper and 28.172 ohm-mm^2/km for aluminum.
2. Inductive and capacitive reactance at 60 Hz and a 20 cm separation between phases in flat configuration.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

46 kV Single conductors, 90°C 100% Insulation Level

Standards: AEIC CS8 Specification for Extruded Dielectric, Shielded Power Cables Rated 5 through 46 kV.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (mm^2)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	JACKET THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)		DC RESISTANT AT 20°C[1] (ohm/km)		INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
							COPPER	ALUMINUM	COPPER	ALUMINUM		
4/0	475	0.166	445	1403	110	1729	1724	1269	0.0500	0.0817	0.4864	13196
250	520	0.196	445	1457	110	1784	1896	1359	0.0423	0.0691	0.4739	12366
300	570	0.236	445	1507	110	1868	2150	1505	0.0353	0.0576	0.4627	11696
350	616	0.275	445	1553	110	1914	2349	1597	0.0302	0.0494	0.4533	11143
400	659	0.314	445	1596	110	1957	2544	1685	0.0264	0.0432	0.4452	10676
450	700	0.353	445	1637	110	1998	2738	1772	0.0235	0.0384	0.4378	10267
500	736	0.393	445	1673	110	2033	2927	1853	0.0212	0.0346	0.4318	9935
600	813	0.471	445	1759	110	2119	3323	2034	0.0176	0.0288	0.4191	9225
750	908	0.589	445	1854	110	2214	3879	2268	0.0141	0.0230	0.4057	8553
1000	1060	0.785	445	2006	110	2366	4799	2651	0.0106	0.0173	0.3869	7665

Notes:
1. DC resistance calculated based on a 10.371 ohm-cmil/ft resistivity for cooper and 16.946 ohm-cmil/ft for aluminum.
2. Inductive and capacitive reactance at 60 Hz and a 7.9 inches separation between phases in flat configuration.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

69 kV Single conductors, 90°C (International Unit System) 100% Insulation Level

Standards: AEIC CS7 Specification for Cross Linked Polyethylene Insulated Shielded Power Cables Rated 69 through 138 kV, NTC 3599.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (mm^2)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	JACKET THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)		DC RESISTANT AT 20°C[1] (ohm/km)		INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
							COPPER	ALUMINUM	COPPER	ALUMINUM		
500	18.69	253.4	16.51	53.15	2.79	62.31	5318	3719	0.0694	0.113	0.2683	20509
600	20.65	304.0	16.51	55.37	2.79	64.53	5945	4027	0.0578	0.0945	0.2604	19151
750	23.06	380.0	16.51	57.78	2.79	66.94	6809	4411	0.0463	0.0756	0.2521	17879
1000	26.92	506.7	16.51	61.64	3.56	72.38	8496	5299	0.0347	0.0567	0.2404	16175

Notes:
1. DC resistance calculated based on a 17.241 ohm-mm2/km resistivity for cooper and 28.172 ohm-mm^2/km for aluminum.
2. Inductive and capacitive reactance at 60 Hz and a 20 cm separation between phases in flat configuration.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

69 kV Single conductors, 90°C 100% Insulation Level

Standards: AEIC CS7 Specification for Cross Linked Polyethylene Insulated Shielded Power Cables Rated 69 through 138 kV, NTC 3599.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (mm^2)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	JACKET THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)		DC RESISTANT AT 20°C[1] (ohm/km)		INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
							COPPER	ALUMINUM	COPPER	ALUMINUM		
500	736	0.393	650	2093	110	2453	3574	2500	0.0212	0.0346	0.4318	12744
600	813	0.471	650	2180	110	2540	3995	2706	0.0176	0.0288	0.4191	11900
750	908	0.589	650	2275	110	2635	4576	2965	0.0141	0.0230	0.4057	11110
1000	1060	0.785	650	2427	140	2850	5709	3561	0.0106	0.0173	0.3869	10051

Notes:
1. DC resistance calculated based on a 10.371 ohm-cmil/ft resistivity for cooper and 16.946 ohm-cmil/ft for aluminum.
2. Inductive and capacitive reactance at 60 Hz and a 7.9 inches separation between phases in flat configuration.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

6 - 30 kV Single Conductors

Description

Copper or aluminum stranded, thermo set insulated

Construction

Conductor
Soft Copper or 1350-H19 aluminum, compact stranded.
Conductor Shield
Cross linked polyethylene semiconductor.
Insulation
Cross linked polyethylene XLPE.
Insulation shield
Cross linked polyethylene removable semiconductor.
Insulation and shields are applied by true triple extrusion process.
Metallic shield
Copper tape helically and overlapped applied over insulation shield, 2.5 mils (0.0635mm) thickness.
Jacket
Flame retardant polyvinyl chloride PVC.
Options
EPR or XLPE-TR (Tree retardant XLPE)
Copper wires metallic shield.
Polyethylene Jacket, PVC SR (Sunlight Resistant) Jacket, PVC Tray Cable type jacket.
Moisture barrier against longitudinally migration.
Armor for Direct Burial.

Characteristics

Operating Temperature
Normal continuous operation 90°C for wet or dry locations (105°C optional)
Overload 130°C
Short circuit 250°C

Rated Operating Voltage

6, 10, 15, 20 & 30 kV

Applications

Distribution of electric energy at Medium Voltage, installed at air, underground ducts, raceways, direct buried or tray cables.

Standards

CENTELSA's 6-30 kV single conductors are manufactured in accordance with the following standards:
IEC 60228 Conductors for insulated cables.
IEC 60502-2. Power Cables with extruded insulation for voltages form 6 to 30 kV.

Note: Configurations and sizes herein not specified are available upon request.

3.6/6 (7.2) kV[1] Single conductors, 90°C

Standards: IEC 60502-2. Power Cables with extruded insulation for voltages from 6 to 30 kV.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (mm^2)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	JACKET THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)		DC RESISTANT AT 20°C[1] (ohm/km)		INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
							COPPER	ALUMINUM	COPPER	ALUMINUM		
10	3.72	10.0	2.50	9.55	1.40	14.43	292	229	1.76	2.87	0.3943	16087
16	4.70	16.0	2.50	10.53	1.40	15.41	367	266	1.10	1.80	0.3766	13941
25	5.88	25.0	2.50	11.71	1.50	16.80	482	324	0.703	1.15	0.3597	12029
35	6.96	35.0	2.50	12.79	1.50	17.88	596	375	0.502	0.821	0.3470	10697
50	8.26	50.0	2.50	14.09	1.60	19.39	767	452	0.352	0.575	0.3309	9444
70	9.77	70.0	2.50	15.60	1.60	20.90	982	540	0.251	0.411	0.3182	8318
95	11.39	95.0	2.50	17.22	1.70	22.73	1255	656	0.185	0.302	0.3066	7377
120	12.88	120.0	2.50	18.93	1.70	24.44	1525	768	0.147	0.239	0.2964	6592
150	14.40	150.0	2.50	20.45	1.80	26.16	1844	898	0.117	0.192	0.2880	6023
185	15.99	185.0	2.50	22.04	1.80	27.75	2199	1032	0.0951	0.155	0.2801	5525
240	18.29	240.0	2.60	24.55	1.90	30.47	2777	1263	0.0733	0.120	0.2699	5113
300	20.45	300.0	2.60	27.35	2.00	34.06	3462	1569	0.0586	0.0958	0.2611	4909
400	23.62	400.0	2.60	30.94	2.20	38.02	4512	1988	0.0440	0.0718	0.2503	4626
500	26.41	500.0	2.60	34.15	2.30	41.44	5545	2391	0.0352	0.0575	0.2418	4458

Notes:
1. Uo / U (Um) voltage designation means: Uo rated voltage phase to neutral, U rated voltage phase to phase and Um maximum voltage.
2. DC resistance calculated based on a 17.241 ohm-mm2/km resistivity for cooper and 28.172 ohm-mm²/km for aluminum.
3. Inductive and capacitive reactance at 60 Hz, flat configuration, phases 19 cm separated.
4. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

6/10 (12) kV[1] Single conductors, 90°C

Standards: IEC 60502-2. Power Cables with extruded insulation for voltages from 6 to 30 kV.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (mm^2)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	JACKET THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)		DC RESISTANT AT 20°C[1] (ohm/km)		INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
							COPPER	ALUMINUM	COPPER	ALUMINUM		
16	4.70	16.0	3.50	12.59	1.50	17.68	434	333	1.10	1.80	0.3766	17650
25	5.88	25.0	3.50	13.77	1.60	19.07	554	396	0.703	1.15	0.3597	15393
35	6.96	35.0	3.50	14.85	1.60	20.15	672	451	0.502	0.821	0.3470	13797
50	8.26	50.0	3.50	16.15	1.60	21.45	839	523	0.352	0.575	0.3309	12277
70	9.77	70.0	3.50	17.66	1.70	23.17	1069	627	0.251	0.411	0.3182	10892
95	11.39	95.0	3.50	19.28	1.70	24.79	1337	738	0.185	0.302	0.3066	9723
120	12.88	120.0	3.50	20.99	1.80	26.70	1624	867	0.147	0.239	0.2964	8736
150	14.40	150.0	3.50	22.51	1.90	28.43	1950	1003	0.117	0.192	0.2880	8015
185	15.99	185.0	3.50	24.10	1.90	30.02	2310	1143	0.0951	0.155	0.2801	7380
240	18.29	240.0	3.50	26.40	2.00	33.11	2924	1410	0.0733	0.120	0.2699	6622
300	20.45	300.0	3.50	28.80	2.10	35.68	3557	1665	0.0586	0.0958	0.2611	5982
400	23.62	400.0	3.50	31.97	2.20	39.05	4576	2052	0.0440	0.0718	0.2503	5305
500	26.41	500.0	3.50	34.76	2.30	42.05	5586	2432	0.0352	0.0575	0.2418	4826

Notes:
1. Uo / U (Um) voltage designation means: Uo rated voltage phase to neutral, U rated voltage phase to phase and Um maximum voltage.
2. DC resistance calculated based on a 10.371 ohm-cmil/ft resistivity for cooper and 16.946 ohm-cmil/ft for aluminum.
3. Inductive and capacitive reactance at 60 Hz, flat configuration, phases 7.5" separated.
4. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

8.7/15 (17.5) kV[1] Single conductors, 90°C

Standards: IEC 60502-2. Power Cables with extruded insulation for voltages from 6 to 30 kV.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (mm^2)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	JACKET THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)		DC RESISTANT AT 20°C[1] (ohm/km)		INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
							COPPER	ALUMINUM	COPPER	ALUMINUM		
25	5.88	25.0	4.50	15.74	1.60	21.04	621	464	0.703	1.15	0.3597	18169
35	6.96	35.0	4.50	16.82	1.70	22.33	753	532	0.502	0.821	0.3470	16383
50	8.26	50.0	4.50	18.12	1.70	23.63	924	609	0.352	0.575	0.3309	14666
70	9.77	70.0	4.50	19.63	1.80	25.34	1160	719	0.251	0.411	0.3182	13088
95	11.39	95.0	4.50	21.25	1.80	26.96	1434	834	0.185	0.302	0.3066	11742
120	12.88	120.0	4.50	22.96	1.90	28.88	1727	970	0.147	0.239	0.2964	10598
150	14.40	150.0	4.50	24.48	1.90	30.40	2045	1098	0.117	0.192	0.2880	9757
185	15.99	185.0	4.50	26.07	2.00	32.78	2462	1295	0.0951	0.155	0.2801	9011
240	18.29	240.0	4.50	28.37	2.10	35.25	3046	1532	0.0733	0.120	0.2699	8116
300	20.45	300.0	4.50	30.77	2.20	37.85	3692	1799	0.0586	0.0958	0.2611	7355
400	23.62	400.0	4.50	33.94	2.30	41.23	4722	2198	0.0440	0.0718	0.2503	6547
500	26.41	500.0	4.50	36.73	2.40	44.22	5742	2588	0.0352	0.0575	0.2418	5970

Notes:
1. Uo / U (Um) voltage designation means: Uo rated voltage phase to neutral, U rated voltage phase to phase and Um maximum voltage.
2. DC resistance calculated based on a 17.241 ohm-mm2/km resistivity for cooper and 28.172 ohm-mm2/km for aluminum.
3. Inductive and capacitive reactance at 60 Hz, flat configuration, phases 19 cm separated.
4. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

12/20 (24) kV[1] Single conductors, 90°C

Standards: IEC 60502-2. Power Cables with extruded insulation for voltages from 6 to 30 kV.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (mm^2)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	JACKET THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)		DC RESISTANT AT 20°C[1] (ohm/km)		INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
							COPPER	ALUMINUM	COPPER	ALUMINUM		
35	6.96	35.0	5.50	18.86	1.70	24.37	833	612	0.502	0.821	0.3470	18759
50	8.26	50.0	5.50	20.16	1.80	25.87	1020	704	0.352	0.575	0.3309	16881
70	9.77	70.0	5.50	21.67	1.80	27.38	1249	808	0.251	0.411	0.3182	15140
95	11.39	95.0	5.50	23.29	1.90	29.21	1541	942	0.185	0.302	0.3066	13645
120	12.88	120.0	5.50	25.00	1.90	30.92	1827	1070	0.147	0.239	0.2964	12365
150	14.40	150.0	5.50	26.52	2.00	33.23	2202	1256	0.117	0.192	0.2880	11419
185	15.99	185.0	5.50	28.11	2.10	34.99	2587	1420	0.0951	0.155	0.2801	10575
240	18.29	240.0	5.50	30.41	2.20	37.49	3183	1669	0.0733	0.120	0.2699	9557
300	20.45	300.0	5.50	32.81	2.20	39.89	3819	1927	0.0586	0.0958	0.2611	8688
400	23.62	400.0	5.50	35.98	2.30	43.27	4860	2336	0.0440	0.0718	0.2503	7758
500	26.41	500.0	5.50	38.77	2.50	47.33	5989	2835	0.0352	0.0575	0.2418	7092

Notes:
1. Uo / U (Um) voltage designation means: Uo rated voltage phase to neutral, U rated voltage phase to phase and Um maximum voltage.
2. DC resistance calculated based on a 10.371 ohm-cmil/ft resistivity for cooper and 16.946 ohm-cmil/ft for aluminum.
3. Inductive and capacitive reactance at 60 Hz, flat configuration, phases 7.5" separated.
4. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

18/30 (36) kV[1] Single conductors, 90°C

Standards: IEC 60502-2. Power Cables with extruded insulation for voltages from 6 to 30 kV.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (mm^2)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	JACKET THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)		DC RESISTANT AT 20°C[1] (ohm/km)		INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
							COPPER	ALUMINUM	COPPER	ALUMINUM		
50	8.26	50.0	8.00	25.10	1.90	31.02	1264	949	0.352	0.575	0.3309	21431
70	9.77	70.0	8.00	26.61	2.00	33.32	1558	1116	0.251	0.411	0.3182	19403
95	11.39	95.0	8.00	28.23	2.10	35.11	1864	1265	0.185	0.302	0.3066	17638
120	12.88	120.0	8.00	29.94	2.10	36.82	2166	1409	0.147	0.239	0.2964	16109
150	14.40	150.0	8.00	31.46	2.20	38.54	2519	1573	0.117	0.192	0.2880	14965
185	15.99	185.0	8.00	33.05	2.20	40.13	2904	1737	0.0951	0.155	0.2801	13936
240	18.29	240.0	8.00	35.35	2.30	42.64	3520	2006	0.0733	0.120	0.2699	12682
300	20.45	300.0	8.00	37.75	2.40	45.24	4196	2303	0.0586	0.0958	0.2611	11599
400	23.62	400.0	8.00	40.92	2.60	49.69	5369	2845	0.0440	0.0718	0.2503	10429
500	26.41	500.0	8.00	43.71	2.60	52.48	6405	3251	0.0352	0.0575	0.2418	9582

Notes:
1. Uo / U (Um) voltage designation means: Uo rated voltage phase to neutral, U rated voltage phase to phase and Um maximum voltage.
2. DC resistance calculated based on a 17.241 ohm-mm2/km resistivity for cooper and 28.172 ohm-mm2/km for aluminum.
3. Inductive and capacitive reactance at 60 Hz, flat configuration, phases 19 cm separated.
4. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

MV-90 5 - 35 kV Three Conductors

Description

Three phases copper or aluminum stranded, thermo set insulated, stranded and with common PVC jacket.

Contruction

Conductor
Soft Copper or 1350-H19 aluminum, compact stranded.

Conductor Shield
Cross linked polyethylene semiconductor.

Insulation
Cross linked polyethylene XLPE.

Insulation shield
Cross linked polyethylene removable semiconductor.
Insulation and shields are applied by true triple extrusion process.

Metallic shield
Copper tape helically and overlapped applied over insulation shield, 2.5 mils (0.0635mm) thickness.

Filler
Flame retardant polyvinyl chloride PVC, applied over the three stranded phases.

Jacket
Flame retardant polyvinyl chloride PVC.

Options
EPR or XLPE-TR (Tree retardant XLPE)
Copper wires metallic shield.
Polyethylene Jacket, PVC SR (Sunlight Resistant) Jacket, PVC Tray Cable type jacket.
Moisture barrier against longitudinally migration.
Ground conductors laid on interstices.
Armor for Direct Burial.

Characteristics

Operating Temperature

Normal continuous operation 90°C for wet or dry locations (105°C optional)
Overload 130°C
Short circuit 250°C

Rated Voltage

5, 8, 15, 25 and 35 kV.

Insulation Level

100% (133% and 173% optional).

Applications

Distribution of electric energy at Medium Voltage, installed at air, underground ducts, raceways, direct buried or tray cables.

Standards

CENTELSA's 5-35 kV three conductors are manufactured in accordance with the following standards:
ASTM B496, NTC-ICONTEC 2187. Compact round concentric lay stranded Copper Conductors.
ASTM B400, NTC-ICONTEC 4334. Compact round concentric lay stranded Aluminum 1350 Conductors.
UL 1072. Medium Voltage Power Cables MV90.
ICEA S-97-682 Standard for Utility Shielded Power Cables Rated 5000 To 46000 Volts.
AEIC CS8. Specification for Extruded Dielectric, Shielded Power Cables Rated 5 through 46 kV.

Certifications

CENTELSA's 5-35 kV single conductors are certified by:
UL 1072. File E167359.
ICONTEC (Colombia). NTC 2186 standard
CIDET (Colombia). Cert. 00412. 15 kV Medium Voltage Copper, XLPE

Note: Configurations and sizes herein not specified are available upon request.

MV-90 5 kV Three conductors, 90°C (International Unit System) 100% Insulation Level

Standards: UL 1072. Medium Voltage Power Cables MV90, ICEA S-97-682 Standard for Utility Shielded Power Cables Rated 5000 To 46000 Volts.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (mm^2)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	DIAMETER OVER TRANDED PHASE (mm)	FILLER THICKNESS (mm)	JACKET THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)		DC RESISTANT AT 20°C[1] (ohm/km)		INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
									COPPER	ALUMINUM	COPPER	ALUMINUM		
8	3.40	8.4	2.29	8.86	23.34	0.50	2.03	28.52	1101	941	2.12	3.47	0.1638	15795
6	4.29	13.3	2.29	9.75	25.26	0.50	2.03	30.44	1339	1084	1.34	2.18	0.1522	13740
4	5.41	21.2	2.29	10.87	27.67	0.50	2.03	32.85	1688	1284	0.840	1.37	0.1416	11824
2	6.81	33.6	2.29	12.27	30.69	1.00	2.03	36.87	2297	1654	0.528	0.863	0.1320	10081
1	7.59	42.4	2.29	13.05	32.37	1.00	2.03	38.55	2638	1828	0.419	0.684	0.1246	9319
1/0	8.53	53.5	2.29	13.99	34.39	1.00	2.03	40.58	3072	2050	0.332	0.543	0.1204	8544
2/0	9.55	67.4	2.29	15.01	36.59	1.00	2.79	44.34	3755	2466	0.263	0.430	0.1165	7838
3/0	10.74	85.0	2.29	16.20	39.16	1.00	2.79	46.90	4423	2797	0.209	0.341	0.1128	7150
4/0	12.07	107.2	2.29	17.53	42.02	1.00	2.79	49.77	5245	3196	0.166	0.271	0.1093	6512
250	13.21	126.7	2.29	18.91	45.00	1.00	2.79	52.74	6023	3601	0.140	0.229	0.1067	5961
300	14.48	152.0	2.29	20.18	47.73	1.00	2.79	55.48	6938	4032	0.117	0.191	0.1042	5531
350	15.65	177.3	2.29	21.35	50.26	1.00	2.79	58.00	7842	4452	0.100	0.164	0.1022	5187
400	16.74	202.7	2.29	22.44	52.60	1.00	2.79	60.35	8737	4863	0.0876	0.143	0.1006	4902
450	17.78	228.0	2.29	23.48	54.85	1.00	2.79	62.59	9628	5269	0.0779	0.127	0.0992	4659
500	18.69	253.4	2.29	24.39	56.81	1.00	2.79	64.55	10498	5655	0.0701	0.115	0.0981	4465
600	20.65	304.0	2.29	26.57	62.75	1.00	3.56	72.09	12786	6975	0.0584	0.0955	0.0977	4060
750	23.06	380.0	2.29	28.98	67.95	1.00	3.56	77.28	-	8145	-	0.0764	0.0954	3691
1000	26.92	506.7	2.29	32.84	76.27	1.00	3.56	85.60	-	10113	-	0.0573	0.0924	3221

Notes:
1. DC resistance calculated based on a 17.241 ohm-mm2/km resistivity for cooper and 28.172 ohm-mm²/km for aluminum.
2. Inductive and capacitive reactance at 60 Hz.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

MV-90 5 kV Three conductors, 90°C
100% Insulation Level

Standards: UL 1072. Medium Voltage Power Cables MV90, ICEA S-97-682
Standard for Utility Shielded Power Cables Rated 5000 To 46000 Volts.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (mm^2)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	DIAMETER OVER TRANDED PHASE (mm)	FILLER THICKNESS (mm)	JACKET THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)		DC RESISTANT AT 20°C[1] (ohm/km)		INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
									COPPER	ALUMINUM	COPPER	ALUMINUM		
8	134	0.0130	90	349	919	20	80	1123	740	632	0.647	1.06	0.2635	9815
6	169	0.0206	90	384	994	20	80	1198	900	729	0.407	0.665	0.2449	8538
4	213	0.0328	90	428	1089	20	80	1293	1134	863	0.256	0.418	0.2278	7347
2	268	0.0521	90	483	1208	39	80	1452	1544	1112	0.161	0.263	0.2125	6264
1	299	0.0657	90	514	1274	39	80	1518	1773	1228	0.128	0.209	0.2005	5791
1/0	336	0.0829	90	551	1354	39	80	1598	2065	1378	0.101	0.165	0.1937	5309
2/0	376	0.105	90	591	1441	39	110	1746	2524	1657	0.0803	0.131	0.1876	4870
3/0	423	0.132	90	638	1542	39	110	1847	2972	1880	0.0637	0.104	0.1815	4443
4/0	475	0.166	90	690	1654	39	110	1959	3525	2148	0.0505	0.0825	0.1759	4046
250	520	0.196	90	744	1772	39	110	2077	4048	2420	0.0427	0.0698	0.1717	3704
300	570	0.236	90	794	1879	39	110	2184	4663	2710	0.0356	0.0582	0.1677	3437
350	616	0.275	90	841	1979	39	110	2284	5270	2992	0.0305	0.0499	0.1645	3223
400	659	0.314	90	883	2071	39	110	2376	5872	3268	0.0267	0.0436	0.1619	3046
450	700	0.353	90	924	2159	39	110	2464	6470	3541	0.0237	0.0388	0.1597	2895
500	736	0.393	90	960	2236	39	110	2542	7055	3800	0.0214	0.0349	0.1579	2774
600	813	0.471	90	1046	2471	39	140	2838	8593	4687	0.0178	0.0291	0.1572	2523
750	908	0.589	90	1141	2675	39	140	3043	-	5474	-	0.0233	0.1535	2293
1000	1060	0.785	90	1293	3003	39	140	3370	-	6796	-	0.0175	0.1487	2002

Notes:
1. DC resistance calculated based on a 10.371 ohm-cmil/ft resistivity for cooper and 16.946 ohm-cmil/ft for aluminum.
2. Inductive and capacitive reactance at 60 Hz.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

MV-90 8 kV Three conductors, 90°C (International Unit System) 100% Insulation Level

Standards: UL 1072. Medium Voltage Power Cables MV90, ICEA S-97-682 Standard for Utility Shielded Power Cables Rated 5000 To 46000 Volts.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (mm²)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	DIAMETER OVER TRANDED PHASE (mm)	FILLER THICKNESS (mm)	JACKET THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)		DC RESISTANT AT 20°C[1] (ohm/km)		INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
									COPPER	ALUMINUM	COPPER	ALUMINUM		
6	4.29	13.3	2.92	11.05	28.06	0.50	2.03	33.24	1519	1265	1.34	2.18	0.1601	16338
4	5.41	21.2	2.92	12.17	30.47	1.00	2.03	36.65	1972	1567	0.840	1.37	0.1488	14169
2	6.81	33.6	2.92	13.57	33.49	1.00	2.03	39.67	2513	1870	0.528	0.863	0.1386	12171
1	7.59	42.4	2.92	14.35	35.17	1.00	2.03	41.35	2863	2052	0.419	0.684	0.1309	11291
1/0	8.53	53.5	2.92	15.29	37.20	1.00	2.79	44.94	3464	2442	0.332	0.543	0.1263	10388
2/0	9.55	67.4	2.92	16.31	39.39	1.00	2.79	47.14	4011	2722	0.263	0.430	0.1221	9562
3/0	10.74	85.0	2.92	17.50	41.96	1.00	2.79	49.71	4692	3067	0.209	0.341	0.1180	8752
4/0	12.07	107.2	2.92	18.83	44.83	1.00	2.79	52.57	5529	3480	0.166	0.271	0.1142	7997
250	13.21	126.7	2.92	20.21	47.80	1.00	2.79	55.55	6322	3901	0.140	0.229	0.1112	7341
300	14.48	152.0	2.92	21.48	50.54	1.00	2.79	58.28	7251	4346	0.117	0.191	0.1085	6827
350	15.65	177.3	2.92	22.65	53.06	1.00	2.79	60.80	8168	4778	0.100	0.164	0.1063	6414
400	16.74	202.7	2.92	23.74	55.41	1.00	2.79	63.15	9075	5201	0.0876	0.143	0.1045	6071
450	17.78	228.0	2.92	24.78	57.65	1.00	2.79	65.39	9978	5619	0.0779	0.127	0.1030	5778
500	18.69	253.4	2.92	25.69	60.86	1.00	2.79	68.61	11042	6199	0.0701	0.115	0.1033	5543
600	20.65	304.0	2.92	27.87	65.56	1.00	3.56	74.89	13188	7377	0.0584	0.0955	0.1010	5052
750	23.06	380.0	2.92	30.28	70.75	1.00	3.56	80.08	-	8574	-	0.0764	0.0984	4601
1000	26.92	506.7	2.92	34.14	79.07	1.00	3.56	88.40	-	10584	-	0.0573	0.0951	4027

Notes:
1. DC resistance calculated based on a 17.241 ohm-mm2/km resistivity for cooper and 28.172 ohm-mm²/km for aluminum.
2. Inductive and capacitive reactance at 60 Hz.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

MV-90 8 kV Three conductors, 90°C 100% Insulation Level

Standards: UL 1072. Medium Voltage Power Cables MV90, ICEA S-97-682 Standard for Utility Shielded Power Cables Rated 5000 To 46000 Volts.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (sq inches)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	DIAMETER OVER TRANDED PHASE (mm)	FILLER THICKNESS (mm)	JACKET THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)		DC RESISTANT AT 20°C[1] (ohm/km)		INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
									COPPER	ALUMINUM	COPPER	ALUMINUM		
6	169	0.0206	115	435	1105	20	80	1309	1021	850	0.407	0.665	0.2577	10152
4	213	0.0328	115	479	1200	39	80	1443	1325	1053	0.256	0.418	0.2395	8804
2	268	0.0521	115	534	1318	39	80	1562	1689	1257	0.161	0.263	0.2231	7563
1	299	0.0657	115	565	1385	39	80	1628	1924	1379	0.128	0.209	0.2106	7016
1/0	336	0.0829	115	602	1464	39	110	1769	2328	1641	0.101	0.165	0.2032	6455
2/0	376	0.105	115	642	1551	39	110	1856	2696	1830	0.0803	0.131	0.1965	5942
3/0	423	0.132	115	689	1652	39	110	1957	3153	2061	0.0637	0.104	0.1899	5438
4/0	475	0.166	115	741	1765	39	110	2070	3716	2339	0.0505	0.0825	0.1838	4969
250	520	0.196	115	796	1882	39	110	2187	4249	2621	0.0427	0.0698	0.1790	4562
300	570	0.236	115	846	1990	39	110	2295	4873	2920	0.0356	0.0582	0.1746	4242
350	616	0.275	115	892	2089	39	110	2394	5489	3211	0.0305	0.0499	0.1711	3985
400	659	0.314	115	935	2181	39	110	2486	6099	3495	0.0267	0.0436	0.1682	3773
450	700	0.353	115	976	2270	39	110	2575	6705	3776	0.0237	0.0388	0.1657	3590
500	736	0.393	115	1011	2396	39	110	2701	7421	4166	0.0214	0.0349	0.1662	3444
600	813	0.471	115	1097	2581	39	140	2948	8863	4958	0.0178	0.0291	0.1625	3139
750	908	0.589	115	1192	2785	39	140	3153	-	5762	-	0.0233	0.1584	2859
1000	1060	0.785	115	1344	3113	39	140	3480	-	7113	-	0.0175	0.1531	2502

Notes:
1. DC resistance calculated based on a 10.371 ohm-cmil/ft resistivity for cooper and 16.946 ohm-cmil/ft for aluminum.
2. Inductive and capacitive reactance at 60 Hz.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

MV-90 15 kV Three conductors, 90°C (International Unit System) 100% Insulation Level

Standards: UL 1072. Medium Voltage Power Cables MV90, ICEA S-97-682
Standard for Utility Shielded Power Cables Rated 5000 To 46000 Volts.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (mm²)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	DIAMETER OVER TRANDED PHASE (mm)	FILLER THICKNESS (mm)	JACKET THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)		DC RESISTANT AT 20°C[1] (ohm/km)		INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
									COPPER	ALUMINUM	COPPER	ALUMINUM		
2	6.81	33.6	4.45	16.63	40.08	1.00	2.79	47.83	3245	2602	0.528	0.863	0.1522	16393
1	7.59	42.4	4.45	17.41	41.76	1.00	2.79	49.51	3621	2810	0.419	0.684	0.1438	15303
1/0	8.53	53.5	4.45	18.35	43.79	1.00	2.79	51.54	4097	3075	0.332	0.543	0.1386	14175
2/0	9.55	67.4	4.45	19.37	45.99	1.00	2.79	53.74	4671	3382	0.263	0.430	0.1338	13131
3/0	10.74	85.0	4.45	20.56	48.55	1.00	2.79	56.30	5383	3758	0.209	0.341	0.1290	12097
4/0	12.07	107.2	4.45	21.89	51.42	1.00	2.79	59.17	6255	4205	0.166	0.271	0.1245	11123
250	13.21	126.7	4.45	23.27	54.39	1.00	2.79	62.14	7084	4662	0.140	0.229	0.1210	10268
300	14.48	152.0	4.45	24.54	57.13	1.00	2.79	64.88	8046	5140	0.117	0.191	0.1178	9592
350	15.65	177.3	4.45	25.71	60.90	1.00	2.79	68.65	9178	5788	0.100	0.164	0.1167	9044
400	16.74	202.7	4.45	26.80	63.25	1.00	3.56	72.58	10378	6504	0.0876	0.143	0.1145	8588
450	17.78	228.0	4.45	27.84	65.49	1.00	3.56	74.83	11321	6963	0.0779	0.127	0.1126	8195
500	18.69	253.4	4.45	28.75	67.45	1.00	3.56	76.79	12238	7395	0.0701	0.115	0.1110	7879
600	20.65	304.0	4.45	30.93	72.15	1.00	3.56	81.48	14191	8380	0.0584	0.0955	0.1082	7214
750	23.06	380.0	4.45	33.34	77.34	1.00	3.56	86.68	-	9640	-	0.0764	0.1051	6600
1000	26.92	506.7	4.45	37.20	85.66	1.00	3.56	95.00	-	11751	-	0.0573	0.1012	5809

Notes:
1. DC resistance calculated based on a 17.241 ohm-mm2/km resistivity for cooper and 28.172 ohm-mm²/km for aluminum.
2. Inductive and capacitive reactance at 60 Hz.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

MV-90 15 kV Three conductors, 90°C 100% Insulation Level

Standards: UL 1072. Medium Voltage Power Cables MV90, ICEA S-97-682
Standard for Utility Shielded Power Cables Rated 5000 To 46000 Volts.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (sq inches)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	DIAMETER OVER TRANDED PHASE (mm)	FILLER THICKNESS (mm)	JACKET THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)		DC RESISTANT AT 20°C[1] (ohm/km)		INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
									COPPER	ALUMINUM	COPPER	ALUMINUM		
2	268	0.0521	175	655	1578	39	110	1883	2181	1749	0.161	0.263	0.2449	10186
1	299	0.0657	175	685	1644	39	110	1949	2433	1889	0.128	0.209	0.2315	9509
1/0	336	0.0829	175	722	1724	39	110	2029	2753	2066	0.101	0.165	0.2231	8808
2/0	376	0.105	175	763	1811	39	110	2116	3139	2273	0.0803	0.131	0.2153	8160
3/0	423	0.132	175	809	1912	39	110	2217	3618	2525	0.0637	0.104	0.2076	7517
4/0	475	0.166	175	862	2024	39	110	2329	4204	2826	0.0505	0.0825	0.2004	6912
250	520	0.196	175	916	2141	39	110	2446	4761	3133	0.0427	0.0698	0.1947	6381
300	570	0.236	175	966	2249	39	110	2554	5407	3455	0.0356	0.0582	0.1895	5960
350	616	0.275	175	1012	2398	39	110	2703	6168	3890	0.0305	0.0499	0.1878	5620
400	659	0.314	175	1055	2490	39	140	2858	6974	4371	0.0267	0.0436	0.1843	5337
450	700	0.353	175	1096	2578	39	140	2946	7608	4679	0.0237	0.0388	0.1812	5092
500	736	0.393	175	1132	2656	39	140	3023	8224	4970	0.0214	0.0349	0.1787	4896
600	813	0.471	175	1218	2841	39	140	3208	9537	5631	0.0178	0.0291	0.1741	4483
750	908	0.589	175	1313	3045	39	140	3413	-	6478	-	0.0233	0.1692	4101
1000	1060	0.785	175	1465	3373	39	140	3740	-	7897	-	0.0175	0.1628	3610

Notes:
1. DC resistance calculated based on a 10.371 ohm-cmil/ft resistivity for cooper and 16.946 ohm-cmil/ft for aluminum.
2. Inductive and capacitive reactance at 60 Hz.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

MV-90 25 kV Three conductors, 90°C (International Unit System) 100% Insulation Level

Standards: UL 1072. Medium Voltage Power Cables MV90, ICEA S-97-682 Standard for Utility Shielded Power Cables Rated 5000 To 46000 Volts.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (mm²)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	DIAMETER OVER TRANDED PHASE (mm)	FILLER THICKNESS (mm)	JACKET THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)		DC RESISTANT AT 20°C[1] (ohm/km)		INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
									COPPER	ALUMINUM	COPPER	ALUMINUM		
1	7.59	42.4	6.60	21.67	50.95	1.00	2.79	58.69	4601	3791	0.419	0.684	0.1588	19847
1/0	8.53	53.5	6.60	22.61	52.97	1.00	2.79	60.72	5111	4089	0.332	0.543	0.1530	18509
2/0	9.55	67.4	6.60	23.63	55.17	1.00	2.79	62.92	5723	4434	0.263	0.430	0.1475	17258
3/0	10.74	85.0	6.60	24.82	57.73	1.00	2.79	65.48	6478	4852	0.209	0.341	0.1421	16006
4/0	12.07	107.2	6.60	26.15	61.85	1.00	3.56	69.60	7585	5535	0.166	0.271	0.1385	14814
250	13.21	126.7	6.60	27.53	64.82	1.00	3.56	72.57	8472	6050	0.140	0.229	0.1342	13758
300	14.48	152.0	6.60	28.80	67.56	1.00	3.56	76.89	9761	6855	0.117	0.191	0.1304	12915
350	15.65	177.3	6.60	29.97	70.08	1.00	3.56	79.42	10767	7377	0.100	0.164	0.1273	12227
400	16.74	202.7	6.60	31.06	72.43	1.00	3.56	81.76	11757	7883	0.0876	0.143	0.1247	11651
450	17.78	228.0	6.60	32.10	74.67	1.00	3.56	84.01	12738	8379	0.0779	0.127	0.1225	11150
500	18.69	253.4	6.60	33.01	76.63	1.00	3.56	85.97	13688	8845	0.0701	0.115	0.1207	10747
600	20.65	304.0	6.60	35.19	81.33	1.00	3.56	90.66	-	9909	-	0.0955	0.1172	9893
750	23.06	380.0	6.60	37.60	86.52	1.00	3.56	95.86	-	11256	-	0.0764	0.1136	9096
1000	26.92	506.7	6.60	41.46	96.70	1.00	3.56	106.03	-	13926	-	0.0573	0.1103	8060

Notes:
1. DC resistance calculated based on a 17.241 ohm-mm2/km resistivity for cooper and 28.172 ohm-mm²/km for aluminum.
2. Inductive and capacitive reactance at 60 Hz.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

MV-90 25 kV Three conductors, 90°C 100% Insulation Level

Standards: UL 1072. Medium Voltage Power Cables MV90, ICEA S-97-682 Standard for Utility Shielded Power Cables Rated 5000 To 46000 Volts.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (sq inches)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	DIAMETER OVER TRANDED PHASE (mm)	FILLER THICKNESS (mm)	JACKET THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)		DC RESISTANT AT 20°C[1] (ohm/km)		INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
									COPPER	ALUMINUM	COPPER	ALUMINUM		
1	299	0.0657	260	853	2006	39	110	2311	3092	2548	0.128	0.209	0.2556	12333
1/0	336	0.0829	260	890	2085	39	110	2390	3435	2748	0.101	0.165	0.2461	11501
2/0	376	0.105	260	930	2172	39	110	2477	3846	2980	0.0803	0.131	0.2374	10724
3/0	423	0.132	260	977	2273	39	110	2578	4353	3261	0.0637	0.104	0.2286	9946
4/0	475	0.166	260	1030	2435	39	140	2740	5097	3720	0.0505	0.0825	0.2228	9205
250	520	0.196	260	1084	2552	39	140	2857	5693	4066	0.0427	0.0698	0.2160	8549
300	570	0.236	260	1134	2660	39	140	3027	6560	4607	0.0356	0.0582	0.2099	8025
350	616	0.275	260	1180	2759	39	140	3127	7236	4958	0.0305	0.0499	0.2049	7598
400	659	0.314	260	1223	2852	39	140	3219	7901	5297	0.0267	0.0436	0.2007	7240
450	700	0.353	260	1264	2940	39	140	3307	8561	5631	0.0237	0.0388	0.1971	6929
500	736	0.393	260	1300	3017	39	140	3385	9199	5944	0.0214	0.0349	0.1942	6678
600	813	0.471	260	1385	3202	39	140	3569	-	6659	-	0.0291	0.1887	6147
750	908	0.589	260	1480	3406	39	140	3774	-	7565	-	0.0233	0.1828	5652
1000	1060	0.785	260	1632	3807	39	140	4174	-	9359	-	0.0175	0.1775	5008

Notes:
1. DC resistance calculated based on a 10.371 ohm-cmil/ft resistivity for cooper and 16.946 ohm-cmil/ft for aluminum.
2. Inductive and capacitive reactance at 60 Hz.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

MV-90 35 kV Three conductors, 90°C (International Unit System) 100% Insulation Level

Standards: UL 1072. Medium Voltage Power Cables MV90, ICEA S-97-682
Standard for Utility Shielded Power Cables Rated 5000 To 46000 Volts.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (mm²)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	DIAMETER OVER TRANDED PHASE (mm)	FILLER THICKNESS (mm)	JACKET THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)		DC RESISTANT AT 20°C[1] (ohm/km)		INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
									COPPER	ALUMINUM	COPPER	ALUMINUM		
1/0	8.53	53.5	8.76	26.97	63.62	1.00	3.56	72.95	6761	5739	0.332	0.543	0.1668	22170
2/0	9.55	67.4	8.76	27.99	65.81	1.00	3.56	75.15	7424	6135	0.263	0.430	0.1608	20773
3/0	10.74	85.0	8.76	29.18	68.38	1.00	3.56	77.71	8239	6614	0.209	0.341	0.1548	19366
4/0	12.07	107.2	8.76	30.51	71.25	1.00	3.56	80.58	9227	7178	0.166	0.271	0.1491	18016
250	13.21	126.7	8.76	31.89	74.22	1.00	3.56	83.55	10176	7754	0.140	0.229	0.1444	16810
300	14.48	152.0	8.76	33.16	76.96	1.00	3.56	86.29	11249	8343	0.117	0.191	0.1402	15841
350	15.65	177.3	8.76	34.33	79.48	1.00	3.56	88.81	12298	8908	0.100	0.164	0.1368	15047
400	16.74	202.7	8.76	35.42	81.83	1.00	3.56	91.16	13329	9454	0.0876	0.143	0.1339	14378
450	17.78	228.0	8.76	36.46	84.07	1.00	3.56	93.40	14349	9990	0.0779	0.127	0.1314	13794
500	18.69	253.4	8.76	37.37	86.03	1.00	3.56	95.36	-	10489	-	0.115	0.1294	13323
600	20.65	304.0	8.76	39.55	92.58	1.00	3.56	101.91	-	12036	-	0.0955	0.1270	12318
750	23.06	380.0	8.76	41.96	97.77	1.00	3.56	107.11	-	13494	-	0.0764	0.1228	11374

Notes:
1. DC resistance calculated based on a 17.241 ohm-mm2/km resistivity for cooper and 28.172 ohm-mm²/km for aluminum.
2. Inductive and capacitive reactance at 60 Hz.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

MV-90 35 kV Three conductors, 90°C 100% Insulation Level

Standards: UL 1072. Medium Voltage Power Cables MV90, ICEA S-97-682
Standard for Utility Shielded Power Cables Rated 5000 To 46000 Volts.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (sq inches)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	DIAMETER OVER TRANDED PHASE (mm)	FILLER THICKNESS (mm)	JACKET THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)		DC RESISTANT AT 20°C[1] (ohm/km)		INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
									COPPER	ALUMINUM	COPPER	ALUMINUM		
1/0	336	0.0829	345	1062	2505	39	140	2872	4544	3857	0.101	0.165	0.2684	13776
2/0	376	0.105	345	1102	2591	39	140	2959	4989	4123	0.0803	0.131	0.2588	12908
3/0	423	0.132	345	1149	2692	39	140	3060	5537	4445	0.0637	0.104	0.2492	12034
4/0	475	0.166	345	1201	2805	39	140	3172	6201	4824	0.0505	0.0825	0.2400	11195
250	520	0.196	345	1256	2922	39	140	3289	6839	5211	0.0427	0.0698	0.2324	10446
300	570	0.236	345	1306	3030	39	140	3397	7560	5607	0.0356	0.0582	0.2257	9844
350	616	0.275	345	1352	3129	39	140	3496	8265	5987	0.0305	0.0499	0.2201	9350
400	659	0.314	345	1394	3222	39	140	3589	8957	6354	0.0267	0.0436	0.2155	8934
450	700	0.353	345	1435	3310	39	140	3677	9643	6714	0.0237	0.0388	0.2115	8572
500	736	0.393	345	1471	3387	39	140	3754	-	7049	-	0.0349	0.2082	8279
600	813	0.471	345	1557	3645	39	140	4012	-	8089	-	0.0291	0.2044	7654
750	908	0.589	345	1652	3849	39	140	4217	-	9068	-	0.0233	0.1976	7068

Notes:
1. DC resistance calculated based on a 10.371 ohm-cmil/ft resistivity for cooper and 16.946 ohm-cmil/ft for aluminum.
2. Inductive and capacitive reactance at 60 Hz.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

MV-90 5 - 35 kV Triplexed Conductors

Description

Three phases copper or aluminum stranded, thermo set insulated.

Contruction

Conductor
Soft Copper or 1350-H19 aluminum, compact stranded.

Conductor Shield
Cross linked polyethylene semiconductor.

Insulation
Cross linked polyethylene XLPE.

Insulation shield
Cross linked polyethylene removable semiconductor.
Insulation and shields are applied by true triple extrusion process.

Metallic shield
Copper tape helically and overlapped applied over insulation shield, 2.5 mils (0.0635mm) thickness.

Jacket
Flame retardant polyvinyl chloride PVC.

Options
EPR or XLPE-TR (Tree retardant XLPE)
Copper wires metallic shield.
Polyethylene Jacket, PVC SR (Sunlight Resistant) Jacket, PVC Tray Cable type jacket.
Moisture barrier against longitudinally migration.

Characteristics

Operating Temperature

Normal continuous operation 90°C for wet or dry locations (105°C optional)
Overload 130°C
Short circuit 250°C

Rated Voltage

5, 8, 15, 25 and 35 kV.

Insulation Level

100% (133% and 173% optional).

Applications

Distribution of electric energy at Medium Voltage, installed at air, underground ducts, raceways, direct buried or tray cables.

Standards

CENTELSA's 5-35 kV three conductors are manufactured in accordance with the following standards:
ASTM B496, NTC-ICONTEC 2187. Compact round concentric lay stranded Copper Conductors.
ASTM B400, NTC-ICONTEC 4334. Compact round concentric lay stranded Aluminum 1350 Conductors.
UL 1072. Medium Voltage Power Cables MV90.
ICEA S-97-682 Standard for Utility Shielded Power Cables Rated 5000 To 46000 Volts.
AEIC CS8. Specification for Extruded Dielectric, Shielded Power Cables Rated 5 through 46 kV.

Certifications

CENTELSA's 5-35 kV Triplex conductors are certified by:
UL 1072. File E167359.
ICONTEC (Colombia). NTC 2186 standard
CIDET (Colombia). Cert. 00412. 15 kV Medium Voltage Copper, XLPE
CIDET (Colombia). Cert. 00413. 35 kV Medium Voltage Copper, XLPE
CIDET (Colombia). Cert. 00414. 15 kV Medium Voltage Copper, EPR
CIDET (Colombia). Cert. 00415. 35 kV Medium Voltage Copper, EPR

Note: Configurations and sizes herein not specified are available upon request.

MV-90 5 kV Triplexed conductors, 90°C (International Unit System) 100% Insulation Level

Standards: UL 1072. Medium Voltage Power Cables MV90, ICEA S-97-682 Standard for Utility Shielded Power Cables Rated 5000 To 46000 Volts.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (mm²)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	JACKET THICKNESS (mm)	JACKET DIAMETER (mm)	DIAMETER OVER TRANDED PHASE (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)		DC RESISTANT AT 20°C[1] (ohm/km)		INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
								COPPER	ALUMINUM	COPPER	ALUMINUM		
8	3.40	8.4	2.29	8.86	1.14	13.20	28.45	742	582	2.12	3.47	0.1787	15795
6	4.29	13.3	2.29	9.75	1.52	14.88	32.07	1008	754	1.34	2.18	0.1702	13740
4	5.41	21.2	2.29	10.87	1.52	16.00	34.48	1296	891	0.840	1.37	0.1582	11824
2	6.81	33.6	2.29	12.27	1.52	17.40	37.50	1729	1086	0.528	0.863	0.1471	10081
1	7.59	42.4	2.29	13.05	1.52	18.18	39.18	2015	1205	0.419	0.684	0.1390	9319
1/0	8.53	53.5	2.29	13.99	1.52	19.12	41.21	2380	1357	0.332	0.543	0.1340	8544
2/0	9.55	67.4	2.29	15.01	1.52	20.14	43.41	2828	1539	0.263	0.430	0.1294	7838
3/0	10.74	85.0	2.29	16.20	2.03	22.35	48.17	3542	1916	0.209	0.341	0.1284	7150
4/0	12.07	107.2	2.29	17.53	2.03	23.68	51.04	4246	2197	0.166	0.271	0.1240	6512
250	13.21	126.7	2.29	18.91	2.03	25.06	54.01	4894	2472	0.140	0.229	0.1204	5961
300	14.48	152.0	2.29	20.18	2.03	26.33	56.75	5682	2776	0.117	0.191	0.1173	5531
350	15.65	177.3	2.29	21.35	2.03	27.50	59.27	6464	3074	0.100	0.164	0.1147	5187
400	16.74	202.7	2.29	22.44	2.03	28.59	61.62	7239	3365	0.0876	0.143	0.1125	4902
450	17.78	228.0	2.29	23.48	2.03	29.63	63.86	8012	3653	0.0779	0.127	0.1107	4659
500	18.69	253.4	2.29	24.39	2.03	30.54	65.82	8775	3932	0.0701	0.115	0.1092	4465
600	20.65	304.0	2.29	26.57	2.03	33.30	71.77	10460	4648	0.0584	0.0955	0.1078	4060
750	23.06	380.0	2.29	28.98	2.03	35.71	76.96	12736	5471	0.0467	0.0764	0.1048	3691
1000	26.92	506.7	2.29	32.84	2.03	39.57	85.28	16518	6832	0.0351	0.0573	0.1008	3221

Notes:
1. DC resistance calculated based on a 17.241 ohm-mm2/km resistivity for cooper and 28.172 ohm-mm²/km for aluminum.
2. Inductive and capacitive reactance at 60 Hz.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

MV-90 5 kV Triplexed conductors, 90°C
100% Insulation Level

Standards: UL 1072. Medium Voltage Power Cables MV90, ICEA S-97-682
Standard for Utility Shielded Power Cables Rated 5000 To 46000 Volts.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (sq inches)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	JACKET THICKNESS (mm)	JACKET DIAMETER (mm)	DIAMETER OVER TRANDED PHASE (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)		DC RESISTANT AT 20°C[1] (ohm/km)		INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
								COPPER	ALUMINUM	COPPER	ALUMINUM		
8	134	0.0130	90	349	45	520	1120	498	391	0.647	1.06	0.2876	9815
6	169	0.0206	90	384	60	586	1263	677	506	0.407	0.665	0.2739	8538
4	213	0.0328	90	428	60	630	1358	871	599	0.256	0.418	0.2545	7347
2	268	0.0521	90	483	60	685	1476	1162	730	0.161	0.263	0.2368	6264
1	299	0.0657	90	514	60	716	1543	1354	810	0.128	0.209	0.2237	5791
1/0	336	0.0829	90	551	60	753	1622	1599	912	0.101	0.165	0.2157	5309
2/0	376	0.105	90	591	60	793	1709	1901	1035	0.0803	0.131	0.2083	4870
3/0	423	0.132	90	638	80	880	1896	2380	1288	0.0637	0.104	0.2067	4443
4/0	475	0.166	90	690	80	932	2009	2854	1476	0.0505	0.0825	0.1995	4046
250	520	0.196	90	744	80	987	2126	3289	1661	0.0427	0.0698	0.1938	3704
300	570	0.236	90	794	80	1037	2234	3819	1866	0.0356	0.0582	0.1887	3437
350	616	0.275	90	841	80	1083	2333	4344	2066	0.0305	0.0499	0.1845	3223
400	659	0.314	90	883	80	1126	2426	4865	2261	0.0267	0.0436	0.1811	3046
450	700	0.353	90	924	80	1167	2514	5384	2455	0.0237	0.0388	0.1781	2895
500	736	0.393	90	960	80	1202	2591	5897	2642	0.0214	0.0349	0.1757	2774
600	813	0.471	90	1046	80	1311	2825	7030	3124	0.0178	0.0291	0.1735	2523
750	908	0.589	90	1141	80	1406	3030	8559	3677	0.0142	0.0233	0.1686	2293
1000	1060	0.785	90	1293	80	1558	3357	11101	4592	0.0107	0.0175	0.1623	2002

Notes:
1. DC resistance calculated based on a 10.371 ohm-cmil/ft resistivity for cooper and 16.946 ohm-cmil/ft for aluminum.
2. Inductive and capacitive reactance at 60 Hz.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

MV-90 8 kV Triplexed conductors, 90°C (International Unit System) 100% Insulation Level

Standards: UL 1072. Medium Voltage Power Cables MV90, ICEA S-97-682
Standard for Utility Shielded Power Cables Rated 5000 To 46000 Volts.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (mm²)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	JACKET THICKNESS (mm)	JACKET DIAMETER (mm)	DIAMETER OVER TRANDED PHASE (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)		DC RESISTANT AT 20°C[1] (ohm/km)		INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
								COPPER	ALUMINUM	COPPER	ALUMINUM		
6	4.29	13.3	2.92	11.05	1.52	16.18	34.87	1116	862	1.34	2.18	0.1765	16338
4	5.41	21.2	2.92	12.17	1.52	17.30	37.29	1410	1006	0.840	1.37	0.1641	14169
2	6.81	33.6	2.92	13.57	1.52	18.70	40.30	1852	1209	0.528	0.863	0.1526	12171
1	7.59	42.4	2.92	14.35	1.52	19.48	41.98	2143	1332	0.419	0.684	0.1442	11291
1/0	8.53	53.5	2.92	15.29	1.52	20.42	44.01	2512	1490	0.332	0.543	0.1390	10388
2/0	9.55	67.4	2.92	16.31	2.03	22.46	48.41	3121	1832	0.263	0.430	0.1376	9562
3/0	10.74	85.0	2.92	17.50	2.03	23.65	50.97	3696	2070	0.209	0.341	0.1327	8752
4/0	12.07	107.2	2.92	18.83	2.03	24.98	53.84	4408	2359	0.166	0.271	0.1280	7997
250	13.21	126.7	2.92	20.21	2.03	26.36	56.81	5063	2642	0.140	0.229	0.1243	7341
300	14.48	152.0	2.92	21.48	2.03	27.63	59.55	5859	2953	0.117	0.191	0.1209	6827
350	15.65	177.3	2.92	22.65	2.03	28.80	62.07	6647	3257	0.100	0.164	0.1182	6414
400	16.74	202.7	2.92	23.74	2.03	29.89	64.42	7429	3555	0.0876	0.143	0.1159	6071
450	17.78	228.0	2.92	24.78	2.03	30.93	66.66	8207	3849	0.0779	0.127	0.1139	5778
500	18.69	253.4	2.92	25.69	2.03	32.42	69.87	9086	4243	0.0701	0.115	0.1137	5543
600	20.65	304.0	2.92	27.87	2.03	34.60	74.57	10678	4866	0.0584	0.0955	0.1107	5052
750	23.06	380.0	2.92	30.28	2.03	37.01	79.76	12967	5703	0.0467	0.0764	0.1074	4601
1000	26.92	506.7	2.92	34.14	2.03	40.87	88.08	16772	7086	0.0351	0.0573	0.1033	4027

Notes:
1. DC resistance calculated based on a 17.241 ohm-mm2/km resistivity for cooper and 28.172 ohm-mm²/km for aluminum.
2. Inductive and capacitive reactance at 60 Hz.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

MV-90 8 kV Triplexed conductors, 90°C 100% Insulation Level

Standards: UL 1072. Medium Voltage Power Cables MV90, ICEA S-97-682
Standard for Utility Shielded Power Cables Rated 5000 To 46000 Volts.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (sq inches)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	JACKET THICKNESS (mm)	JACKET DIAMETER (mm)	DIAMETER OVER TRANDED PHASE (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)		DC RESISTANT AT 20°C[1] (ohm/km)		INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
								COPPER	ALUMINUM	COPPER	ALUMINUM		
6	169	0.0206	115	435	60	637	1373	750	579	0.407	0.665	0.2840	10152
4	213	0.0328	115	479	60	681	1468	948	676	0.256	0.418	0.2640	8804
2	268	0.0521	115	534	60	736	1587	1245	813	0.161	0.263	0.2455	7563
1	299	0.0657	115	565	60	767	1653	1440	895	0.128	0.209	0.2321	7016
1/0	336	0.0829	115	602	60	804	1733	1688	1001	0.101	0.165	0.2237	6455
2/0	376	0.105	115	642	80	884	1906	2097	1231	0.0803	0.131	0.2215	5942
3/0	423	0.132	115	689	80	931	2007	2484	1391	0.0637	0.104	0.2135	5438
4/0	475	0.166	115	741	80	984	2120	2962	1585	0.0505	0.0825	0.2060	4969
250	520	0.196	115	796	80	1038	2237	3403	1775	0.0427	0.0698	0.2000	4562
300	570	0.236	115	846	80	1088	2344	3938	1985	0.0356	0.0582	0.1945	4242
350	616	0.275	115	892	80	1134	2444	4467	2189	0.0305	0.0499	0.1901	3985
400	659	0.314	115	935	80	1177	2536	4993	2389	0.0267	0.0436	0.1865	3773
450	700	0.353	115	976	80	1218	2624	5516	2586	0.0237	0.0388	0.1833	3590
500	736	0.393	115	1011	80	1276	2751	6106	2852	0.0214	0.0349	0.1830	3444
600	813	0.471	115	1097	80	1362	2936	7176	3270	0.0178	0.0291	0.1781	3139
750	908	0.589	115	1192	80	1457	3140	8714	3832	0.0142	0.0233	0.1729	2859
1000	1060	0.785	115	1344	80	1609	3468	11271	4762	0.0107	0.0175	0.1662	2502

Notes:
1. DC resistance calculated based on a 10.371 ohm-cmil/ft resistivity for cooper and 16.946 ohm-cmil/ft for aluminum.
2. Inductive and capacitive reactance at 60 Hz.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

MV-90 15 kV Triplexed conductors, 90°C (International Unit System) 100% Insulation Level

Standards: UL 1072. Medium Voltage Power Cables MV90, ICEA S-97-682
Standard for Utility Shielded Power Cables Rated 5000 To 46000 Volts.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (mm²)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	JACKET THICKNESS (mm)	JACKET DIAMETER (mm)	DIAMETER OVER TRANDED PHASE (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)		DC RESISTANT AT 20°C[1] (ohm/km)		INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
								COPPER	ALUMINUM	COPPER	ALUMINUM		
2	6.81	33.6	4.45	16.63	2.03	22.78	49.10	2326	1683	0.528	0.863	0.1675	16393
1	7.59	42.4	4.45	17.41	2.03	23.56	50.78	2633	1822	0.419	0.684	0.1586	15303
1/0	8.53	53.5	4.45	18.35	2.03	24.50	52.80	3022	1999	0.332	0.543	0.1527	14175
2/0	9.55	67.4	4.45	19.37	2.03	25.52	55.00	3497	2208	0.263	0.430	0.1473	13131
3/0	10.74	85.0	4.45	20.56	2.03	26.71	57.57	4088	2463	0.209	0.341	0.1419	12097
4/0	12.07	107.2	4.45	21.89	2.03	28.04	60.43	4818	2769	0.166	0.271	0.1367	11123
250	13.21	126.7	4.45	23.27	2.03	29.42	63.41	5492	3071	0.140	0.229	0.1325	10268
300	14.48	152.0	4.45	24.54	2.03	30.69	66.14	6305	3399	0.117	0.191	0.1288	9592
350	15.65	177.3	4.45	25.71	2.03	32.44	69.91	7219	3829	0.100	0.164	0.1271	9044
400	16.74	202.7	4.45	26.80	2.03	33.53	72.26	8019	4145	0.0876	0.143	0.1245	8588
450	17.78	228.0	4.45	27.84	2.03	34.57	74.50	8815	4456	0.0779	0.127	0.1223	8195
500	18.69	253.4	4.45	28.75	2.03	35.48	76.46	9598	4755	0.0701	0.115	0.1205	7879
600	20.65	304.0	4.45	30.93	2.03	37.66	81.16	11219	5407	0.0584	0.0955	0.1171	7214
750	23.06	380.0	4.45	33.34	2.03	40.07	86.36	13541	6276	0.0467	0.0764	0.1134	6600
1000	26.92	506.7	4.45	37.20	2.79	45.50	98.05	17878	8192	0.0351	0.0573	0.1113	5809

Notes:
1. DC resistance calculated based on a 17.241 ohm-mm2/km resistivity for cooper and 28.172 ohm-mm²/km for aluminum.
2. Inductive and capacitive reactance at 60 Hz.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

MV-90 15 kV Triplexed conductors, 90°C 100% Insulation Level

Standards: UL 1072. Medium Voltage Power Cables MV90, ICEA S-97-682
Standard for Utility Shielded Power Cables Rated 5000 To 46000 Volts.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (sq inches)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	JACKET THICKNESS (mm)	JACKET DIAMETER (mm)	DIAMETER OVER TRANDED PHASE (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)		DC RESISTANT AT 20°C[1] (ohm/km)		INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
								COPPER	ALUMINUM	COPPER	ALUMINUM		
2	268	0.0521	175	655	80	897	1933	1563	1131	0.161	0.263	0.2695	10186
1	299	0.0657	175	685	80	928	1999	1769	1225	0.128	0.209	0.2552	9509
1/0	336	0.0829	175	722	80	965	2079	2031	1344	0.101	0.165	0.2458	8808
2/0	376	0.105	175	763	80	1005	2165	2350	1484	0.0803	0.131	0.2370	8160
3/0	423	0.132	175	809	80	1052	2266	2747	1655	0.0637	0.104	0.2283	7517
4/0	475	0.166	175	862	80	1104	2379	3238	1861	0.0505	0.0825	0.2200	6912
250	520	0.196	175	916	80	1158	2496	3691	2064	0.0427	0.0698	0.2133	6381
300	570	0.236	175	966	80	1208	2604	4237	2284	0.0356	0.0582	0.2073	5960
350	616	0.275	175	1012	80	1277	2752	4852	2573	0.0305	0.0499	0.2046	5620
400	659	0.314	175	1055	80	1320	2845	5389	2786	0.0267	0.0436	0.2004	5337
450	700	0.353	175	1096	80	1361	2933	5924	2995	0.0237	0.0388	0.1968	5092
500	736	0.393	175	1132	80	1397	3010	6450	3196	0.0214	0.0349	0.1939	4896
600	813	0.471	175	1218	80	1483	3195	7539	3634	0.0178	0.0291	0.1884	4483
750	908	0.589	175	1313	80	1578	3400	9100	4218	0.0142	0.0233	0.1826	4101
1000	1060	0.785	175	1465	110	1791	3860	12015	5505	0.0107	0.0175	0.1792	3610

Notes:
1. DC resistance calculated based on a 10.371 ohm-cmil/ft resistivity for cooper and 16.946 ohm-cmil/ft for aluminum.
2. Inductive and capacitive reactance at 60 Hz.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

MV-90 25 kV Triplexed conductors, 90°C (International Unit System) 100% Insulation Level

Standards: UL 1072. Medium Voltage Power Cables MV90, ICEA S-97-682
Standard for Utility Shielded Power Cables Rated 5000 To 46000 Volts.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (mm²)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	JACKET THICKNESS (mm)	JACKET DIAMETER (mm)	DIAMETER OVER TRANDED PHASE (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)		DC RESISTANT AT 20°C[1] (ohm/km)		INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
								COPPER	ALUMINUM	COPPER	ALUMINUM		
1	7.59	42.4	6.60	21.67	2.03	27.82	59.96	3189	2378	0.419	0.684	0.1711	19847
1/0	8.53	53.5	6.60	22.61	2.03	28.76	61.98	3595	2573	0.332	0.543	0.1648	18509
2/0	9.55	67.4	6.60	23.63	2.03	29.78	64.18	4089	2800	0.263	0.430	0.1589	17258
3/0	10.74	85.0	6.60	24.82	2.03	30.97	66.75	4703	3077	0.209	0.341	0.1530	16006
4/0	12.07	107.2	6.60	26.15	2.03	32.88	70.86	5570	3520	0.166	0.271	0.1487	14814
250	13.21	126.7	6.60	27.53	2.03	34.26	73.84	6274	3852	0.140	0.229	0.1440	13758
300	14.48	152.0	6.60	28.80	2.03	35.53	76.57	7114	4208	0.117	0.191	0.1398	12915
350	15.65	177.3	6.60	29.97	2.03	36.70	79.09	7944	4554	0.100	0.164	0.1364	12227
400	16.74	202.7	6.60	31.06	2.03	37.79	81.44	8764	4890	0.0876	0.143	0.1336	11651
450	17.78	228.0	6.60	32.10	2.03	38.83	83.68	9579	5220	0.0779	0.127	0.1311	11150
500	18.69	253.4	6.60	33.01	2.03	39.74	85.64	10379	5536	0.0701	0.115	0.1290	10747
600	20.65	304.0	6.60	35.19	2.79	43.49	93.72	12500	6688	0.0584	0.0955	0.1279	9893
750	23.06	380.0	6.60	37.60	2.79	45.90	98.91	14893	7628	0.0467	0.0764	0.1237	9096

Notes:
1. DC resistance calculated based on a 17.241 ohm-mm2/km resistivity for cooper and 28.172 ohm-mm²/km for aluminum.
2. Inductive and capacitive reactance at 60 Hz.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

MV-90 25 kV Triplexed conductors, 90°C 100% Insulation Level

Standards: UL 1072. Medium Voltage Power Cables MV90, ICEA S-97-682
Standard for Utility Shielded Power Cables Rated 5000 To 46000 Volts.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (sq inches)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	JACKET THICKNESS (mm)	JACKET DIAMETER (mm)	DIAMETER OVER TRANDED PHASE (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)		DC RESISTANT AT 20°C[1] (ohm/km)		INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
								COPPER	ALUMINUM	COPPER	ALUMINUM		
1	299	0.0657	260	853	80	1095	2361	2143	1598	0.128	0.209	0.2753	12333
1/0	336	0.0829	260	890	80	1132	2440	2416	1729	0.101	0.165	0.2652	11501
2/0	376	0.105	260	930	80	1173	2527	2748	1882	0.0803	0.131	0.2557	10724
3/0	423	0.132	260	977	80	1219	2628	3160	2068	0.0637	0.104	0.2462	9946
4/0	475	0.166	260	1030	80	1295	2790	3743	2366	0.0505	0.0825	0.2393	9205
250	520	0.196	260	1084	80	1349	2907	4216	2589	0.0427	0.0698	0.2318	8549
300	570	0.236	260	1134	80	1399	3015	4781	2828	0.0356	0.0582	0.2251	8025
350	616	0.275	260	1180	80	1445	3114	5338	3060	0.0305	0.0499	0.2196	7598
400	659	0.314	260	1223	80	1488	3206	5890	3286	0.0267	0.0436	0.2149	7240
450	700	0.353	260	1264	80	1529	3295	6437	3508	0.0237	0.0388	0.2109	6929
500	736	0.393	260	1300	80	1565	3372	6975	3721	0.0214	0.0349	0.2077	6678
600	813	0.471	260	1385	110	1712	3690	8401	4495	0.0178	0.0291	0.2059	6147
750	908	0.589	260	1480	110	1807	3894	10009	5127	0.0142	0.0233	0.1990	5652

Notes:
1. DC resistance calculated based on a 10.371 ohm-cmil/ft resistivity for cooper and 16.946 ohm-cmil/ft for aluminum.
2. Inductive and capacitive reactance at 60 Hz.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

MV-90 35 kV Triplexed conductors, 90°C (International Unit System) 100% Insulation Level

Standards: UL 1072. Medium Voltage Power Cables MV90, ICEA S-97-682
Standard for Utility Shielded Power Cables Rated 5000 To 46000 Volts.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (mm²)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	JACKET THICKNESS (mm)	JACKET DIAMETER (mm)	DIAMETER OVER TRANDED PHASE (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)		DC RESISTANT AT 20°C[1] (ohm/km)		INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
								COPPER	ALUMINUM	COPPER	ALUMINUM		
1/0	8.53	53.5	8.76	26.97	2.03	33.70	72.63	4379	3356	0.332	0.543	0.1767	22170
2/0	9.55	67.4	8.76	27.99	2.03	34.72	74.83	4896	3607	0.263	0.430	0.1705	20773
3/0	10.74	85.0	8.76	29.18	2.03	35.91	77.39	5536	3910	0.209	0.341	0.1642	19366
4/0	12.07	107.2	8.76	30.51	2.03	37.24	80.26	6320	4271	0.166	0.271	0.1581	18016
250	13.21	126.7	8.76	31.89	2.03	38.62	83.23	7051	4629	0.140	0.229	0.1531	16810
300	14.48	152.0	8.76	33.16	2.03	39.89	85.97	7916	5010	0.117	0.191	0.1486	15841
350	15.65	177.3	8.76	34.33	2.03	41.06	88.49	8767	5377	0.100	0.164	0.1449	15047
400	16.74	202.7	8.76	35.42	2.03	42.15	90.84	9609	5734	0.0876	0.143	0.1418	14378
450	17.78	228.0	8.76	36.46	2.03	43.19	93.08	10443	6085	0.0779	0.127	0.1391	13794
500	18.69	253.4	8.76	37.37	2.03	44.10	95.04	11261	6418	0.0701	0.115	0.1369	13323

Notes: 1. DC resistance calculated based on a 17.241 ohm-mm2/km resistivity for cooper and 28.172 ohm-mm²/km for aluminum.
2. Inductive and capacitive reactance at 60 Hz.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

MV-90 35 kV Triplexed conductors, 90°C 100% Insulation Level

Standards: UL 1072. Medium Voltage Power Cables MV90, ICEA S-97-682
Standard for Utility Shielded Power Cables Rated 5000 To 46000 Volts.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (sq inches)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	JACKET THICKNESS (mm)	JACKET DIAMETER (mm)	DIAMETER OVER TRANDED PHASE (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)		DC RESISTANT AT 20°C[1] (ohm/km)		INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
								COPPER	ALUMINUM	COPPER	ALUMINUM		
1/0	336	0.0829	345	1062	80	1327	2859	2943	2256	0.101	0.165	0.2844	13776
2/0	376	0.105	345	1102	80	1367	2946	3290	2424	0.0803	0.131	0.2744	12908
3/0	423	0.132	345	1149	80	1414	3047	3720	2628	0.0637	0.104	0.2642	12034
4/0	475	0.166	345	1201	80	1466	3160	4248	2870	0.0505	0.0825	0.2544	11195
250	520	0.196	345	1256	80	1521	3277	4738	3111	0.0427	0.0698	0.2463	10446
300	570	0.236	345	1306	80	1571	3385	5320	3367	0.0356	0.0582	0.2391	9844
350	616	0.275	345	1352	80	1617	3484	5892	3614	0.0305	0.0499	0.2332	9350
400	659	0.314	345	1394	80	1660	3576	6457	3854	0.0267	0.0436	0.2282	8934
450	700	0.353	345	1435	80	1700	3665	7018	4089	0.0237	0.0388	0.2238	8572
500	736	0.393	345	1471	80	1736	3742	7568	4313	0.0214	0.0349	0.2203	8279

Notes: 1. DC resistance calculated based on a 10.371 ohm-cmil/ft resistivity for cooper and 16.946 ohm-cmil/ft for aluminum.
2. Inductive and capacitive reactance at 60 Hz.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

MV-90 5 - 35 kV Single Conductors

URD Type (Underground Residential Distribution)

Description

Copper or aluminum stranded, thermo set insulated.

Contruction

Conductor
Soft Copper or 1350-H19 aluminum, compact stranded.
Conductor Shield
Cross linked polyethylene semiconductor.
Insulation
Cross linked polyethylene XLPE.
Insulation shield
Cross linked polyethylene removable semiconductor.
Insulation and shields are applied by true triple extrusion process.
Metallic shield
Copper tape helically and overlapped applied over insulation shield, 2.5 mils (0.0635mm) thickness.
Jacket
Flame retardant polyvinyl chloride PVC.
Options
EPR or XLPE-TR (Tree retardant XLPE)
Copper wires metallic shield.
Polyethylene Jacket, PVC SR (Sunlight Resistant) Jacket, PVC Tray Cable type jacket.
Moisture barrier against longitudinally migration.

Characteristics

Operating Temperature
Normal continuous operation 90°C for wet or dry locations (105°C optional)

Overload 130°C
Short circuit 250°C

Rated Voltage

5, 8, 15, 25 and 35 kV.

Insulation Level

100% (133% and 173% optional).

Applications

Distribution of electric energy at Medium Voltage, installed at air, underground ducts, raceways, direct buried or tray cables.

Standards

CENTELSA's 5-35 kV three conductors are manufactured in accordance with the following standards:
ASTM B496, NTC-ICONTEC 2187. Compact round concentric lay stranded Copper Conductors.
ASTM B400, NTC-ICONTEC 4334. Compact round concentric lay stranded Aluminum 1350 Conductors.
UL 1072. Medium Voltage Power Cables MV90.
ICEA S-94-649 Standard for Concentric Neutral Cables Rated 5 – 46 kV
AEIC CS8. Specification for Extruded Dielectric, Shielded Power Cables Rated 5 through 46 kV.

Certifications

CENTELSA's 5-35 kV Single conductors are certified by:
UL 1072. File E167359.
ICONTEC (Colombia). NTC 2186 standard.
CIDET (Colombia). Cert. 00412. 15 kV Medium Voltage Copper, XLPE CIDET (Colombia). Cert. 00413. 35 kV Medium Voltage Copper, XLPE.
CIDET (Colombia). Cert. 00414. 15 kV Medium Voltage Copper, EPR CIDET (Colombia). Cert. 00415. 35 kV Medium Voltage Copper, EPR.

Note: Configurations and sizes herein not specified are available upon request.

MV-90 5 kV Single Copper conductor, 90°C (International Unit System) 100% Insulation Level, 33% Concentric Neutral

Standards: UL 1072. Medium Voltage Power Cables MV90, ICEA S-94-649 Standard for Concentric Neutral Cables Rated 5-46 kV.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (mm²)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	CONCENTRIC NEUTRAL				JACKET THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)	DC RESISTANT AT 20°C[1] (ohm/km)	INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
					STRANDS No.	STRANDS DIAMETER (mm)	CROSS SECTION (mm²)	DIAMETER No.						
8	3.40	8.4	2.29	8.86	6	1.29	7.9	13.22	1.14	15.74	311	2.10	0.4010	15795
6	4.29	13.3	2.29	9.75	6	1.29	7.9	14.11	1.52	17.42	402	1.32	0.3835	13740
4	5.41	21.2	2.29	10.87	6	1.29	7.9	15.23	1.52	18.54	494	0.831	0.3660	11824
2	6.81	33.6	2.29	12.27	9	1.29	11.8	16.63	1.52	19.94	671	0.523	0.3487	10081
1	7.59	42.4	2.29	13.05	11	1.29	14.4	17.41	1.52	20.72	788	0.415	0.3372	9319
1/0	8.53	53.5	2.29	13.99	14	1.29	18.3	18.35	1.52	21.66	943	0.329	0.3284	8544
2/0	9.55	67.4	2.29	15.01	18	1.29	23.6	19.37	1.52	22.68	1137	0.261	0.3199	7838
3/0	10.74	85.0	2.29	16.20	22	1.29	28.8	20.56	2.03	24.89	1424	0.207	0.3111	7150
4/0	12.07	107.2	2.29	17.53	28	1.29	36.7	21.89	2.03	26.22	1727	0.164	0.3023	6512
250	13.21	126.7	2.29	18.91	21	1.63	43.8	23.95	2.03	28.28	2010	0.139	0.2945	5961
300	14.48	152.0	2.29	20.18	25	1.63	52.1	25.22	2.03	29.55	2344	0.116	0.2875	5531
350	15.65	177.3	2.29	21.35	29	1.63	60.4	26.39	2.03	30.72	2677	0.0992	0.2817	5187
400	16.74	202.7	2.29	22.44	33	1.63	68.8	27.48	2.03	31.81	3007	0.0868	0.2766	4902
450	17.78	228.0	2.29	23.48	37	1.63	77.1	28.52	2.03	32.85	3337	0.0771	0.2721	4659
500	18.69	253.4	2.29	24.39	26	2.05	86.0	30.27	2.03	34.61	3677	0.0694	0.2683	4465
600	20.65	304.0	2.29	26.57	31	2.05	102.5	33.03	2.03	37.37	4380	0.0578	0.2604	4060
750	23.06	380.0	2.29	28.98	25	2.59	131.5	36.52	2.03	40.85	5404	0.0463	0.2521	3691
1000	26.92	506.7	2.29	32.84	32	2.59	168.3	40.38	2.03	44.71	6984	0.0347	0.2404	3221

Notes:
1. DC resistance calculated based on a 17.241 ohm-mm2/km resistivity for cooper and 28.172 ohm-mm2/km for aluminum.
2. Inductive and capacitive reactance at 60 Hz and a 19.5 cm separation between phases in flat configuration.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

MV-90 5 kV Single Copper conductor, 90°C
100% Insulation Level, 33% Concentric Neutral

Standards: UL 1072. Medium Voltage Power Cables MV90, ICEA S-94-649
Standard for Concentric Neutral Cables Rated 5-46 kV.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (sq inches)	CROSS SECTION (mm²)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	CONCENTRIC NEUTRAL				JACKET THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)	DC RESISTANT AT 20°C[1] (ohm/km)	INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
					STRANDS No.	STRANDS DIAMETER (mm)	CROSS SECTION (sq inches)	DIAMETER No.						
8	134	0.0130	90	349	6	51	0.0122	521	45	620	209	0.641	0.6454	9815
6	169	0.0206	90	384	6	51	0.0122	556	60	686	270	0.403	0.6172	8538
4	213	0.0328	90	428	6	51	0.0122	600	60	730	332	0.253	0.5890	7347
2	268	0.0521	90	483	9	51	0.0183	655	60	785	451	0.159	0.5611	6264
1	299	0.0657	90	514	11	51	0.0223	686	60	816	530	0.126	0.5427	5791
1/0	336	0.0829	90	551	14	51	0.0284	723	60	853	634	0.100	0.5285	5309
2/0	376	0.105	90	591	18	51	0.0365	763	60	893	764	0.0795	0.5148	4870
3/0	423	0.132	90	638	22	51	0.0446	810	80	980	957	0.0630	0.5006	4443
4/0	475	0.166	90	690	28	51	0.0568	862	80	1032	1160	0.0500	0.4864	4046
250	520	0.196	90	744	21	64	0.0678	943	80	1113	1351	0.0423	0.4739	3704
300	570	0.236	90	794	25	64	0.0808	993	80	1163	1575	0.0353	0.4627	3437
350	616	0.275	90	841	29	64	0.0937	1039	80	1209	1799	0.0302	0.4533	3223
400	659	0.314	90	883	33	64	0.107	1082	80	1252	2021	0.0264	0.4452	3046
450	700	0.353	90	924	37	64	0.120	1123	80	1293	2243	0.0235	0.4378	2895
500	736	0.393	90	960	26	81	0.133	1192	80	1362	2471	0.0212	0.4318	2774
600	813	0.471	90	1046	31	81	0.159	1301	80	1471	2944	0.0176	0.4191	2523
750	908	0.589	90	1141	25	102	0.204	1438	80	1608	3632	0.0141	0.4057	2293
1000	1060	0.785	90	1293	32	102	0.261	1590	80	1760	4693	0.0106	0.3869	2002

Notes:
1. DC resistance calculated based on a 10.371 ohm-cmil/ft resistivity for cooper and 16.946 ohm-cmil/ft for aluminum.
2. Inductive and capacitive reactance at 60 Hz and a 7.5 inches separation between phases in flat configuration.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

MV-90 8 kV Single Copper conductor, 90°C (International Unit System) 100% Insulation Level, 33% Concentric Neutral

Standards: UL 1072. Medium Voltage Power Cables MV90, ICEA S-94-649 Standard for Concentric Neutral Cables Rated 5-46 kV.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (mm²)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	CONCENTRIC NEUTRAL				JACKET THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)	DC RESISTANT AT 20°C [1] (ohm/km)	INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
					STRANDS No.	STRANDS DIAMETER (mm)	CROSS SECTION (mm²)	DIAMETER No.						
6	4.29	13.3	2.92	11.05	6	1.29	7.9	15.41	1.52	18.72	435	1.32	0.3835	16338
4	5.41	21.2	2.92	12.17	6	1.29	7.9	16.53	1.52	19.84	530	0.831	0.3660	14169
2	6.81	33.6	2.92	13.57	9	1.29	11.8	17.93	1.52	21.24	709	0.523	0.3487	12171
1	7.59	42.4	2.92	14.35	11	1.29	14.4	18.71	1.52	22.02	828	0.415	0.3372	11291
1/0	8.53	53.5	2.92	15.29	14	1.29	18.3	19.65	1.52	22.96	984	0.329	0.3284	10388
2/0	9.55	67.4	2.92	16.31	18	1.29	23.6	20.67	2.03	25.00	1237	0.261	0.3199	9562
3/0	10.74	85.0	2.92	17.50	22	1.29	28.8	21.86	2.03	26.19	1473	0.207	0.3111	8752
4/0	12.07	107.2	2.92	18.83	28	1.29	36.7	23.19	2.03	27.52	1778	0.164	0.3023	7997
250	13.21	126.7	2.92	20.21	21	1.63	43.8	25.25	2.03	29.58	2063	0.139	0.2945	7341
300	14.48	152.0	2.92	21.48	25	1.63	52.1	26.52	2.03	30.85	2400	0.116	0.2875	6827
350	15.65	177.3	2.92	22.65	29	1.63	60.4	27.69	2.03	32.02	2735	0.0992	0.2817	6414
400	16.74	202.7	2.92	23.74	33	1.63	68.8	28.78	2.03	33.11	3068	0.0868	0.2766	6071
450	17.78	228.0	2.92	24.78	37	1.63	77.1	29.82	2.03	34.15	3399	0.0771	0.2721	5778
500	18.69	253.4	2.92	25.69	26	2.05	86.0	32.15	2.03	36.49	3776	0.0694	0.2683	5543
600	20.65	304.0	2.92	27.87	31	2.05	102.5	34.33	2.03	38.67	4450	0.0578	0.2604	5052
750	23.06	380.0	2.92	30.28	25	2.59	131.5	37.82	2.03	42.15	5478	0.0463	0.2521	4601
1000	26.92	506.7	2.92	34.14	32	2.59	168.3	41.68	2.03	46.01	7065	0.0347	0.2404	4027

Notes:
1. DC resistance calculated based on a 17.241 ohm-mm2/km resistivity for cooper and 28.172 ohm-mm2/km for aluminum.
2. Inductive and capacitive reactance at 60 Hz and a 19.5 cm separation between phases in flat configuration.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

MV-90 8 kV Single Copper conductor, 90°C 100% Insulation Level, 33% Concentric Neutral

Standards: UL 1072. Medium Voltage Power Cables MV90, ICEA S-94-649 Standard for Concentric Neutral Cables Rated 5-46 kV.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (sq inches)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	CONCENTRIC NEUTRAL				JACKET THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)	DC RESISTANT AT 20°C[1] (ohm/km)	INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
					STRANDS No.	STRANDS DIAMETER (mm)	CROSS SECTION (sq inches)	DIAMETER No.						
6	169	0.0206	115	435	6	51	0.0122	607	60	737	292	0.403	0.6172	10152
4	213	0.0328	115	479	6	51	0.0122	651	60	781	356	0.253	0.5890	8804
2	268	0.0521	115	534	9	51	0.0183	706	60	836	477	0.159	0.5611	7563
1	299	0.0657	115	565	11	51	0.0223	737	60	867	556	0.126	0.5427	7016
1/0	336	0.0829	115	602	14	51	0.0284	774	60	904	661	0.100	0.5285	6455
2/0	376	0.105	115	642	18	51	0.0365	814	80	984	831	0.0795	0.5148	5942
3/0	423	0.132	115	689	22	51	0.0446	861	80	1031	990	0.0630	0.5006	5438
4/0	475	0.166	115	741	28	51	0.0568	913	80	1084	1195	0.0500	0.4864	4969
250	520	0.196	115	796	21	64	0.0678	994	80	1165	1387	0.0423	0.4739	4562
300	570	0.236	115	846	25	64	0.0808	1044	80	1215	1613	0.0353	0.4627	4242
350	616	0.275	115	892	29	64	0.0937	1090	80	1261	1838	0.0302	0.4533	3985
400	659	0.314	115	935	33	64	0.107	1133	80	1304	2062	0.0264	0.4452	3773
450	700	0.353	115	976	37	64	0.120	1174	80	1344	2284	0.0235	0.4378	3590
500	736	0.393	115	1011	26	81	0.133	1266	80	1436	2538	0.0212	0.4318	3444
600	813	0.471	115	1097	31	81	0.159	1352	80	1522	2990	0.0176	0.4191	3139
750	908	0.589	115	1192	25	102	0.204	1489	80	1659	3681	0.0141	0.4057	2859
1000	1060	0.785	115	1344	32	102	0.261	1641	80	1811	4748	0.0106	0.3869	2502

Notes:
1. DC resistance calculated based on a 10.371 ohm-cmil/ft resistivity for cooper and 16.946 ohm-cmil/ft for aluminum.
2. Inductive and capacitive reactance at 60 Hz and a 7.5 inches separation between phases in flat configuration.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

MV-90 15 kV Single Copper conductor, 90°C (International Unit System) 100% Insulation Level, 33% Concentric Neutral

Standards: UL 1072. Medium Voltage Power Cables MV90, ICEA S-94-649 Standard for Concentric Neutral Cables Rated 5-46 kV.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (mm^2)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	CONCENTRIC NEUTRAL				JACKET THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)	DC RESISTANT AT 20°C [1] (ohm/km)	INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
					STRANDS No.	STRANDS DIAMETER (mm)	CROSS SECTION (mm^2)	DIAMETER No.						
2	6.81	33.6	4.45	16.63	9	1.29	11.8	20.99	2.03	25.32	866	0.523	0.3487	16393
1	7.59	42.4	4.45	17.41	11	1.29	14.4	21.77	2.03	26.10	990	0.415	0.3372	15303
1/0	8.53	53.5	4.45	18.35	14	1.29	18.3	22.71	2.03	27.04	1152	0.329	0.3284	14175
2/0	9.55	67.4	4.45	19.37	18	1.29	23.6	23.73	2.03	28.06	1356	0.261	0.3199	13131
3/0	10.74	85.0	4.45	20.56	22	1.29	28.8	24.92	2.03	29.25	1597	0.207	0.3111	12097
4/0	12.07	107.2	4.45	21.89	28	1.29	36.7	26.25	2.03	30.58	1907	0.164	0.3023	11123
250	13.21	126.7	4.45	23.27	21	1.63	43.8	28.31	2.03	32.64	2199	0.139	0.2945	10268
300	14.48	152.0	4.45	24.54	25	1.63	52.1	29.58	2.03	33.91	2542	0.116	0.2875	9592
350	15.65	177.3	4.45	25.71	29	1.63	60.4	31.33	2.03	35.66	2917	0.0992	0.2817	9044
400	16.74	202.7	4.45	26.80	33	1.63	68.8	32.42	2.03	36.75	3256	0.0868	0.2766	8588
450	17.78	228.0	4.45	27.84	37	1.63	77.1	33.46	2.03	37.79	3593	0.0771	0.2721	8195
500	18.69	253.4	4.45	28.75	26	2.05	86.0	35.21	2.03	39.55	3940	0.0694	0.2683	7879
600	20.65	304.0	4.45	30.93	31	2.05	102.5	37.39	2.03	41.73	4622	0.0578	0.2604	7214
750	23.06	380.0	4.45	33.34	25	2.59	131.5	40.88	2.03	45.21	5661	0.0463	0.2521	6600
1000	26.92	506.7	4.45	37.20	32	2.59	168.3	44.74	2.79	50.63	7443	0.0347	0.2404	5809

Notes:
1. DC resistance calculated based on a 17.241 ohm-mm2/km resistivity for cooper and 28.172 ohm-mm2/km for aluminum.
2. Inductive and capacitive reactance at 60 Hz and a 19.5 cm separation between phases in flat configuration.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

MV-90 15 kV Single Copper conductor, 90°C 100% Insulation Level, 33% Concentric Neutral

Standards: UL 1072. Medium Voltage Power Cables MV90, ICEA S-94-649 Standard for Concentric Neutral Cables Rated 5-46 kV.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (sq inches)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	CONCENTRIC NEUTRAL				JACKET THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)	DC RESISTANT AT 20°C[1] (ohm/km)	INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
					STRANDS No.	STRANDS DIAMETER (mm)	CROSS SECTION (sq inches)	DIAMETER No.						
2	268	0.0521	175	655	9	51	0.0183	826	80	997	582	0.159	0.5611	10186
1	299	0.0657	175	685	11	51	0.0223	857	80	1028	665	0.126	0.5427	9509
1/0	336	0.0829	175	722	14	51	0.0284	894	80	1065	774	0.100	0.5285	8808
2/0	376	0.105	175	763	18	51	0.0365	934	80	1105	911	0.0795	0.5148	8160
3/0	423	0.132	175	809	22	51	0.0446	981	80	1152	1073	0.0630	0.5006	7517
4/0	475	0.166	175	862	28	51	0.0568	1034	80	1204	1282	0.0500	0.4864	6912
250	520	0.196	175	916	21	64	0.0678	1114	80	1285	1478	0.0423	0.4739	6381
300	570	0.236	175	966	25	64	0.0808	1164	80	1335	1708	0.0353	0.4627	5960
350	616	0.275	175	1012	29	64	0.0937	1233	80	1404	1960	0.0302	0.4533	5620
400	659	0.314	175	1055	33	64	0.107	1276	80	1447	2188	0.0264	0.4452	5337
450	700	0.353	175	1096	37	64	0.120	1317	80	1488	2415	0.0235	0.4378	5092
500	736	0.393	175	1132	26	81	0.133	1386	80	1557	2648	0.0212	0.4318	4896
600	813	0.471	175	1218	31	81	0.159	1472	80	1643	3106	0.0176	0.4191	4483
750	908	0.589	175	1313	25	102	0.204	1609	80	1780	3805	0.0141	0.4057	4101
1000	1060	0.785	175	1465	32	102	0.261	1761	110	1993	5002	0.0106	0.3869	3610

Notes:
1. DC resistance calculated based on a 10.371 ohm-cmil/ft resistivity for cooper and 16.946 ohm-cmil/ft for aluminum.
2. Inductive and capacitive reactance at 60 Hz and a 7.5 inches separation between phases in flat configuration.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

MV-90 25 kV Single Copper conductor, 90°C (International Unit System) 100% Insulation Level, 33% Concentric Neutral

Standards: UL 1072. Medium Voltage Power Cables MV90, ICEA S-94-649 Standard for Concentric Neutral Cables Rated 5-46 kV.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (mm^2)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	CONCENTRIC NEUTRAL				JACKET THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)	DC RESISTANT AT 20°C[1] (ohm/km)	INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
					STRANDS No.	STRANDS DIAMETER (mm)	CROSS SECTION (mm^2)	DIAMETER No.						
1	7.59	42.4	6.60	21.67	11	1.29	14.4	26.03	2.03	30.36	1165	0.415	0.3372	19847
1/0	8.53	53.5	6.60	22.61	14	1.29	18.3	26.97	2.03	31.30	1334	0.329	0.3284	18509
2/0	9.55	67.4	6.60	23.63	18	1.29	23.6	27.99	2.03	32.32	1543	0.261	0.3199	17258
3/0	10.74	85.0	6.60	24.82	22	1.29	28.8	29.18	2.03	33.51	1791	0.207	0.3111	16006
4/0	12.07	107.2	6.60	26.15	28	1.29	36.7	31.09	2.03	35.42	2146	0.164	0.3023	14814
250	13.21	126.7	6.60	27.53	21	1.63	43.8	33.15	2.03	37.48	2448	0.139	0.2945	13758
300	14.48	152.0	6.60	28.80	25	1.63	52.1	34.42	2.03	38.75	2800	0.116	0.2875	12915
350	15.65	177.3	6.60	29.97	29	1.63	60.4	35.59	2.03	39.92	3148	0.0992	0.2817	12227
400	16.74	202.7	6.60	31.06	33	1.63	68.8	36.68	2.03	41.01	3493	0.0868	0.2766	11651
450	17.78	228.0	6.60	32.10	37	1.63	77.1	37.72	2.03	42.05	3837	0.0771	0.2721	11150
500	18.69	253.4	6.60	33.01	26	2.05	86.0	39.47	2.03	43.81	4189	0.0694	0.2683	10747
600	20.65	304.0	6.60	35.19	31	2.05	102.5	41.65	2.79	47.55	5052	0.0578	0.2604	9893
750	23.06	380.0	6.60	37.60	25	2.59	131.5	45.14	2.79	51.03	6118	0.0463	0.2521	9096
1000	26.92	506.7	6.60	41.46	32	2.59	168.3	49.86	2.79	55.75	7842	0.0347	0.2404	8060

Notes:
1. DC resistance calculated based on a 17.241 ohm-mm2/km resistivity for cooper and 28.172 ohm-mm2/km for aluminum.
2. Inductive and capacitive reactance at 60 Hz and a 19.5 cm separation between phases in flat configuration.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

MV-90 25 kV Single Copper conductor, 90°C 100% Insulation Level, 33% Concentric Neutral

Standards: UL 1072. Medium Voltage Power Cables MV90, ICEA S-94-649 Standard for Concentric Neutral Cables Rated 5-46 kV.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (sq inches)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	CONCENTRIC NEUTRAL				JACKET THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)	DC RESISTANT AT 20°C[1] (ohm/km)	INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
					STRANDS No.	STRANDS DIAMETER (mm)	CROSS SECTION (sq inches)	DIAMETER No.						
1	299	0.0657	260	853	11	51	0.0223	1025	80	1195	783	0.126	0.5427	12333
1/0	336	0.0829	260	890	14	51	0.0284	1062	80	1232	896	0.100	0.5285	11501
2/0	376	0.105	260	930	18	51	0.0365	1102	80	1273	1037	0.0795	0.5148	10724
3/0	423	0.132	260	977	22	51	0.0446	1149	80	1319	1204	0.0630	0.5006	9946
4/0	475	0.166	260	1030	28	51	0.0568	1224	80	1395	1442	0.0500	0.4864	9205
250	520	0.196	260	1084	21	64	0.0678	1305	80	1476	1645	0.0423	0.4739	8549
300	570	0.236	260	1134	25	64	0.0808	1355	80	1526	1882	0.0353	0.4627	8025
350	616	0.275	260	1180	29	64	0.0937	1401	80	1572	2116	0.0302	0.4533	7598
400	659	0.314	260	1223	33	64	0.107	1444	80	1615	2348	0.0264	0.4452	7240
450	700	0.353	260	1264	37	64	0.120	1485	80	1656	2579	0.0235	0.4378	6929
500	736	0.393	260	1300	26	81	0.133	1554	80	1725	2815	0.0212	0.4318	6678
600	813	0.471	260	1385	31	81	0.159	1640	110	1872	3395	0.0176	0.4191	6147
750	908	0.589	260	1480	25	102	0.204	1777	110	2009	4111	0.0141	0.4057	5652
1000	1060	0.785	260	1632	32	102	0.261	1963	110	2195	5270	0.0106	0.3869	5008

Notes:
1. DC resistance calculated based on a 10.371 ohm-cmil/ft resistivity for cooper and 16.946 ohm-cmil/ft for aluminum.
2. Inductive and capacitive reactance at 60 Hz and a 7.5 inches separation between phases in flat configuration.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

MV-90 35 kV Single Copper conductor, 90°C (International Unit System) 100% Insulation Level, 33% Concentric Neutral

Standards: UL 1072. Medium Voltage Power Cables MV90, ICEA S-94-649 Standard for Concentric Neutral Cables Rated 5-46 kV.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (mm²)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	CONCENTRIC NEUTRAL				JACKET THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)	DC RESISTANT AT 20°C[1] (ohm/km)	INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
					STRANDS No.	STRANDS DIAMETER (mm)	CROSS SECTION (mm²)	DIAMETER No.						
1/0	8.53	53.5	8.76	26.97	14	1.29	18.3	31.91	2.03	36.24	1583	0.329	0.3284	22170
2/0	9.55	67.4	8.76	27.99	18	1.29	23.6	32.93	2.03	37.26	1800	0.261	0.3199	20773
3/0	10.74	85.0	8.76	29.18	22	1.29	28.8	34.12	2.03	38.45	2057	0.207	0.3111	19366
4/0	12.07	107.2	8.76	30.51	28	1.29	36.7	35.45	2.03	39.78	2386	0.164	0.3023	18016
250	13.21	126.7	8.76	31.89	21	1.63	43.8	37.51	2.03	41.84	2696	0.139	0.2945	16810
300	14.48	152.0	8.76	33.16	25	1.63	52.1	38.78	2.03	43.11	3056	0.116	0.2875	15841
350	15.65	177.3	8.76	34.33	29	1.63	60.4	39.95	2.03	44.28	3412	0.0992	0.2817	15047
400	16.74	202.7	8.76	35.42	33	1.63	68.8	41.04	2.03	45.37	3764	0.0868	0.2766	14378
450	17.78	228.0	8.76	36.46	37	1.63	77.1	42.08	2.03	46.41	4114	0.0771	0.2721	13794
500	18.69	253.4	8.76	37.37	26	2.05	86.0	43.83	2.03	48.17	4472	0.0694	0.2683	13323
600	20.65	304.0	8.76	39.55	31	2.05	102.5	46.87	2.79	52.77	5443	0.0578	0.2604	12318
750	23.06	380.0	8.76	41.96	25	2.59	131.5	50.36	2.79	56.25	6528	0.0463	0.2521	11374
1000	26.92	506.7	8.76	45.82	32	2.59	168.3	54.22	2.79	60.11	8200	0.0347	0.2404	10136

Notes:
1. DC resistance calculated based on a 17.241 ohm-mm2/km resistivity for cooper and 28.172 ohm-mm2/km for aluminum.
2. Inductive and capacitive reactance at 60 Hz and a 19.5 cm separation between phases in flat configuration.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

MV-90 35 kV Single Copper conductor, 90°C 100% Insulation Level, 33% Concentric Neutral

Standards: UL 1072. Medium Voltage Power Cables MV90, ICEA S-94-649 Standard for Concentric Neutral Cables Rated 5-46 kV.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (sq inches)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	CONCENTRIC NEUTRAL				JACKET THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)	DC RESISTANT AT 20°C[1] (ohm/km)	INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
					STRANDS No.	STRANDS DIAMETER (mm)	CROSS SECTION (sq inches)	DIAMETER No.						
1/0	336	0.0829	345	1062	14	51	0.0284	1256	80	1427	1064	0.100	0.5285	13776
2/0	376	0.105	345	1102	18	51	0.0365	1297	80	1467	1210	0.0795	0.5148	12908
3/0	423	0.132	345	1149	22	51	0.0446	1343	80	1514	1382	0.0630	0.5006	12034
4/0	475	0.166	345	1201	28	51	0.0568	1396	80	1566	1603	0.0500	0.4864	11195
250	520	0.196	345	1256	21	64	0.0678	1477	80	1647	1812	0.0423	0.4739	10446
300	570	0.236	345	1306	25	64	0.0808	1527	80	1697	2054	0.0353	0.4627	9844
350	616	0.275	345	1352	29	64	0.0937	1573	80	1743	2293	0.0302	0.4533	9350
400	659	0.314	345	1394	33	64	0.107	1616	80	1786	2530	0.0264	0.4452	8934
450	700	0.353	345	1435	37	64	0.120	1657	80	1827	2765	0.0235	0.4378	8572
500	736	0.393	345	1471	26	81	0.133	1726	80	1896	3006	0.0212	0.4318	8279
600	813	0.471	345	1557	31	81	0.159	1845	110	2078	3658	0.0176	0.4191	7654
750	908	0.589	345	1652	25	102	0.204	1983	110	2215	4387	0.0141	0.4057	7068
1000	1060	0.785	345	1804	32	102	0.261	2134	110	2367	5511	0.0106	0.3869	6298

Notes:
1. DC resistance calculated based on a 10.371 ohm-cmil/ft resistivity for cooper and 16.946 ohm-cmil/ft for aluminum.
2. Inductive and capacitive reactance at 60 Hz and a 7.5 inches separation between phases in flat configuration.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

MV-90 5 kV Single Aluminum conductor, 90°C (International Unit System) 100% Insulation Level, 33% Concentric Neutral

Standards: UL 1072. Medium Voltage Power Cables MV90, ICEA S-94-649 Standard for Concentric Neutral Cables Rated 5-46 kV.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (mm²)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	CONCENTRIC NEUTRAL				JACKET THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)	DC RESISTANT AT 20°C[1] (ohm/km)	INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
					STRANDS No.	STRANDS DIAMETER (mm)	CROSS SECTION (mm²)	DIAMETER No.						
8	3.40	8.4	2.29	8.86	6	1.29	7.9	13.22	1.14	15.74	258	3.43	0.4010	15795
6	4.29	13.3	2.29	9.75	6	1.29	7.9	14.11	1.52	17.42	318	2.16	0.3835	13740
4	5.41	21.2	2.29	10.87	6	1.29	7.9	15.23	1.52	18.54	361	1.36	0.3660	11824
2	6.81	33.6	2.29	12.27	6	1.29	7.9	16.63	1.52	19.94	423	0.854	0.3487	10081
1	7.59	42.4	2.29	13.05	7	1.29	9.2	17.41	1.52	20.72	472	0.678	0.3372	9319
1/0	8.53	53.5	2.29	13.99	9	1.29	11.8	18.35	1.52	21.66	545	0.537	0.3284	8544
2/0	9.55	67.4	2.29	15.01	11	1.29	14.4	19.37	1.52	22.68	627	0.426	0.3199	7838
3/0	10.74	85.0	2.29	16.20	14	1.29	18.3	20.56	2.03	24.89	792	0.338	0.3111	7150
4/0	12.07	107.2	2.29	17.53	17	1.29	22.3	21.89	2.03	26.22	918	0.268	0.3023	6512
250	13.21	126.7	2.29	18.91	20	1.29	26.2	23.27	2.03	27.60	1042	0.227	0.2945	5961
300	14.48	152.0	2.29	20.18	24	1.29	31.4	24.54	2.03	28.87	1188	0.189	0.2875	5531
350	15.65	177.3	2.29	21.35	28	1.29	36.7	25.71	2.03	30.04	1333	0.162	0.2817	5187
400	16.74	202.7	2.29	22.44	32	1.29	41.9	26.80	2.03	31.13	1475	0.142	0.2766	4902
450	17.78	228.0	2.29	23.48	36	1.29	47.1	27.84	2.03	32.17	1616	0.126	0.2721	4659
500	18.69	253.4	2.29	24.39	25	1.63	52.1	29.43	2.03	33.76	1759	0.113	0.2683	4465
600	20.65	304.0	2.29	26.57	30	1.63	62.5	32.19	2.03	36.52	2086	0.0945	0.2604	4060
750	23.06	380.0	2.29	28.98	24	2.05	79.4	35.44	2.03	39.78	2516	0.0756	0.2521	3691
1000	26.92	506.7	2.29	32.84	31	2.05	102.5	39.30	2.03	43.64	3171	0.0567	0.2404	3221

Notes:
1. DC resistance calculated based on a 17.241 ohm-mm2/km resistivity for cooper and 28.172 ohm-mm2/km for aluminum.
2. Inductive and capacitive reactance at 60 Hz and a 19.5 cm separation between phases in flat configuration.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

MV-90 5 kV Single Aluminum conductor, 90°C 100% Insulation Level, 33% Concentric Neutral

Standards: UL 1072. Medium Voltage Power Cables MV90, ICEA S-94-649 Standard for Concentric Neutral Cables Rated 5-46 kV.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (sq inches)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	CONCENTRIC NEUTRAL				JACKET THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)	DC RESISTANT AT 20°C[1] (ohm/km)	INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
					STRANDS No.	STRANDS DIAMETER (mm)	CROSS SECTION (sq inches)	DIAMETER No.						
8	134	0.0130	90	349	6	51	0.0122	521	45	620	173	1.05	0.6454	9815
6	169	0.0206	90	384	6	51	0.0122	556	60	686	213	0.658	0.6172	8538
4	213	0.0328	90	428	6	51	0.0122	600	60	730	243	0.414	0.5890	7347
2	268	0.0521	90	483	6	51	0.0122	655	60	785	284	0.260	0.5611	6264
1	299	0.0657	90	514	7	51	0.0142	686	60	816	317	0.207	0.5427	5791
1/0	336	0.0829	90	551	9	51	0.0183	723	60	853	366	0.164	0.5285	5309
2/0	376	0.105	90	591	11	51	0.0223	763	60	893	422	0.130	0.5148	4870
3/0	423	0.132	90	638	14	51	0.0284	810	80	980	532	0.103	0.5006	4443
4/0	475	0.166	90	690	17	51	0.0345	862	80	1032	617	0.0817	0.4864	4046
250	520	0.196	90	744	20	51	0.0406	916	80	1087	700	0.0691	0.4739	3704
300	570	0.236	90	794	24	51	0.0487	966	80	1137	799	0.0576	0.4627	3437
350	616	0.275	90	841	28	51	0.0568	1012	80	1183	895	0.0494	0.4533	3223
400	659	0.314	90	883	32	51	0.0649	1055	80	1226	991	0.0432	0.4452	3046
450	700	0.353	90	924	36	51	0.0730	1096	80	1267	1086	0.0384	0.4378	2895
500	736	0.393	90	960	25	64	0.0808	1159	80	1329	1182	0.0346	0.4318	2774
600	813	0.471	90	1046	30	64	0.0969	1267	80	1438	1402	0.0288	0.4191	2523
750	908	0.589	90	1141	24	81	0.123	1395	80	1566	1691	0.0230	0.4057	2293
1000	1060	0.785	90	1293	31	81	0.159	1547	80	1718	2131	0.0173	0.3869	2002

Notes:
1. DC resistance calculated based on a 10.371 ohm-cmil/ft resistivity for cooper and 16.946 ohm-cmil/ft for aluminum.
2. Inductive and capacitive reactance at 60 Hz and a 7.5 inches separation between phases in flat configuration.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

MV-90 8 kV Single Aluminum conductor, 90°C (International Unit System) 100% Insulation Level, 33% Concentric Neutral

Standards: UL 1072. Medium Voltage Power Cables MV90, ICEA S-94-649
Standard for Concentric Neutral Cables Rated 5-46 kV.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (mm²)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	CONCENTRIC NEUTRAL				JACKET THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)	DC RESISTANT AT 20°C[1] (ohm/km)	INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
					STRANDS No.	STRANDS DIAMETER (mm)	CROSS SECTION (mm²)	DIAMETER No.						
6	4.29	13.3	2.92	11.05	6	1.29	7.9	15.41	1.52	18.72	351	2.16	0.3835	16338
4	5.41	21.2	2.92	12.17	6	1.29	7.9	16.53	1.52	19.84	396	1.36	0.3660	14169
2	6.81	33.6	2.92	13.57	6	1.29	7.9	17.93	1.52	21.24	461	0.854	0.3487	12171
1	7.59	42.4	2.92	14.35	7	1.29	9.2	18.71	1.52	22.02	512	0.678	0.3372	11291
1/0	8.53	53.5	2.92	15.29	9	1.29	11.8	19.65	1.52	22.96	586	0.537	0.3284	10388
2/0	9.55	67.4	2.92	16.31	11	1.29	14.4	20.67	2.03	25.00	727	0.426	0.3199	9562
3/0	10.74	85.0	2.92	17.50	14	1.29	18.3	21.86	2.03	26.19	840	0.338	0.3111	8752
4/0	12.07	107.2	2.92	18.83	17	1.29	22.3	23.19	2.03	27.52	969	0.268	0.3023	7997
250	13.21	126.7	2.92	20.21	20	1.29	26.2	24.57	2.03	28.90	1096	0.227	0.2945	7341
300	14.48	152.0	2.92	21.48	24	1.29	31.4	25.84	2.03	30.17	1244	0.189	0.2875	6827
350	15.65	177.3	2.92	22.65	28	1.29	36.7	27.01	2.03	31.34	1391	0.162	0.2817	6414
400	16.74	202.7	2.92	23.74	32	1.29	41.9	28.10	2.03	32.43	1535	0.142	0.2766	6071
450	17.78	228.0	2.92	24.78	36	1.29	47.1	29.14	2.03	33.47	1678	0.126	0.2721	5778
500	18.69	253.4	2.92	25.69	25	1.63	52.1	31.31	2.03	35.64	1858	0.113	0.2683	5543
600	20.65	304.0	2.92	27.87	30	1.63	62.5	33.49	2.03	37.82	2155	0.0945	0.2604	5052
750	23.06	380.0	2.92	30.28	24	2.05	79.4	36.74	2.03	41.08	2590	0.0756	0.2521	4601
1000	26.92	506.7	2.92	34.14	31	2.05	102.5	40.60	2.03	44.94	3252	0.0567	0.2404	4027

Notes:
1. DC resistance calculated based on a 17.241 ohm-mm2/km resistivity for cooper and 28.172 ohm-mm2/km for aluminum.
2. Inductive and capacitive reactance at 60 Hz and a 19.5 cm separation between phases in flat configuration.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

MV-90 8 kV Single Aluminum conductor, 90°C 100% Insulation Level, 33% Concentric Neutral

Standards: UL 1072. Medium Voltage Power Cables MV90, ICEA S-94-649
Standard for Concentric Neutral Cables Rated 5-46 kV.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (sq inches)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	CONCENTRIC NEUTRAL				JACKET THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)	DC RESISTANT AT 20°C[1] (ohm/km)	INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
					STRANDS No.	STRANDS DIAMETER (mm)	CROSS SECTION (sq inches)	DIAMETER No.						
6	169	0.0206	115	435	6	51	0.0122	607	60	737	236	0.658	0.6172	10152
4	213	0.0328	115	479	6	51	0.0122	651	60	781	266	0.414	0.5890	8804
2	268	0.0521	115	534	6	51	0.0122	706	60	836	310	0.260	0.5611	7563
1	299	0.0657	115	565	7	51	0.0142	737	60	867	344	0.207	0.5427	7016
1/0	336	0.0829	115	602	9	51	0.0183	774	60	904	394	0.164	0.5285	6455
2/0	376	0.105	115	642	11	51	0.0223	814	80	984	489	0.130	0.5148	5942
3/0	423	0.132	115	689	14	51	0.0284	861	80	1031	565	0.103	0.5006	5438
4/0	475	0.166	115	741	17	51	0.0345	913	80	1084	651	0.0817	0.4864	4969
250	520	0.196	115	796	20	51	0.0406	967	80	1138	736	0.0691	0.4739	4562
300	570	0.236	115	846	24	51	0.0487	1017	80	1188	836	0.0576	0.4627	4242
350	616	0.275	115	892	28	51	0.0568	1063	80	1234	935	0.0494	0.4533	3985
400	659	0.314	115	935	32	51	0.0649	1106	80	1277	1032	0.0432	0.4452	3773
450	700	0.353	115	976	36	51	0.0730	1147	80	1318	1128	0.0384	0.4378	3590
500	736	0.393	115	1011	25	64	0.0808	1233	80	1403	1249	0.0346	0.4318	3444
600	813	0.471	115	1097	30	64	0.0969	1318	80	1489	1449	0.0288	0.4191	3139
750	908	0.589	115	1192	24	81	0.123	1447	80	1617	1741	0.0230	0.4057	2859
1000	1060	0.785	115	1344	31	81	0.159	1599	80	1769	2186	0.0173	0.3869	2502

Notes:
1. DC resistance calculated based on a 10.371 ohm-cmil/ft resistivity for cooper and 16.946 ohm-cmil/ft for aluminum.
2. Inductive and capacitive reactance at 60 Hz and a 7.5 inches separation between phases in flat configuration.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

MV-90 15 kV Single Aluminum conductor, 90°C (International Unit System) 100% Insulation Level, 33% Concentric Neutral

Standards: UL 1072. Medium Voltage Power Cables MV90, ICEA S-94-649 Standard for Concentric Neutral Cables Rated 5-46 kV.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (mm²)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	CONCENTRIC NEUTRAL				JACKET THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)	DC RESISTANT AT 20°C[1] (ohm/km)	INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
					STRANDS No.	STRANDS DIAMETER (mm)	CROSS SECTION (mm²)	DIAMETER No.						
2	6.81	33.6	4.45	16.63	6	1.29	7.9	20.99	2.03	25.32	618	0.854	0.3487	16393
1	7.59	42.4	4.45	17.41	7	1.29	9.2	21.77	2.03	26.10	674	0.678	0.3372	15303
1/0	8.53	53.5	4.45	18.35	9	1.29	11.8	22.71	2.03	27.04	755	0.537	0.3284	14175
2/0	9.55	67.4	4.45	19.37	11	1.29	14.4	23.73	2.03	28.06	846	0.426	0.3199	13131
3/0	10.74	85.0	4.45	20.56	14	1.29	18.3	24.92	2.03	29.25	964	0.338	0.3111	12097
4/0	12.07	107.2	4.45	21.89	17	1.29	22.3	26.25	2.03	30.58	1098	0.268	0.3023	11123
250	13.21	126.7	4.45	23.27	20	1.29	26.2	27.63	2.03	31.96	1232	0.227	0.2945	10268
300	14.48	152.0	4.45	24.54	24	1.29	31.4	28.90	2.03	33.23	1386	0.189	0.2875	9592
350	15.65	177.3	4.45	25.71	28	1.29	36.7	30.65	2.03	34.98	1573	0.162	0.2817	9044
400	16.74	202.7	4.45	26.80	32	1.29	41.9	31.74	2.03	36.07	1723	0.142	0.2766	8588
450	17.78	228.0	4.45	27.84	36	1.29	47.1	32.78	2.03	37.11	1872	0.126	0.2721	8195
500	18.69	253.4	4.45	28.75	25	1.63	52.1	34.37	2.03	38.70	2021	0.113	0.2683	7879
600	20.65	304.0	4.45	30.93	30	1.63	62.5	36.55	2.03	40.88	2328	0.0945	0.2604	7214
750	23.06	380.0	4.45	33.34	24	2.05	79.4	39.80	2.03	44.14	2774	0.0756	0.2521	6600
1000	26.92	506.7	4.45	37.20	31	2.05	102.5	43.66	2.79	49.56	3626	0.0567	0.2404	5809

Notes:
1. DC resistance calculated based on a 17.241 ohm-mm2/km resistivity for cooper and 28.172 ohm-mm2/km for aluminum.
2. Inductive and capacitive reactance at 60 Hz and a 19.5 cm separation between phases in flat configuration.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

MV-90 15 kV Single Aluminum conductor, 90°C 100% Insulation Level, 33% Concentric Neutral

Standards: UL 1072. Medium Voltage Power Cables MV90, ICEA S-94-649 Standard for Concentric Neutral Cables Rated 5-46 kV.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (sq inches)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	CONCENTRIC NEUTRAL				JACKET THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)	DC RESISTANT AT 20°C[1] (ohm/km)	INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
					STRANDS No.	STRANDS DIAMETER (mm)	CROSS SECTION (sq inches)	DIAMETER No.						
2	268	0.0521	175	655	6	51	0.0122	826	80	997	415	0.260	0.5611	10186
1	299	0.0657	175	685	7	51	0.0142	857	80	1028	453	0.207	0.5427	9509
1/0	336	0.0829	175	722	9	51	0.0183	894	80	1065	507	0.164	0.5285	8808
2/0	376	0.105	175	763	11	51	0.0223	934	80	1105	568	0.130	0.5148	8160
3/0	423	0.132	175	809	14	51	0.0284	981	80	1152	648	0.103	0.5006	7517
4/0	475	0.166	175	862	17	51	0.0345	1034	80	1204	738	0.0817	0.4864	6912
250	520	0.196	175	916	20	51	0.0406	1088	80	1258	828	0.0691	0.4739	6381
300	570	0.236	175	966	24	51	0.0487	1138	80	1308	931	0.0576	0.4627	5960
350	616	0.275	175	1012	28	51	0.0568	1207	80	1377	1057	0.0494	0.4533	5620
400	659	0.314	175	1055	32	51	0.0649	1250	80	1420	1158	0.0432	0.4452	5337
450	700	0.353	175	1096	36	51	0.0730	1291	80	1461	1258	0.0384	0.4378	5092
500	736	0.393	175	1132	25	64	0.0808	1353	80	1524	1358	0.0346	0.4318	4896
600	813	0.471	175	1218	30	64	0.0969	1439	80	1609	1565	0.0288	0.4191	4483
750	908	0.589	175	1313	24	81	0.123	1567	80	1738	1864	0.0230	0.4057	4101
1000	1060	0.785	175	1465	31	81	0.159	1719	110	1951	2437	0.0173	0.3869	3610

Notes:
1. DC resistance calculated based on a 10.371 ohm-cmil/ft resistivity for cooper and 16.946 ohm-cmil/ft for aluminum.
2. Inductive and capacitive reactance at 60 Hz and a 7.5 inches separation between phases in flat configuration.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

MV-90 25 kV Single Aluminum conductor, 90°C (International Unit System) 100% Insulation Level, 33% Concentric Neutral

Standards: UL 1072. Medium Voltage Power Cables MV90, ICEA S-94-649
Standard for Concentric Neutral Cables Rated 5-46 kV.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (mm²)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	CONCENTRIC NEUTRAL				JACKET THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)	DC RESISTANT AT 20°C[1] (ohm/km)	INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
					STRANDS No.	STRANDS DIAMETER (mm)	CROSS SECTION (mm²)	DIAMETER No.						
1	7.59	42.4	6.60	21.67	7	1.29	9.2	26.03	2.03	30.36	849	0.678	0.3372	19847
1/0	8.53	53.5	6.60	22.61	9	1.29	11.8	26.97	2.03	31.30	936	0.537	0.3284	18509
2/0	9.55	67.4	6.60	23.63	11	1.29	14.4	27.99	2.03	32.32	1033	0.426	0.3199	17258
3/0	10.74	85.0	6.60	24.82	14	1.29	18.3	29.18	2.03	33.51	1159	0.338	0.3111	16006
4/0	12.07	107.2	6.60	26.15	17	1.29	22.3	31.09	2.03	35.42	1337	0.268	0.3023	14814
250	13.21	126.7	6.60	27.53	20	1.29	26.2	32.47	2.03	36.80	1481	0.227	0.2945	13758
300	14.48	152.0	6.60	28.80	24	1.29	31.4	33.74	2.03	38.07	1644	0.189	0.2875	12915
350	15.65	177.3	6.60	29.97	28	1.29	36.7	34.91	2.03	39.24	1804	0.162	0.2817	12227
400	16.74	202.7	6.60	31.06	32	1.29	41.9	36.00	2.03	40.33	1961	0.142	0.2766	11651
450	17.78	228.0	6.60	32.10	36	1.29	47.1	37.04	2.03	41.37	2116	0.126	0.2721	11150
500	18.69	253.4	6.60	33.01	25	1.63	52.1	38.63	2.03	42.96	2271	0.113	0.2683	10747
600	20.65	304.0	6.60	35.19	30	1.63	62.5	40.81	2.79	46.71	2755	0.0945	0.2604	9893
750	23.06	380.0	6.60	37.60	24	2.05	79.4	44.06	2.79	49.96	3227	0.0756	0.2521	9096
1000	26.92	506.7	6.60	41.46	31	2.05	102.5	48.78	2.79	54.68	4025	0.0567	0.2404	8060

Notes:
1. DC resistance calculated based on a 17.241 ohm-mm2/km resistivity for cooper and 28.172 ohm-mm2/km for aluminum.
2. Inductive and capacitive reactance at 60 Hz and a 19.5 cm separation between phases in flat configuration.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

MV-90 25 kV Single Aluminum conductor, 90°C 100% Insulation Level, 33% Concentric Neutral

Standards: UL 1072. Medium Voltage Power Cables MV90, ICEA S-94-649
Standard for Concentric Neutral Cables Rated 5-46 kV.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (sq inches)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	CONCENTRIC NEUTRAL				JACKET THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)	DC RESISTANT AT 20°C[1] (ohm/km)	INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
					STRANDS No.	STRANDS DIAMETER (mm)	CROSS SECTION (sq inches)	DIAMETER No.						
1	299	0.0657	260	853	7	51	0.0142	1025	80	1195	571	0.207	0.5427	12333
1/0	336	0.0829	260	890	9	51	0.0183	1062	80	1232	629	0.164	0.5285	11501
2/0	376	0.105	260	930	11	51	0.0223	1102	80	1273	694	0.130	0.5148	10724
3/0	423	0.132	260	977	14	51	0.0284	1149	80	1319	779	0.103	0.5006	9946
4/0	475	0.166	260	1030	17	51	0.0345	1224	80	1395	899	0.0817	0.4864	9205
250	520	0.196	260	1084	20	51	0.0406	1278	80	1449	995	0.0691	0.4739	8549
300	570	0.236	260	1134	24	51	0.0487	1328	80	1499	1105	0.0576	0.4627	8025
350	616	0.275	260	1180	28	51	0.0568	1374	80	1545	1212	0.0494	0.4533	7598
400	659	0.314	260	1223	32	51	0.0649	1417	80	1588	1318	0.0432	0.4452	7240
450	700	0.353	260	1264	36	51	0.0730	1458	80	1629	1422	0.0384	0.4378	6929
500	736	0.393	260	1300	25	64	0.0808	1521	80	1691	1526	0.0346	0.4318	6678
600	813	0.471	260	1385	30	64	0.0969	1607	110	1839	1851	0.0288	0.4191	6147
750	908	0.589	260	1480	24	81	0.123	1735	110	1967	2168	0.0230	0.4057	5652
1000	1060	0.785	260	1632	31	81	0.159	1921	110	2153	2705	0.0173	0.3869	5008

Notes:
1. DC resistance calculated based on a 10.371 ohm-cmil/ft resistivity for cooper and 16.946 ohm-cmil/ft for aluminum.
2. Inductive and capacitive reactance at 60 Hz and a 7.5 inches separation between phases in flat configuration.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

MV-90 35 kV Single Aluminum conductor, 90°C (International Unit System) 100% Insulation Level, 33% Concentric Neutral

Standards: UL 1072. Medium Voltage Power Cables MV90, ICEA S-94-649 Standard for Concentric Neutral Cables Rated 5-46 kV.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (mm²)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	CONCENTRIC NEUTRAL				JACKET THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)	DC RESISTANT AT 20°C[1] (ohm/km)	INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
					STRANDS No.	STRANDS DIAMETER (mm)	CROSS SECTION (mm²)	DIAMETER No.						
1/0	8.53	53.5	8.76	26.97	9	1.29	11.8	31.91	2.03	36.24	1185	0.537	0.3284	22170
2/0	9.55	67.4	8.76	27.99	11	1.29	14.4	32.93	2.03	37.26	1290	0.426	0.3199	20773
3/0	10.74	85.0	8.76	29.18	14	1.29	18.3	34.12	2.03	38.45	1424	0.338	0.3111	19366
4/0	12.07	107.2	8.76	30.51	17	1.29	22.3	35.45	2.03	39.78	1577	0.268	0.3023	18016
250	13.21	126.7	8.76	31.89	20	1.29	26.2	36.83	2.03	41.16	1729	0.227	0.2945	16810
300	14.48	152.0	8.76	33.16	24	1.29	31.4	38.10	2.03	42.43	1900	0.189	0.2875	15841
350	15.65	177.3	8.76	34.33	28	1.29	36.7	39.27	2.03	43.60	2067	0.162	0.2817	15047
400	16.74	202.7	8.76	35.42	32	1.29	41.9	40.36	2.03	44.69	2231	0.142	0.2766	14378
450	17.78	228.0	8.76	36.46	36	1.29	47.1	41.40	2.03	45.73	2393	0.126	0.2721	13794
500	18.69	253.4	8.76	37.37	25	1.63	52.1	42.99	2.03	47.32	2554	0.113	0.2683	13323
600	20.65	304.0	8.76	39.55	30	1.63	62.5	46.03	2.79	51.93	3146	0.0945	0.2604	12318
750	23.06	380.0	8.76	41.96	24	2.05	79.4	49.28	2.79	55.18	3636	0.0756	0.2521	11374
1000	26.92	506.7	8.76	45.82	31	2.05	102.5	53.14	2.79	59.04	4384	0.0567	0.2404	10136

Notes:
1. DC resistance calculated based on a 17.241 ohm-mm2/km resistivity for cooper and 28.172 ohm-mm2/km for aluminum.
2. Inductive and capacitive reactance at 60 Hz and a 19.5 cm separation between phases in flat configuration.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

MV-90 35 kV Single Aluminum conductor, 90°C 100% Insulation Level, 33% Concentric Neutral

Standards: UL 1072. Medium Voltage Power Cables MV90, ICEA S-94-649 Standard for Concentric Neutral Cables Rated 5-46 kV.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (sq inches)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	CONCENTRIC NEUTRAL				JACKET THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)	DC RESISTANT AT 20°C[1] (ohm/km)	INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
					STRANDS No.	STRANDS DIAMETER (mm)	CROSS SECTION (sq inches)	DIAMETER No.						
1/0	336	0.0829	345	1062	9	51	0.0183	1256	80	1427	797	0.164	0.5285	13776
2/0	376	0.105	345	1102	11	51	0.0223	1297	80	1467	867	0.130	0.5148	12908
3/0	423	0.132	345	1149	14	51	0.0284	1343	80	1514	957	0.103	0.5006	12034
4/0	475	0.166	345	1201	17	51	0.0345	1396	80	1566	1060	0.0817	0.4864	11195
250	520	0.196	345	1256	20	51	0.0406	1450	80	1621	1162	0.0691	0.4739	10446
300	570	0.236	345	1306	24	51	0.0487	1500	80	1671	1277	0.0576	0.4627	9844
350	616	0.275	345	1352	28	51	0.0568	1546	80	1717	1389	0.0494	0.4533	9350
400	659	0.314	345	1394	32	51	0.0649	1589	80	1760	1500	0.0432	0.4452	8934
450	700	0.353	345	1435	36	51	0.0730	1630	80	1801	1608	0.0384	0.4378	8572
500	736	0.393	345	1471	25	64	0.0808	1692	80	1863	1716	0.0346	0.4318	8279
600	813	0.471	345	1557	30	64	0.0969	1812	110	2044	2114	0.0288	0.4191	7654
750	908	0.589	345	1652	24	81	0.123	1940	110	2172	2444	0.0230	0.4057	7068
1000	1060	0.785	345	1804	31	81	0.159	2092	110	2324	2946	0.0173	0.3869	6298

Notes:
1. DC resistance calculated based on a 10.371 ohm-cmil/ft resistivity for cooper and 16.946 ohm-cmil/ft for aluminum.
2. Inductive and capacitive reactance at 60 Hz and a 7.5 inches separation between phases in flat configuration.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

MV-90 5 kV Single Copper conductor, 90°C (International Unit System) 100% Insulation Level, 100% Concentric Neutral

Standards: UL 1072. Medium Voltage Power Cables MV90, ICEA S-94-649
Standard for Concentric Neutral Cables Rated 5-46 kV.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (mm²)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	CONCENTRIC NEUTRAL				JACKET THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)	DC RESISTANT AT 20°C[1] (ohm/km)	INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
					STRANDS No.	STRANDS DIAMETER (mm)	CROSS SECTION (mm²)	DIAMETER No.						
8	3.40	8.4	2.29	8.86	6	1.29	7.9	13.22	1.14	15.74	311	2.10	0.4010	15795
6	4.29	13.3	2.29	9.75	10	1.29	13.1	14.11	1.52	17.42	450	1.32	0.3835	13740
4	5.41	21.2	2.29	10.87	16	1.29	20.9	15.23	1.52	18.54	615	0.831	0.3660	11824
2	6.81	33.6	2.29	12.27	26	1.29	34.0	16.63	1.52	19.94	876	0.523	0.3487	10081
1	7.59	42.4	2.29	13.05	20	1.63	41.7	18.09	1.52	21.40	1044	0.415	0.3372	9319
1/0	8.53	53.5	2.29	13.99	25	1.63	52.1	19.03	1.52	22.34	1258	0.329	0.3284	8544
2/0	9.55	67.4	2.29	15.01	32	1.63	66.7	20.05	1.52	23.36	1539	0.261	0.3199	7838
3/0	10.74	85.0	2.29	16.20	25	2.05	82.7	22.08	2.03	26.42	1935	0.207	0.3111	7150
4/0	12.07	107.2	2.29	17.53	32	2.05	105.8	23.41	2.03	27.75	2378	0.164	0.3023	6512

Notes:
1. DC resistance calculated based on a 17.241 ohm-mm2/km resistivity for cooper and 28.172 ohm-mm2/km for aluminum.
2. Inductive and capacitive reactance at 60 Hz and a 19.5 cm separation between phases in flat configuration.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

MV-90 5 kV Single Copper conductor, 90°C 100% Insulation Level, 100% Concentric Neutral

Standards: UL 1072. Medium Voltage Power Cables MV90, ICEA S-94-649
Standard for Concentric Neutral Cables Rated 5-46 kV.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (sq inches)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	CONCENTRIC NEUTRAL				JACKET THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)	DC RESISTANT AT 20°C[1] (ohm/km)	INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
					STRANDS No.	STRANDS DIAMETER (mm)	CROSS SECTION (sq inches)	DIAMETER No.						
8	134	0.0130	90	349	6	51	0.0122	521	45	620	209	0.641	0.6454	9815
6	169	0.0206	90	384	10	51	0.0203	556	60	686	302	0.403	0.6172	8538
4	213	0.0328	90	428	16	51	0.0325	600	60	730	413	0.253	0.5890	7347
2	268	0.0521	90	483	26	51	0.0528	655	60	785	589	0.159	0.5611	6264
1	299	0.0657	90	514	20	64	0.0646	712	60	843	702	0.126	0.5427	5791
1/0	336	0.0829	90	551	25	64	0.0808	749	60	880	846	0.100	0.5285	5309
2/0	376	0.105	90	591	32	64	0.103	789	60	920	1034	0.0795	0.5148	4870
3/0	423	0.132	90	638	25	81	0.128	869	80	1040	1300	0.0630	0.5006	4443
4/0	475	0.166	90	690	32	81	0.164	922	80	1092	1598	0.0500	0.4864	4046

Notes:
1. DC resistance calculated based on a 10.371 ohm-cmil/ft resistivity for cooper and 16.946 ohm-cmil/ft for aluminum.
2. Inductive and capacitive reactance at 60 Hz and a 7.5 inches separation between phases in flat configuration.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

MV-90 8 kV Single Copper conductor, 90°C (International Unit System) 100% Insulation Level, 100% Concentric Neutral

Standards: UL 1072. Medium Voltage Power Cables MV90, ICEA S-94-649 Standard for Concentric Neutral Cables Rated 5-46 kV.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (mm²)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	CONCENTRIC NEUTRAL				JACKET THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)	DC RESISTANT AT 20°C[1] (ohm/km)	INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
					STRANDS No.	STRANDS DIAMETER (mm)	CROSS SECTION (mm²)	DIAMETER No.						
6	4.29	13.3	2.92	11.05	10	1.29	13.1	15.41	1.52	18.72	483	1.32	0.3835	16338
4	5.41	21.2	2.92	12.17	16	1.29	20.9	16.53	1.52	19.84	650	0.831	0.3660	14169
2	6.81	33.6	2.92	13.57	26	1.29	34.0	17.93	1.52	21.24	914	0.523	0.3487	12171
1	7.59	42.4	2.92	14.35	20	1.63	41.7	19.39	1.52	22.70	1084	0.415	0.3372	11291
1/0	8.53	53.5	2.92	15.29	25	1.63	52.1	20.33	1.52	23.64	1300	0.329	0.3284	10388
2/0	9.55	67.4	2.92	16.31	32	1.63	66.7	21.35	2.03	25.68	1640	0.261	0.3199	9562
3/0	10.74	85.0	2.92	17.50	25	2.05	82.7	23.38	2.03	27.72	1983	0.207	0.3111	8752
4/0	12.07	107.2	2.92	18.83	32	2.05	105.8	24.71	2.03	29.05	2429	0.164	0.3023	7997

Notes:
1. DC resistance calculated based on a 17.241 ohm-mm2/km resistivity for cooper and 28.172 ohm-mm2/km for aluminum.
2. Inductive and capacitive reactance at 60 Hz and a 19.5 cm separation between phases in flat configuration.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

MV-90 8 kV Single Copper conductor, 90°C 100% Insulation Level, 100% Concentric Neutral

Standards: UL 1072. Medium Voltage Power Cables MV90, ICEA S-94-649 Standard for Concentric Neutral Cables Rated 5-46 kV.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (sq inches)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	CONCENTRIC NEUTRAL				JACKET THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)	DC RESISTANT AT 20°C[1] (ohm/km)	INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
					STRANDS No.	STRANDS DIAMETER (mm)	CROSS SECTION (sq inches)	DIAMETER No.						
6	169	0.0206	15	435	10	51	0.0203	607	60	737	325	0.403	0.6172	10152
4	213	0.0328	15	479	16	51	0.0325	651	60	781	437	0.253	0.5890	8804
2	268	0.0521	15	534	26	51	0.0528	706	60	836	614	0.159	0.5611	7563
1	299	0.0657	15	565	20	64	0.0646	763	60	894	728	0.126	0.5427	7016
1/0	336	0.0829	15	602	25	64	0.0808	800	60	931	874	0.100	0.5285	6455
2/0	376	0.105	15	642	32	64	0.103	840	80	1011	1102	0.0795	0.5148	5942
3/0	423	0.132	15	689	25	81	0.128	921	80	1091	1333	0.0630	0.5006	5438
4/0	475	0.166	15	741	32	81	0.164	973	80	1144	1632	0.0500	0.4864	4969

Notes:
1. DC resistance calculated based on a 10.371 ohm-cmil/ft resistivity for cooper and 16.946 ohm-cmil/ft for aluminum.
2. Inductive and capacitive reactance at 60 Hz and a 7.5 inches separation between phases in flat configuration.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

MV-90 15 kV Single Copper conductor, 90°C (International Unit System) 100% Insulation Level, 100% Concentric Neutral

Standards: UL 1072. Medium Voltage Power Cables MV90, ICEA S-94-649
Standard for Concentric Neutral Cables Rated 5-46 kV.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (mm²)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	CONCENTRIC NEUTRAL				JACKET THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)	DC RESISTANT AT 20°C[1] (ohm/km)	INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
					STRANDS No.	STRANDS DIAMETER (mm)	CROSS SECTION (mm²)	DIAMETER No.						
2	6.81	33.6	4.45	16.63	26	1.29	34.0	20.99	2.03	25.32	1071	0.523	0.3487	16393
1	7.59	42.4	4.45	17.41	20	1.63	41.7	22.45	2.03	26.78	1247	0.415	0.3372	15303
1/0	8.53	53.5	4.45	18.35	25	1.63	52.1	23.39	2.03	27.72	1470	0.329	0.3284	14175
2/0	9.55	67.4	4.45	19.37	32	1.63	66.7	24.41	2.03	28.74	1759	0.261	0.3199	13131
3/0	10.74	85.0	4.45	20.56	25	2.05	82.7	26.44	2.03	30.78	2107	0.207	0.3111	12097
4/0	12.07	107.2	4.45	21.89	32	2.05	105.8	27.77	2.03	32.11	2558	0.164	0.3023	11123

Notes:
1. DC resistance calculated based on a 17.241 ohm-mm2/km resistivity for cooper and 28.172 ohm-mm2/km for aluminum.
2. Inductive and capacitive reactance at 60 Hz and a 19.5 cm separation between phases in flat configuration.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

MV-90 15 kV Single Copper conductor, 90°C 100% Insulation Level, 100% Concentric Neutral

Standards: UL 1072. Medium Voltage Power Cables MV90, ICEA S-94-649
Standard for Concentric Neutral Cables Rated 5-46 kV.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (sq inches)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	CONCENTRIC NEUTRAL				JACKET THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)	DC RESISTANT AT 20°C[1] (ohm/km)	INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
					STRANDS No.	STRANDS DIAMETER (mm)	CROSS SECTION (sq inches)	DIAMETER No.						
2	268	0.0521	175	655	26	51	0.0528	826	80	997	719	0.159	0.5611	10186
1	299	0.0657	175	685	20	64	0.0646	884	80	1054	838	0.126	0.5427	9509
1/0	336	0.0829	175	722	25	64	0.0808	921	80	1091	988	0.100	0.5285	8808
2/0	376	0.105	175	763	32	64	0.103	961	80	1131	1182	0.0795	0.5148	8160
3/0	423	0.132	175	809	25	81	0.128	1041	80	1212	1416	0.0630	0.5006	7517
4/0	475	0.166	175	862	32	81	0.164	1093	80	1264	1719	0.0500	0.4864	6912

Notes:
1. DC resistance calculated based on a 10.371 ohm-cmil/ft resistivity for cooper and 16.946 ohm-cmil/ft for aluminum.
2. Inductive and capacitive reactance at 60 Hz and a 7.5 inches separation between phases in flat configuration.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

MV-90 25 kV Single Copper conductor, 90°C (International Unit System) 100% Insulation Level, 100% Concentric Neutral

Standards: UL 1072. Medium Voltage Power Cables MV90, ICEA S-94-649 Standard for Concentric Neutral Cables Rated 5-46 kV.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (mm²)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	CONCENTRIC NEUTRAL				JACKET THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)	DC RESISTANT AT 20°C[1] (ohm/km)	INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
					STRANDS No.	STRANDS DIAMETER (mm)	CROSS SECTION (mm²)	DIAMETER No.						
1	7.59	42.4	6.60	21.67	20	1.63	41.7	26.71	2.03	31.04	1423	0.415	0.3372	19847
1/0	8.53	53.5	6.60	22.61	25	1.63	52.1	27.65	2.03	31.98	1651	0.329	0.3284	18509
2/0	9.55	67.4	6.60	23.63	32	1.63	66.7	28.67	2.03	33.00	1946	0.261	0.3199	17258
3/0	10.74	85.0	6.60	24.82	25	2.05	82.7	30.70	2.03	35.04	2302	0.207	0.3111	16006
4/0	12.07	107.2	6.60	26.15	32	2.05	105.8	32.61	2.03	36.95	2797	0.164	0.3023	14814

Notes:
1. DC resistance calculated based on a 17.241 ohm-mm2/km resistivity for cooper and 28.172 ohm-mm2/km for aluminum.
2. Inductive and capacitive reactance at 60 Hz and a 19.5 cm separation between phases in flat configuration.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

MV-90 25 kV Single Copper conductor, 90°C 100% Insulation Level, 100% Concentric Neutral

Standards: UL 1072. Medium Voltage Power Cables MV90, ICEA S-94-649 Standard for Concentric Neutral Cables Rated 5-46 kV.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (sq inches)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	CONCENTRIC NEUTRAL				JACKET THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)	DC RESISTANT AT 20°C[1] (ohm/km)	INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
					STRANDS No.	STRANDS DIAMETER (mm)	CROSS SECTION (sq inches)	DIAMETER No.						
1	299	0.0657	260	853	20	64	0.0646	1051	80	1222	956	0.126	0.5427	12333
1/0	336	0.0829	260	890	25	64	0.0808	1089	80	1259	1109	0.100	0.5285	11501
2/0	376	0.105	260	930	32	64	0.103	1129	80	1299	1308	0.0795	0.5148	10724
3/0	423	0.132	260	977	25	81	0.128	1209	80	1379	1547	0.0630	0.5006	9946
4/0	475	0.166	260	1030	32	81	0.164	1284	80	1455	1880	0.0500	0.4864	9205

Notes:
1. DC resistance calculated based on a 10.371 ohm-cmil/ft resistivity for cooper and 16.946 ohm-cmil/ft for aluminum.
2. Inductive and capacitive reactance at 60 Hz and a 7.5 inches separation between phases in flat configuration.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

MV-90 35 kV Single Copper conductor, 90°C (International Unit System) 100% Insulation Level, 100% Concentric Neutral

Standards: UL 1072. Medium Voltage Power Cables MV90, ICEA S-94-649 Standard for Concentric Neutral Cables Rated 5-46 kV.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (mm²)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	CONCENTRIC NEUTRAL				JACKET THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)	DC RESISTANT AT 20°C[1] (ohm/km)	INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
					STRANDS No.	STRANDS DIAMETER (mm)	CROSS SECTION (mm²)	DIAMETER No.						
1/0	8.53	53.5	8.76	26.97	25	1.63	52.1	32.59	2.03	36.92	1900	0.329	0.3284	22170
2/0	9.55	67.4	8.76	27.99	32	1.63	66.7	33.61	2.03	37.94	2203	0.261	0.3199	20773
3/0	10.74	85.0	8.76	29.18	25	2.05	82.7	35.64	2.03	39.98	2568	0.207	0.3111	19366
4/0	12.07	107.2	8.76	30.51	32	2.05	105.8	36.97	2.03	41.31	3037	0.164	0.3023	18016

Notes:
1. DC resistance calculated based on a 17.241 ohm-mm2/km resistivity for cooper and 28.172 ohm-mm2/km for aluminum.
2. Inductive and capacitive reactance at 60 Hz and a 19.5 cm separation between phases in flat configuration.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

MV-90 35 kV Single Copper conductor, 90°C 100% Insulation Level, 100% Concentric Neutral

Standards: UL 1072. Medium Voltage Power Cables MV90, ICEA S-94-649 Standard for Concentric Neutral Cables Rated 5-46 kV.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (sq inches)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	CONCENTRIC NEUTRAL				JACKET THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)	DC RESISTANT AT 20°C[1] (ohm/km)	INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
					STRANDS No.	STRANDS DIAMETER (mm)	CROSS SECTION (sq inches)	DIAMETER No.						
1/0	336	0.0829	345	1062	25	64	0.0808	1283	80	1454	1277	0.100	0.5285	13776
2/0	376	0.105	345	1102	32	64	0.103	1323	80	1494	1481	0.0795	0.5148	12908
3/0	423	0.132	345	1149	25	81	0.128	1403	80	1574	1726	0.0630	0.5006	12034
4/0	475	0.166	345	1201	32	81	0.164	1456	80	1626	2041	0.0500	0.4864	11195

Notes:
1. DC resistance calculated based on a 10.371 ohm-cmil/ft resistivity for cooper and 16.946 ohm-cmil/ft for aluminum.
2. Inductive and capacitive reactance at 60 Hz and a 7.5 inches separation between phases in flat configuration.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

MV-90 5 kV Single Aluminum conductor, 90°C (International Unit System) 100% Insulation Level, 100% Concentric Neutral

Standards: UL 1072. Medium Voltage Power Cables MV90, ICEA S-94-649 Standard for Concentric Neutral Cables Rated 5-46 kV.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (mm²)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	CONCENTRIC NEUTRAL				JACKET THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)	DC RESISTANT AT 20°C[1] (ohm/km)	INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
					STRANDS No.	STRANDS DIAMETER (mm)	CROSS SECTION (mm²)	DIAMETER No.						
4	5.41	21.2	2.29	10.87	10	1.29	13.1	15.23	1.52	18.54	409	1.36	0.3660	11824
2	6.81	33.6	2.29	12.27	16	1.29	20.9	16.63	1.52	19.94	543	0.854	0.3487	10081
1	7.59	42.4	2.29	13.05	20	1.29	26.2	17.41	1.52	20.72	629	0.678	0.3372	9319
1/0	8.53	53.5	2.29	13.99	26	1.29	34.0	18.35	1.52	21.66	750	0.537	0.3284	8544
2/0	9.55	67.4	2.29	15.01	20	1.63	41.7	20.05	1.52	23.36	883	0.426	0.3199	7838
3/0	10.74	85.0	2.29	16.20	25	1.63	52.1	21.24	2.03	25.57	1109	0.338	0.3111	7150
4/0	12.07	107.2	2.29	17.53	32	1.63	66.7	22.57	2.03	26.90	1333	0.268	0.3023	6512
250	13.21	126.7	2.29	18.91	25	2.05	82.7	24.79	2.03	29.13	1577	0.227	0.2945	5961
300	14.48	152.0	2.29	20.18	29	2.05	95.9	26.06	2.03	30.40	1796	0.189	0.2875	5531
350	15.65	177.3	2.29	21.35	32	2.05	105.8	27.23	2.03	31.57	1984	0.162	0.2817	5187

Notes:
1. DC resistance calculated based on a 17.241 ohm-mm2/km resistivity for cooper and 28.172 ohm-mm2/km for aluminum.
2. Inductive and capacitive reactance at 60 Hz and a 19.5 cm separation between phases in flat configuration.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

MV-90 5 kV Single Aluminum conductor, 90°C 100% Insulation Level, 100% Concentric Neutral

Standards: UL 1072. Medium Voltage Power Cables MV90, ICEA S-94-649 Standard for Concentric Neutral Cables Rated 5-46 kV.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (sq inches)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	CONCENTRIC NEUTRAL				JACKET THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)	DC RESISTANT AT 20°C[1] (ohm/km)	INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
					STRANDS No.	STRANDS DIAMETER (mm)	CROSS SECTION (sq inches)	DIAMETER No.						
4	213	0.0328	90	428	10	51	0.0203	600	60	730	275	0.414	0.5890	7347
2	268	0.0521	90	483	16	51	0.0325	655	60	785	365	0.260	0.5611	6264
1	299	0.0657	90	514	20	51	0.0406	686	60	816	423	0.207	0.5427	5791
1/0	336	0.0829	90	551	26	51	0.0528	723	60	853	504	0.164	0.5285	5309
2/0	376	0.105	90	591	20	64	0.0646	789	60	920	594	0.130	0.5148	4870
3/0	423	0.132	90	638	25	64	0.0808	836	80	1007	745	0.103	0.5006	4443
4/0	475	0.166	90	690	32	64	0.103	889	80	1059	896	0.0817	0.4864	4046
250	520	0.196	90	744	25	81	0.128	976	80	1147	1060	0.0691	0.4739	3704
300	570	0.236	90	794	29	81	0.149	1026	80	1197	1207	0.0576	0.4627	3437
350	616	0.275	90	841	32	81	0.164	1072	80	1243	1333	0.0494	0.4533	3223

Notes:
1. DC resistance calculated based on a 10.371 ohm-cmil/ft resistivity for cooper and 16.946 ohm-cmil/ft for aluminum.
2. Inductive and capacitive reactance at 60 Hz and a 7.5 inches separation between phases in flat configuration.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

MV-90 8 kV Single Aluminum conductor, 90°C (International Unit System) 100% Insulation Level, 100% Concentric Neutral

Standards: UL 1072. Medium Voltage Power Cables MV90, ICEA S-94-649
Standard for Concentric Neutral Cables Rated 5-46 kV.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (mm²)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	CONCENTRIC NEUTRAL				JACKET THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)	DC RESISTANT AT 20°C[1] (ohm/km)	INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
					STRANDS No.	STRANDS DIAMETER (mm)	CROSS SECTION (mm²)	DIAMETER No.						
4	5.41	21.2	2.92	12.17	10	1.29	13.1	16.53	1.52	19.84	445	1.36	0.3660	14169
2	6.81	33.6	2.92	13.57	16	1.29	20.9	17.93	1.52	21.24	581	0.854	0.3487	12171
1	7.59	42.4	2.92	14.35	20	1.29	26.2	18.71	1.52	22.02	669	0.678	0.3372	11291
1/0	8.53	53.5	2.92	15.29	26	1.29	34.0	19.65	1.52	22.96	791	0.537	0.3284	10388
2/0	9.55	67.4	2.92	16.31	20	1.63	41.7	21.35	2.03	25.68	985	0.426	0.3199	9562
3/0	10.74	85.0	2.92	17.50	25	1.63	52.1	22.54	2.03	26.87	1157	0.338	0.3111	8752
4/0	12.07	107.2	2.92	18.83	32	1.63	66.7	23.87	2.03	28.20	1384	0.268	0.3023	7997
250	13.21	126.7	2.92	20.21	25	2.05	82.7	26.09	2.03	30.43	1630	0.227	0.2945	7341
300	14.48	152.0	2.92	21.48	29	2.05	95.9	27.36	2.03	31.70	1852	0.189	0.2875	6827
350	15.65	177.3	2.92	22.65	32	2.05	105.8	28.53	2.03	32.87	2042	0.162	0.2817	6414

Notes:
1. DC resistance calculated based on a 17.241 ohm-mm2/km resistivity for cooper and 28.172 ohm-mm2/km for aluminum.
2. Inductive and capacitive reactance at 60 Hz and a 19.5 cm separation between phases in flat configuration.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

MV-90 8 kV Single Aluminum conductor, 90°C 100% Insulation Level, 100% Concentric Neutral

Standards: UL 1072. Medium Voltage Power Cables MV90, ICEA S-94-649
Standard for Concentric Neutral Cables Rated 5-46 kV.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (sq inches)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	CONCENTRIC NEUTRAL				JACKET THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)	DC RESISTANT AT 20°C[1] (ohm/km)	INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
					STRANDS No.	STRANDS DIAMETER (mm)	CROSS SECTION (sq inches)	DIAMETER No.						
4	213	0.0328	115	479	10	51	0.0203	651	60	781	299	0.414	0.5890	8804
2	268	0.0521	115	534	16	51	0.0325	706	60	836	391	0.260	0.5611	7563
1	299	0.0657	115	565	20	51	0.0406	737	60	867	449	0.207	0.5427	7016
1/0	336	0.0829	115	602	26	51	0.0528	774	60	904	532	0.164	0.5285	6455
2/0	376	0.105	115	642	20	64	0.0646	840	80	1011	662	0.130	0.5148	5942
3/0	423	0.132	115	689	25	64	0.0808	887	80	1058	778	0.103	0.5006	5438
4/0	475	0.166	115	741	32	64	0.103	940	80	1110	930	0.0817	0.4864	4969
250	520	0.196	115	796	25	81	0.128	1027	80	1198	1096	0.0691	0.4739	4562
300	570	0.236	115	846	29	81	0.149	1077	80	1248	1245	0.0576	0.4627	4242
350	616	0.275	115	892	32	81	0.164	1123	80	1294	1372	0.0494	0.4533	3985

Notes:
1. DC resistance calculated based on a 10.371 ohm-cmil/ft resistivity for cooper and 16.946 ohm-cmil/ft for aluminum.
2. Inductive and capacitive reactance at 60 Hz and a 7.5 inches separation between phases in flat configuration.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

MV-90 15 kV Single Aluminum conductor, 90°C (International Unit System) 100% Insulation Level, 100% Concentric Neutral

Standards: UL 1072. Medium Voltage Power Cables MV90, ICEA S-94-649 Standard for Concentric Neutral Cables Rated 5-46 kV.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (mm²)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	CONCENTRIC NEUTRAL				JACKET THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)	DC RESISTANT AT 20°C[1] (ohm/km)	INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
					STRANDS No.	STRANDS DIAMETER (mm)	CROSS SECTION (mm²)	DIAMETER No.						
2	6.81	33.6	4.45	16.63	16	1.29	20.9	20.99	2.03	25.32	738	0.854	0.3487	16393
1	7.59	42.4	4.45	17.41	20	1.29	26.2	21.77	2.03	26.10	831	0.678	0.3372	15303
1/0	8.53	53.5	4.45	18.35	26	1.29	34.0	22.71	2.03	27.04	960	0.537	0.3284	14175
2/0	9.55	67.4	4.45	19.37	20	1.63	41.7	24.41	2.03	28.74	1103	0.426	0.3199	13131
3/0	10.74	85.0	4.45	20.56	25	1.63	52.1	25.60	2.03	29.93	1281	0.338	0.3111	12097
4/0	12.07	107.2	4.45	21.89	32	1.63	66.7	26.93	2.03	31.26	1514	0.268	0.3023	11123
250	13.21	126.7	4.45	23.27	25	2.05	82.7	29.15	2.03	33.49	1766	0.227	0.2945	10268
300	14.48	152.0	4.45	24.54	29	2.05	95.9	30.42	2.03	34.76	1994	0.189	0.2875	9592
350	15.65	177.3	4.45	25.71	32	2.05	105.8	32.17	2.03	36.51	2224	0.162	0.2817	9044

Notes:
1. DC resistance calculated based on a 17.241 ohm-mm2/km resistivity for cooper and 28.172 ohm-mm2/km for aluminum.
2. Inductive and capacitive reactance at 60 Hz and a 19.5 cm separation between phases in flat configuration.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

MV-90 15 kV Single Aluminum conductor, 90°C 100% Insulation Level, 100% Concentric Neutral

Standards: UL 1072. Medium Voltage Power Cables MV90, ICEA S-94-649 Standard for Concentric Neutral Cables Rated 5-46 kV.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (sq inches)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	CONCENTRIC NEUTRAL				JACKET THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)	DC RESISTANT AT 20°C[1] (ohm/km)	INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
					STRANDS No.	STRANDS DIAMETER (mm)	CROSS SECTION (sq inches)	DIAMETER No.						
2	268	0.0521	175	655	16	51	0.0325	826	80	997	496	0.260	0.5611	10186
1	299	0.0657	175	685	20	51	0.0406	857	80	1028	558	0.207	0.5427	9509
1/0	336	0.0829	175	722	26	51	0.0528	894	80	1065	645	0.164	0.5285	8808
2/0	376	0.105	175	763	20	64	0.0646	961	80	1131	742	0.130	0.5148	8160
3/0	423	0.132	175	809	25	64	0.0808	1008	80	1178	861	0.103	0.5006	7517
4/0	475	0.166	175	862	32	64	0.103	1060	80	1231	1017	0.0817	0.4864	6912
250	520	0.196	175	916	25	81	0.128	1148	80	1318	1187	0.0691	0.4739	6381
300	570	0.236	175	966	29	81	0.149	1198	80	1368	1340	0.0576	0.4627	5960
350	616	0.275	175	1012	32	81	0.164	1267	80	1437	1495	0.0494	0.4533	5620

Notes:
1. DC resistance calculated based on a 10.371 ohm-cmil/ft resistivity for cooper and 16.946 ohm-cmil/ft for aluminum.
2. Inductive and capacitive reactance at 60 Hz and a 7.5 inches separation between phases in flat configuration.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

MV-90 25 kV Single Aluminum conductor, 90°C (International Unit System) 100% Insulation Level, 100% Concentric Neutral

Standards: UL 1072. Medium Voltage Power Cables MV90, ICEA S-94-649
Standard for Concentric Neutral Cables Rated 5-46 kV.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (mm²)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	CONCENTRIC NEUTRAL				JACKET THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)	DC RESISTANT AT 20°C[1] (ohm/km)	INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
					STRANDS No.	STRANDS DIAMETER (mm)	CROSS SECTION (mm²)	DIAMETER No.						
1	7.59	42.4	6.60	21.67	20	1.29	26.2	26.03	2.03	30.36	1006	0.678	0.3372	19847
1/0	8.53	53.5	6.60	22.61	26	1.29	34.0	26.97	2.03	31.30	1141	0.537	0.3284	18509
2/0	9.55	67.4	6.60	23.63	20	1.63	41.7	28.67	2.03	33.00	1291	0.426	0.3199	17258
3/0	10.74	85.0	6.60	24.82	25	1.63	52.1	29.86	2.03	34.19	1476	0.338	0.3111	16006
4/0	12.07	107.2	6.60	26.15	32	1.63	66.7	31.77	2.03	36.10	1753	0.268	0.3023	14814
250	13.21	126.7	6.60	27.53	25	2.05	82.7	33.99	2.03	38.33	2015	0.227	0.2945	13758
300	14.48	152.0	6.60	28.80	29	2.05	95.9	35.26	2.03	39.60	2252	0.189	0.2875	12915
350	15.65	177.3	6.60	29.97	32	2.05	105.8	36.43	2.03	40.77	2455	0.162	0.2817	12227

Notes:
1. DC resistance calculated based on a 17.241 ohm-mm2/km resistivity for cooper and 28.172 ohm-mm2/km for aluminum.
2. Inductive and capacitive reactance at 60 Hz and a 19.5 cm separation between phases in flat configuration.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

MV-90 25 kV Single Aluminum conductor, 90°C 100% Insulation Level, 100% Concentric Neutral

Standards: UL 1072. Medium Voltage Power Cables MV90, ICEA S-94-649
Standard for Concentric Neutral Cables Rated 5-46 kV.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (sq inches)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	CONCENTRIC NEUTRAL				JACKET THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)	DC RESISTANT AT 20°C[1] (ohm/km)	INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
					STRANDS No.	STRANDS DIAMETER (mm)	CROSS SECTION (sq inches)	DIAMETER No.						
1	299	0.0657	260	853	20	51	0.0406	1025	80	1195	676	0.207	0.5427	12333
1/0	336	0.0829	260	890	26	51	0.0528	1062	80	1232	767	0.164	0.5285	11501
2/0	376	0.105	260	930	20	64	0.0646	1129	80	1299	868	0.130	0.5148	10724
3/0	423	0.132	260	977	25	64	0.0808	1176	80	1346	992	0.103	0.5006	9946
4/0	475	0.166	260	1030	32	64	0.103	1251	80	1421	1178	0.0817	0.4864	9205
250	520	0.196	260	1084	25	81	0.128	1338	80	1509	1354	0.0691	0.4739	8549
300	570	0.236	260	1134	29	81	0.149	1388	80	1559	1513	0.0576	0.4627	8025
350	616	0.275	260	1180	32	81	0.164	1434	80	1605	1650	0.0494	0.4533	7598

Notes:
1. DC resistance calculated based on a 10.371 ohm-cmil/ft resistivity for cooper and 16.946 ohm-cmil/ft for aluminum.
2. Inductive and capacitive reactance at 60 Hz and a 7.5 inches separation between phases in flat configuration.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

MV-90 35 kV Single Aluminum conductor, 90°C (International Unit System) 100% Insulation Level, 100% Concentric Neutral

Standards: UL 1072. Medium Voltage Power Cables MV90, ICEA S-94-649 Standard for Concentric Neutral Cables Rated 5-46 kV.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (mm^2)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	CONCENTRIC NEUTRAL				JACKET THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)	DC RESISTANT AT 20°C[1] (ohm/km)	INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
					STRANDS No.	STRANDS DIAMETER (mm)	CROSS SECTION (mm^2)	DIAMETER No.						
1/0	8.53	53.5	8.76	26.97	26	1.29	34.0	31.91	2.03	36.24	1390	0.537	0.3284	22170
2/0	9.55	67.4	8.76	27.99	20	1.63	41.7	33.61	2.03	37.94	1548	0.426	0.3199	20773
3/0	10.74	85.0	8.76	29.18	25	1.63	52.1	34.80	2.03	39.13	1742	0.338	0.3111	19366
4/0	12.07	107.2	8.76	30.51	32	1.63	66.7	36.13	2.03	40.46	1992	0.268	0.3023	18016
250	13.21	126.7	8.76	31.89	25	2.05	82.7	38.35	2.03	42.69	2263	0.227	0.2945	16810
300	14.48	152.0	8.76	33.16	29	2.05	95.9	39.62	2.03	43.96	2508	0.189	0.2875	15841
350	15.65	177.3	8.76	34.33	32	2.05	105.8	40.79	2.03	45.13	2719	0.162	0.2817	15047

Notes:
1. DC resistance calculated based on a 17.241 ohm-mm2/km resistivity for cooper and 28.172 ohm-mm2/km for aluminum.
2. Inductive and capacitive reactance at 60 Hz and a 19.5 cm separation between phases in flat configuration.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

MV-90 35 kV Single Aluminum conductor, 90°C 100% Insulation Level, 100% Concentric Neutral

Standards: UL 1072. Medium Voltage Power Cables MV90, ICEA S-94-649 Standard for Concentric Neutral Cables Rated 5-46 kV.

SIZE AWG / kcmil	CONDUCTOR DIAMETER (mm)	CROSS SECTION (sq inches)	INSULATION THICKNESS (mm)	INSULATION DIAMETER (mm)	CONCENTRIC NEUTRAL				JACKET THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)	DC RESISTANT AT 20°C[1] (ohm/km)	INDUCTIVE REACTANCE[2] (ohm/km)	CAPACITIVE REACTANCE[2] (ohm-km)
					STRANDS No.	STRANDS DIAMETER (mm)	CROSS SECTION (sq inches)	DIAMETER No.						
1/0	336	0.0829	345	1062	26	51	0.0528	1256	80	1427	934	0.164	0.5285	13776
2/0	376	0.105	345	1102	20	64	0.0646	1323	80	1494	1040	0.130	0.5148	12908
3/0	423	0.132	345	1149	25	64	0.0808	1370	80	1541	1170	0.103	0.5006	12034
4/0	475	0.166	345	1201	32	64	0.103	1422	80	1593	1339	0.0817	0.4864	11195
250	520	0.196	345	1256	25	81	0.128	1510	80	1681	1521	0.0691	0.4739	10446
300	570	0.236	345	1306	29	81	0.149	1560	80	1731	1686	0.0576	0.4627	9844
350	616	0.275	345	1352	32	81	0.164	1606	80	1777	1827	0.0494	0.4533	9350

Notes:
1. DC resistance calculated based on a 10.371 ohm-cmil/ft resistivity for cooper and 16.946 ohm-cmil/ft for aluminum.
2. Inductive and capacitive reactance at 60 Hz and a 7.5 inches separation between phases in flat configuration.
3. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

Covered Cable
for Treed Zones 5 - 46 kV

Description

ACSR thermo set covered.

Contruction

Conductor
ACSR cable, compressed.
Conductor Shield
Cross linked polyethylene semiconductor.
Blocking against moisture
Conductor filled with blocking compounds against moisture.
Conductor shield
Cross linked polyethylene semiconductor (for voltages greater than 5 kV).
Covering
Cross linked polyethylene XLPE tracking resistant.
One single layer for 5 kV Cables.
Two layers, inner layer natural XLPE, and external layer black XLPE.
Options
AAC or AAAC conductors.

Characteristics

Operating Temperature
Normal continuous operation 90°C for wet or dry locations.
Overload 130°C.
Short circuit 250°C.
Rated Voltage
5, 8, 15, 25 and 35 kV.

Applications

Distribution of electric energy in treed Areas or Industrial Zones.

This cable offers more reliability in operation because of outage reduction by accidental contacts between phases, phase and ground. Maintenance and cutting trees cost also are reduced. The external cover is sunlight resistant, corrosive and contaminants agent resistant and tracking resistant.

Standards

CENTELSA's 5-35 kV Covered conductors are manufactured in accordance with the following standards:
ASTM B232, NTC-ICONTEC 309. Aluminum Conductor Steel Reinforced.
ABNT EB-2173 Overhead cables XLPR covered for use in treed areas, 15 and 25 kV Voltages.
CENTELSA's specifications for covered cables from 5 to 46 kV.

Note: Configurations and sizes herein not specified are available upon request.

Covered Cable for treed zones 5 kV 90°C (International Unit System)

Standards: ABNT 2173 AND CENTELSA'S Specifications.

SIZE AWG / kcmil	ACSR CODE	STRANDS		CONDUCTOR DIAMETER (mm)	CROSS SECTION		COVERING THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)	DC RESISTANT AT 20°C[1] (ohm/km)
		ALUMINUM	STEEL		ALUMINUM (mm^2)	STEEL (mm^2)				
4	SWAN	6	1	6.16	21.2	3.5	2.16	10.60	151	1.32
2	SPARROW	6	1	7.78	33.6	5.6	2.16	12.22	218	0.829
1	ROBIN	6	1	8.73	42.4	7.1	2.16	13.17	264	0.658
1/0	RAVEN	6	1	9.81	53.5	8.9	2.16	14.25	321	0.521
2/0	QUAIL	6	1	11.01	67.5	11.2	2.16	15.45	392	0.414
3/0	PIGEON	6	1	12.36	85.0	14.2	2.16	16.80	480	0.328
4/0	PENGUIN	6	1	13.88	107.2	17.9	2.16	18.32	589	0.260
266.8	WAXWING	18	1	15.00	135.2	7.5	2.16	19.44	598	0.211
336.4	MERLIN	18	1	16.84	170.5	9.5	2.16	21.28	737	0.167

Notes: 1. DC resistance calculated based on a 28,1721 ohm-mm2/km resistivity for aluminum and 191,57 ohm-mm2/km for galvanized steel.
2. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

Covered Cable for treed zones 5 kV 90°C

Standards: ABNT 2173 AND CENTELSA'S Specifications.

SIZE AWG / kcmil	ACSR CODE	STRANDS		CONDUCTOR DIAMETER (mils)	CROSS SECTION		COVERING THICKNESS (mils)	OVERALL DIAMETER (mils)	APPROXIMATE TOTAL WEIGHT (lb/1000ft)	DC RESISTANT AT 20°C[1] (ohm/1000ft)
		ALUMINUM	STEEL		ALUMINUM (sq inches)	STEEL (sq inches)				
4	SWAN	6	1	243	0.0328	0.00547	85	417	102	0.402
2	SPARROW	6	1	306	0.0521	0.00870	85	481	147	0.253
1	ROBIN	6	1	344	0.0657	0.0110	85	519	178	0.201
1/0	RAVEN	6	1	386	0.0830	0.0138	85	561	216	0.159
2/0	QUAIL	6	1	433	0.105	0.0174	85	608	263	0.126
3/0	PIGEON	6	1	487	0.132	0.0220	85	661	322	0.100
4/0	PENGUIN	6	1	546	0.210	0.0116	85	721	396	0.079
266.8	WAXWING	18	1	591	0.264	0.0147	85	765	402	0.064
336.4	MERLIN	18	1	663	0.312	0.0173	85	838	495	0.051

Notes: 1. DC resistance calculated based on a 16.964 ohm-cmil/ft resistivity for aluminum and 115,23 ohm-cmil/ft for galvanized steel.
2. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

Covered Cable for treed zones 15 kV 90°C (International Unit System)

Standards: ABNT 2173 AND CENTELSA'S Specifications.

SIZE AWG / kcmil	ACSR CODE	STRANDS		CONDUCTOR DIAMETER (mm)	CROSS SECTION		CONDUCTOR SHIELD THICKNESS (mm)	1st LAYER COVERING THICKNESS (mm)	2nd LAYER COVERING THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)	DC RESISTANT AT 20°C[1] (ohm/km)
		ALUMINUM	STEEL		ALUMINUM (mm^2)	STEEL (mm^2)						
4	SWAN	6	1	6.16	21.2	3.5	0.34	1.91	1.91	16.06	243	1.32
2	SPARROW	6	1	7.78	33.6	5.6	0.34	1.91	1.91	17.68	318	0.829
1	ROBIN	6	1	8.73	42.4	7.1	0.34	1.91	1.91	18.63	369	0.658
1/0	RAVEN	6	1	9.81	53.5	8.9	0.34	1.91	1.91	19.71	431	0.521
2/0	QUAIL	6	1	11.01	67.5	11.2	0.34	1.91	1.91	20.91	506	0.414
3/0	PIGEON	6	1	12.36	85.0	14.2	0.34	1.91	1.91	22.26	600	0.328
4/0	PENGUIN	6	1	13.88	107.2	17.9	0.34	1.91	1.91	23.78	716	0.260
266.8	WAXWING	18	1	15.00	135.2	7.5	0.45	1.91	1.91	25.14	750	0.211
336.4	MERLIN	18	1	16.84	170.5	9.5	0.45	1.91	1.91	26.98	898	0.167
397.5	CHICADEE	18	1	18.31	201.5	11.2	0.45	1.91	1.91	27.25	965	0.141
477	PELICAN	18	1	20.05	241.7	13.4	0.45	1.91	1.91	28.99	1120	0.118
556.5	OSPREY	18	1	21.66	282.1	15.7	0.57	1.91	1.91	30.82	1286	0.101
636	KINGBIRD	18	1	23.16	322.3	17.9	0.57	1.91	1.91	32.32	1439	0.088

Notes: 1. DC resistance calculated based on a 28,1721 ohm-mm2/km resistivity for aluminum and 191,57 ohm-mm2/km for galvanized steel.
2. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

Covered Cable for treed zones 15 kV 90°C

Standards: ABNT 2173 AND CENTELSA'S Specifications.

SIZE AWG / kcmil	ACSR CODE	STRANDS		CONDUCTOR DIAMETER (mils)	CROSS SECTION		CONDUCTOR SHIELD THICKNESS (mils)	1st LAYER COVERING THICKNESS (mils)	2nd LAYER COVERING THICKNESS (mils)	OVERALL DIAMETER (mils)	APPROXIMATE TOTAL WEIGHT (lb/1000 ft)	DC RESISTANT AT 20°C[1] (ohm/1000 ft)
		ALUMINUM	STEEL		ALUMINUM (sq inches)	STEEL (sq inches)						
4	SWAN	6	1	243	0.0328	0.00547	13	75	75	632	164	0.402
2	SPARROW	6	1	306	0.0521	0.00870	13	75	75	696	214	0.253
1	ROBIN	6	1	344	0.0657	0.0110	13	75	75	733	248	0.201
1/0	RAVEN	6	1	386	0.0830	0.0138	13	75	75	776	290	0.159
2/0	QUAIL	6	1	433	0.105	0.0174	13	75	75	823	340	0.126
3/0	PIGEON	6	1	487	0.132	0.0220	13	75	75	876	403	0.100
4/0	PENGUIN	6	1	546	0.210	0.0116	13	75	75	936	481	0.079
266.8	WAXWING	18	1	591	0.264	0.0147	18	75	75	990	504	0.064
336.4	MERLIN	18	1	663	0.312	0.0173	18	75	75	1062	603	0.051
397.5	CHICADEE	18	1	721	0.375	0.0208	18	75	75	1073	648	0.043
477	PELICAN	18	1	790	0.437	0.0243	18	75	75	1142	753	0.036
556.5	OSPREY	18	1	853	0.166	0.0277	22	75	75	1214	864	0.031
636	KINGBIRD	18	1	912	0.500	0.0278	22	75	75	1272	967	0.027

Notes: 1. DC resistance calculated based on a 16.964 ohm-cmil/ft resistivity for aluminum and 115,23 ohm-cmil/ft for galvanized steel.
2. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

Covered Cable for treed zones 25 kV 90°C (International Unit System)

Standards: ABNT 2173 AND CENTELSA'S Specifications.

SIZE AWG / kcmil	ACSR CODE	STRANDS		CONDUCTOR DIAMETER (mm)	CROSS SECTION		CONDUCTOR SHIELD THICKNESS (mm)	1st LAYER COVERING THICKNESS (mm)	2nd LAYER COVERING THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)	DC RESISTANT AT 20°C[1] (ohm/km)
		ALUMINUM	STEEL		ALUMINUM (mm^2)	STEEL (mm^2)						
2	SPARROW	6	1	7.78	33.6	5.6	0.34	3.18	3.18	22.84	471	0.829
1	ROBIN	6	1	8.73	42.4	7.1	0.34	3.18	3.18	23.79	528	0.658
1/0	RAVEN	6	1	9.81	53.5	8.9	0.34	3.18	3.18	24.87	598	0.521
2/0	QUAIL	6	1	11.01	67.5	11.2	0.34	3.18	3.18	26.07	683	0.414
3/0	PIGEON	6	1	12.36	85.0	14.2	0.34	3.18	3.18	27.42	786	0.328
4/0	PENGUIN	6	1	13.88	107.2	17.9	0.34	3.18	3.18	28.94	914	0.260
266.8	WAXWING	18	1	15.00	135.2	7.5	0.45	3.18	3.18	30.30	958	0.211
336.4	MERLIN	18	1	16.84	170.5	9.5	0.45	3.18	3.18	32.14	1119	0.167
397.5	CHICADEE	18	1	18.31	201.5	11.2	0.45	3.18	3.18	32.41	1188	0.141
477	PELICAN	18	1	20.05	241.7	13.4	0.45	3.18	3.18	34.15	1357	0.118
556.5	OSPREY	18	1	21.66	282.1	15.7	0.57	3.18	3.18	35.98	1536	0.101
636	KINGBIRD	18	1	23.16	322.3	17.9	0.57	3.18	3.18	37.48	1700	0.088

Notes: 1. DC resistance calculated based on a 28,1721 ohm-mm2/km resistivity for aluminum and 191,57 ohm-mm2/km for galvanized steel.
2. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

Covered Cable for treed zones 25 kV 90°C

Standards: ABNT 2173 AND CENTELSA'S Specifications.

SIZE AWG / kcmil	ACSR CODE	STRANDS		CONDUCTOR DIAMETER (mils)	CROSS SECTION		CONDUCTOR SHIELD THICKNESS (mils)	1st LAYER COVERING THICKNESS (mils)	2nd LAYER COVERING THICKNESS (mils)	OVERALL DIAMETER (mils)	APPROXIMATE TOTAL WEIGHT (lb/1000 ft)	DC RESISTANT AT 20°C[1] (ohm/1000 ft)
		ALUMINUM	STEEL		ALUMINUM (sq inches)	STEEL (sq inches)						
2	SPARROW	6	1	306	0.0521	0.00870	13	125	125	899	316	0.253
1	ROBIN	6	1	344	0.0657	0.0110	13	125	125	937	355	0.201
1/0	RAVEN	6	1	386	0.0830	0.0138	13	125	125	979	402	0.159
2/0	QUAIL	6	1	433	0.105	0.0174	13	125	125	1026	459	0.126
3/0	PIGEON	6	1	487	0.132	0.0220	13	125	125	1079	528	0.100
4/0	PENGUIN	6	1	546	0.210	0.0116	13	125	125	1139	614	0.079
266.8	WAXWING	18	1	591	0.264	0.0147	18	125	125	1193	644	0.064
336.4	MERLIN	18	1	663	0.312	0.0173	18	125	125	1266	752	0.051
397.5	CHICADEE	18	1	721	0.375	0.0208	18	125	125	1276	799	0.043
477	PELICAN	18	1	790	0.437	0.0243	18	125	125	1345	912	0.036
556.5	OSPREY	18	1	853	0.166	0.0277	22	125	125	1417	1033	0.031
636	KINGBIRD	18	1	912	0.500	0.0278	22	125	125	1476	1143	0.027

Notes: 1. DC resistance calculated based on a 16.964 ohm-cmil/ft resistivity for aluminum and 115,23 ohm-cmil/ft for galvanized steel.
2. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

Covered Cable for treed zones 35 kV 90°C (International Unit System)

Standards: ABNT 2173 AND CENTELSA'S Specifications.

SIZE AWG / kcmil	ACSR CODE	STRANDS		CONDUCTOR DIAMETER (mm)	CROSS SECTION		CONDUCTOR SHIELD THICKNESS (mm)	1st LAYER COVERING THICKNESS (mm)	2nd LAYER COVERING THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)	DC RESISTANT AT 20°C[1] (ohm/km)
		ALUMINUM	STEEL		ALUMINUM (mm^2)	STEEL (mm^2)						
1/0	RAVEN	6	1	9.81	53.5	8.9	0.34	4.45	3.18	24.87	598	0.521
2/0	QUAIL	6	1	11.01	67.5	11.2	0.34	4.45	3.18	26.07	683	0.414
3/0	PIGEON	6	1	12.36	85.0	14.2	0.34	4.45	3.18	27.42	786	0.328
4/0	PENGUIN	6	1	13.88	107.2	17.9	0.34	4.45	3.18	28.94	914	0.260
266.8	WAXWING	18	1	15.00	135.2	7.5	0.45	4.45	3.18	30.30	958	0.211
336.4	MERLIN	18	1	16.84	170.5	9.5	0.45	4.45	3.18	32.14	1119	0.167
397.5	CHICADEE	18	1	18.31	201.5	11.2	0.45	4.45	3.18	32.41	1188	0.141
477	PELICAN	18	1	20.05	241.7	13.4	0.45	4.45	3.18	34.15	1357	0.118
556.5	OSPREY	18	1	21.66	282.1	15.7	0.57	4.45	3.18	35.98	1536	0.101
636	KINGBIRD	18	1	23.16	322.3	17.9	0.57	4.45	3.18	37.48	1700	0.088

Notes: 1. DC resistance calculated based on a 28,1721 ohm-mm2/km resistivity for aluminum and 191,57 ohm-mm2/km for galvanized steel.
2. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

Covered Cable for treed zones 35 kV 90°C

Standards: ABNT 2173 AND CENTELSA'S Specifications.

SIZE AWG / kcmil	ACSR CODE	STRANDS		CONDUCTOR DIAMETER (mils)	CROSS SECTION		CONDUCTOR SHIELD THICKNESS (mils)	1st LAYER COVERING THICKNESS (mils)	2nd LAYER COVERING THICKNESS (mils)	OVERALL DIAMETER (mils)	APPROXIMATE TOTAL WEIGHT (lb/1000 ft)	DC RESISTANT AT 20°C[1] (ohm/1000 ft)
		ALUMINUM	STEEL		ALUMINUM (sq inches)	STEEL (sq inches)						
1/0	RAVEN	6	1	386	0.0830	0.0138	13	175	125	979	402	0.159
2/0	QUAIL	6	1	433	0.105	0.0174	13	175	125	1026	459	0.126
3/0	PIGEON	6	1	487	0.132	0.0220	13	175	125	1079	528	0.100
4/0	PENGUIN	6	1	546	0.210	0.0116	13	175	125	1139	614	0.079
266.8	WAXWING	18	1	591	0.264	0.0147	18	175	125	1193	644	0.064
336.4	MERLIN	18	1	663	0.312	0.0173	18	175	125	1266	752	0.051
397.5	CHICADEE	18	1	721	0.375	0.0208	18	175	125	1276	799	0.043
477	PELICAN	18	1	790	0.437	0.0243	18	175	125	1345	912	0.036
556.5	OSPREY	18	1	853	0.166	0.0277	22	175	125	1417	1033	0.031
636	KINGBIRD	18	1	912	0.500	0.0278	22	175	125	1476	1143	0.027

Notes: 1. DC resistance calculated based on a 16.964 ohm-cmil/ft resistivity for aluminum and 115,23 ohm-cmil/ft for galvanized steel.
2. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

Covered Cable for treed zones 46 kV 90°C (International Unit System)

Standards: ABNT 2173 AND CENTELSA'S Specifications.

SIZE AWG / kcmil	ACSR CODE	STRANDS		CONDUCTOR DIAMETER (mm)	CROSS SECTION		CONDUCTOR SHIELD THICKNESS (mm)	1st LAYER COVERING THICKNESS (mm)	2nd LAYER COVERING THICKNESS (mm)	OVERALL DIAMETER (mm)	APPROXIMATE TOTAL WEIGHT (kg/km)	DC RESISTANT AT 20°C[1] (ohm/km)
		ALUMINUM	STEEL		ALUMINUM (mm^2)	STEEL (mm^2)						
1/0	RAVEN	6	1	9.81	53.5	8.9	0.34	5.72	4.45	29.91	799	0.521
2/0	QUAIL	6	1	11.01	67.5	11.2	0.34	5.72	4.45	31.11	892	0.414
3/0	PIGEON	6	1	12.36	85.0	14.2	0.34	5.72	4.45	32.46	1006	0.328
4/0	PENGUIN	6	1	13.88	107.2	17.9	0.34	5.72	4.45	33.98	1144	0.260
266.8	WAXWING	18	1	15.00	135.2	7.5	0.45	5.72	4.45	35.34	1198	0.211
336.4	MERLIN	18	1	16.84	170.5	9.5	0.45	5.72	4.45	37.18	1374	0.167
397.5	CHICADEE	18	1	18.31	201.5	11.2	0.45	5.72	4.45	37.45	1444	0.141
477	PELICAN	18	1	20.05	241.7	13.4	0.45	5.72	4.45	39.19	1626	0.118
556.5	OSPREY	18	1	21.66	282.1	15.7	0.57	5.72	4.45	41.02	1819	0.101
636	KINGBIRD	18	1	23.16	322.3	17.9	0.57	5.72	4.45	42.52	1994	0.088

Notes: 1. DC resistance calculated based on a 28,1721 ohm-mm2/km resistivity for aluminum and 191,57 ohm-mm2/km for galvanized steel.
2. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

Covered Cable for treed zones 46 kV 90°C

Standards: ABNT 2173 AND CENTELSA'S Specifications.

SIZE AWG / kcmil	ACSR CODE	STRANDS		CONDUCTOR DIAMETER (mils)	CROSS SECTION		CONDUCTOR SHIELD THICKNESS (mils)	1st LAYER COVERING THICKNESS (mils)	2nd LAYER COVERING THICKNESS (mils)	OVERALL DIAMETER (mils)	APPROXIMATE TOTAL WEIGHT (lb/1000 ft)	DC RESISTANT AT 20°C[1] (ohm/1000 ft)
		ALUMINUM	STEEL		ALUMINUM (sq inches)	STEEL (sq inches)						
1/0	RAVEN	6	1	386	0.0830	0.0138	13	225	175	1178	537	0.159
2/0	QUAIL	6	1	433	0.105	0.0174	13	225	175	1225	600	0.126
3/0	PIGEON	6	1	487	0.132	0.0220	13	225	175	1278	676	0.100
4/0	PENGUIN	6	1	546	0.210	0.0116	13	225	175	1338	769	0.079
266.8	WAXWING	18	1	591	0.264	0.0147	18	225	175	1391	805	0.064
336.4	MERLIN	18	1	663	0.312	0.0173	18	225	175	1464	923	0.051
397.5	CHICADEE	18	1	721	0.375	0.0208	18	225	175	1474	971	0.043
477	PELICAN	18	1	790	0.437	0.0243	18	225	175	1543	1093	0.036
556.5	OSPREY	18	1	853	0.166	0.0277	22	225	175	1615	1222	0.031
636	KINGBIRD	18	1	912	0.500	0.0278	22	225	175	1674	1340	0.027

Notes: 1. DC resistance calculated based on a 16.964 ohm-cmil/ft resistivity for aluminum and 115,23 ohm-cmil/ft for galvanized steel.
2. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

Medium Voltage Cables Ampacity

Ampacity (Amperes)
Triplexed conductors

Air Installation.
40°C Ambient Temperature.
90°C and 105°C Conductor Temperature.

SIZE AWG / kcmil	CROSS SECTION (mm²)	COPPER CONDUCTOR[1]				ALUMINUM CONDUCTOR[2]			
		2001 - 5000 Volts		5001 - 35000 Volts		2001 - 5000 Volts		5001 - 35000 Volts	
		90° C	105° C	90° C	105° C	90° C	105° C	90° C	105° C
8	8.36	65	74	-	-	50	57	-	-
6	13.3	90	99	100	110	70	77	75	84
4	21.1	120	130	130	140	90	100	100	110
2	33.6	160	175	170	195	125	135	130	150
1	42.2	185	205	195	225	145	160	150	175
1/0	53.5	215	240	225	255	170	185	175	200
2/0	67.4	250	275	260	295	195	215	200	230
3/0	85.0	290	320	300	340	225	250	230	265
4/0	107	335	375	345	390	265	290	270	305
250	127	375	415	380	430	295	325	300	335
350	177	465	515	470	525	365	405	370	415
500	253	580	645	580	650	460	510	460	515
750	380	750	835	730	820	600	665	590	660
1000	507	880	980	850	950	715	800	700	780

Notes: 1. NEC Table 310-67.
2. NEC Table 310-68.

Ampacity (Amperes)
Single conductors

Air Installation.
40°C Ambient Temperature.
90°C and 105°C Conductor Temperature.

SIZE AWG / kcmil	CROSS SECTION (mm²)	COPPER CONDUCTOR[1]						ALUMINUM CONDUCTOR[2]					
		2001 - 5000 Volts		5001 - 15000 Volts		15001 - 35000 Volts		2001 - 5000 Volts		5001 - 15000 Volts		15001 - 35000 Volts	
		90° C	105° C	90° C	105° C	90° C	105° C	90° C	105° C	90° C	105° C	90° C	105° C
8	8.36	83	93	-	-	-	-	64	71	-	-	-	-
6	13.3	110	120	110	125	-	-	85	95	87	97	-	-
4	21.1	145	160	150	165	-	-	115	125	115	130	-	-
2	33.6	190	215	195	215	-	-	150	165	150	170	-	-
1	42.2	225	250	225	250	225	250	175	195	175	195	175	195
1/0	53.5	260	290	260	290	260	290	200	225	200	225	200	225
2/0	67.4	300	330	300	335	300	330	230	260	235	260	230	260
3/0	85.0	345	385	345	385	345	380	270	300	270	300	270	300
4/0	107	400	445	400	445	395	445	310	350	310	350	310	345
250	127	445	495	445	495	440	490	345	385	345	385	345	380
350	177	550	615	550	610	545	605	430	480	430	480	430	475
500	253	695	775	685	765	680	755	545	605	535	600	530	590
750	380	900	1000	885	990	870	970	710	790	700	780	685	765
1000	507	1075	1200	1060	1185	1040	1160	855	950	840	940	825	920

Notes: 1. NEC Table 310-69.
2. NEC Table 310-70.

Ampacity (Amperes)
Three conductors cable

Air Installation.
40°C Ambient Temperature.
90°C and 105°C Conductor Temperature.

SIZE AWG / kcmil	CROSS SECTION (mm²)	COPPER CONDUCTOR[1]				ALUMINUM CONDUCTOR[2]			
		2001 - 5000 Volts		5001 - 35000 Volts		2001 - 5000 Volts		5001 - 35000 Volts	
		90° C	105° C	90° C	105° C	90° C	105° C	90° C	105° C
8	8.36	59	66	-	-	46	51	-	-
6	13.3	79	88	93	105	61	68	72	80
4	21.1	105	115	120	135	81	90	95	105
2	33.6	140	154	165	185	110	120	125	145
1	42.2	160	180	185	210	125	140	145	165
1/0	53.5	185	205	215	240	145	160	170	185
2/0	67.4	215	240	245	275	170	185	190	215
3/0	85.0	250	280	285	315	195	215	220	245
4/0	107	285	320	325	360	225	250	255	285
250	127	320	355	360	400	250	280	280	315
350	177	395	440	435	490	310	345	345	385
500	253	485	545	535	600	385	430	425	475
750	380	615	685	670	745	495	550	540	600
1000	507	705	790	770	860	585	650	635	705

Notes: 1. NEC Table 310-71.
2. NEC Table 310-72.

Ampacity (Amperes)
Triplexed or three conductors cable

Installation in insulated duct at air.
40°C Ambient Temperature.
90°C and 105°C Conductor Temperature.

SIZE AWG / kcmil	CROSS SECTION (mm²)	COPPER CONDUCTOR[1]				ALUMINUM CONDUCTOR[2]			
		2001 - 5000 Volts		5001 - 35000 Volts		2001 - 5000 Volts		5001 - 35000 Volts	
		90° C	105° C	90° C	105° C	90° C	105° C	90° C	105° C
8	8.36	55	61	-	-	43	48	-	-
6	13.3	75	84	83	93	58	65	65	72
4	21.1	97	110	110	120	76	85	84	94
2	33.6	130	145	150	165	100	115	115	130
1	42.2	155	175	170	190	120	135	130	150
1/0	53.5	180	200	195	215	140	155	150	170
2/0	67.4	205	225	225	255	160	175	175	200
3/0	85.0	240	270	260	290	190	210	200	225
4/0	107	280	305	295	330	215	240	230	260
250	127	315	355	330	365	250	280	255	290
350	177	385	430	395	440	305	340	310	350
500	253	475	530	480	535	380	425	385	430
750	380	600	665	585	655	490	545	485	540
1000	507	690	770	675	755	580	645	565	640

Notes: 1. NEC Table 310-73
2. NEC Table 310-74

Ampacity (Amperes)
Three conductors cable

Installation in insulated duct at air.
40°C Ambient Temperature.
90°C and 105°C Conductor Temperature.

SIZE AWG / kcmil	CROSS SECTION (mm²)	COPPER CONDUCTOR[1]				ALUMINUM CONDUCTOR[2]			
		2001 - 5000 Volts		5001 - 35000 Volts		2001 - 5000 Volts		5001 - 35000 Volts	
		90° C	105° C	90° C	105° C	90° C	105° C	90° C	105° C
8	8.36	52	58	-	-	41	46	-	-
6	13.3	69	77	83	92	53	59	64	71
4	21.1	91	100	105	120	71	79	84	94
2	33.6	125	135	145	165	96	105	115	125
1	42.2	140	155	165	185	110	125	130	145
1/0	53.5	165	185	195	215	130	145	150	170
2/0	67.4	190	210	220	245	150	165	170	190
3/0	85.0	220	245	250	280	170	190	195	220
4/0	107	255	285	290	320	200	225	225	255
250	127	280	315	315	350	220	245	250	280
350	177	350	390	385	430	275	305	305	340
500	253	425	475	470	525	340	380	380	425
750	380	525	585	570	635	430	480	470	520
1000	507	590	660	650	725	505	560	550	615

Notes: 1. NEC Table 310-75.
2. NEC Table 310-76.

Ampacity (Amperes)
Three single conductors

IInstallation in underground electrical ducts (Three conductors by each electrical duct).
20°C Ambient Temperature (Earth).
100% Load Factor.
RHO 90.
90°C and 105°C Conductor Temperature.

SIZE AWG / kcmil	CROSS SECTION (mm²)	COPPER CONDUCTOR [1]											
		ONE CIRCUIT - FIGURE 1				THREE CIRCUITS - FIGURE 2				SIX CIRCUITS - FIGURE 3			
		2001 - 5000 Volts		5001 - 35000 Volts		2001 - 5000 Volts		5001 - 35000 Volts		2001 - 5000 Volts		5001 - 35000 Volts	
		90°C	105°C	90°C	105°C	90°C	105°C	90°C	105°C	90°C	105°C	90°C	105°C
8	8.36	64	69	-	-	56	60	-	-	48	52	-	-
6	13.3	85	92	90	97	73	79	77	83	62	67	64	68
4	21.1	110	120	115	125	95	100	99	105	80	86	82	88
2	33.6	145	155	155	165	125	130	130	135	105	110	105	115
1	42.2	170	180	175	185	140	150	145	155	115	125	120	125
1/0	53.5	195	210	200	215	160	175	165	175	135	145	135	145
2/0	67.4	220	235	230	245	185	195	185	200	150	160	150	165
3/0	85.0	250	270	260	275	210	225	210	225	170	185	170	185
4/0	107	290	310	295	315	235	255	240	255	195	210	190	205
250	127	320	345	325	345	260	280	260	280	210	225	210	225
350	177	385	415	390	415	315	335	310	330	250	270	245	265
500	253	470	505	465	500	375	405	370	395	300	325	290	310
750	380	585	630	565	610	460	495	440	475	365	395	350	375
1000	507	670	720	640	690	525	565	495	535	410	445	390	415

SIZE AWG / kcmil	CROSS SECTION (mm²)	ALUMINUM CONDUCTOR [2]											
		ONE CIRCUIT - FIGURE 1				THREE CIRCUITS - FIGURE 2				SIX CIRCUITS - FIGURE 3			
		2001 - 5000 Volts		5001 - 35000 Volts		2001 - 5000 Volts		5001 - 35000 Volts		2001 - 5000 Volts		5001 - 35000 Volts	
		90°C	105°C	90°C	105°C	90°C	105°C	90°C	105°C	90°C	105°C	90°C	105°C
8	8.36	50	54	-	-	44	47	-	-	38	41	-	-
6	13.3	66	71	70	75	57	61	60	65	48	52	50	54
4	21.1	86	93	91	98	74	80	77	83	62	67	64	69
2	33.6	115	125	120	130	96	105	100	105	80	86	80	88
1	42.2	130	140	135	145	110	120	110	120	91	98	90	99
1/0	53.5	150	160	155	165	125	135	125	140	105	110	105	110
2/0	67.4	170	185	175	190	145	155	145	155	115	125	115	125
3/0	85.0	195	210	200	215	160	175	165	175	135	145	130	145
4/0	107	225	245	230	245	185	200	185	200	150	165	150	160
250	127	250	270	250	270	205	220	200	220	165	180	165	175
350	177	305	325	305	330	245	265	245	260	195	210	195	210
500	253	370	400	370	400	295	320	290	315	240	255	230	250
750	380	470	505	455	490	370	395	355	385	290	315	280	305
1000	507	545	590	525	565	425	460	405	440	335	360	320	345

Notes: 1. NEC Table 310-77.
2. NEC Table 310-78.

Ampacity (Amperes)
Three conductors cable

Installation in underground electrical ducts (One conductor by each electrical duct).
20°C Ambient Temperature (Earth).
100% Load Factor.
RHO 90.
90°C and 105°C Conductor Temperature.

SIZE AWG / kcmil	CROSS SECTION (mm²)	COPPER CONDUCTOR [1]											
		ONE CIRCUIT - FIGURE 1				THREE CIRCUITS - FIGURE 2				SIX CIRCUITS - FIGURE 3			
		2001 - 5000 Volts		5001 - 35000 Volts		2001 - 5000 Volts		5001 - 35000 Volts		2001 - 5000 Volts		5001 - 35000 Volts	
		90°C	105°C	90°C	105°C	90°C	105°C	90°C	105°C	90°C	105°C	90°C	105°C
8	8.36	59	64	-	-	53	57	-	-	46	50	-	-
6	13.3	78	84	88	95	69	74	75	81	60	65	63	68
4	21.1	100	110	115	125	89	96	97	105	77	83	81	87
2	33.6	135	145	150	160	115	125	125	135	98	105	105	110
1	42.2	155	165	170	185	135	145	140	155	110	120	115	125
1/0	53.5	175	190	195	210	150	165	160	175	125	135	130	145
2/0	67.4	200	220	220	235	170	185	185	195	145	155	150	160
3/0	85.0	230	250	250	270	195	210	205	220	165	175	170	180
4/0	107	265	285	285	305	225	240	230	250	185	200	190	200
250	127	290	315	310	335	245	265	255	270	200	220	205	220
350	177	355	380	375	400	295	315	305	325	240	270	245	275
500	253	430	460	450	485	355	380	360	385	290	310	290	305
750	380	530	570	545	585	430	465	430	465	350	375	340	365
1000	507	600	645	615	660	485	520	485	515	390	420	380	405

SIZE AWG / kcmil	CROSS SECTION (mm²)	ALUMINUM CONDUCTOR [2]											
		ONE CIRCUIT - FIGURE 1				THREE CIRCUITS - FIGURE 2				SIX CIRCUITS - FIGURE 3			
		2001 - 5000 Volts		5001 - 35000 Volts		2001 - 5000 Volts		5001 - 35000 Volts		2001 - 5000 Volts		5001 - 35000 Volts	
		90°C	105°C	90°C	105°C	90°C	105°C	90°C	105°C	90°C	105°C	90°C	105°C
8	8.36	46	50	-	-	41	44	-	-	36	39	-	-
6	13.3	61	66	69	74	54	58	59	64	46	50	49	53
4	21.1	80	86	89	96	70	75	75	81	60	65	63	68
2	33.6	105	110	115	125	90	97	100	105	77	83	80	86
1	42.2	120	130	135	145	105	110	110	120	87	94	90	98
1/0	53.5	140	150	150	165	120	125	125	135	99	105	105	110
2/0	67.4	160	170	170	185	135	145	140	155	110	120	115	125
3/0	85.0	180	195	195	210	155	165	160	175	130	140	130	140
4/0	107	205	220	220	240	175	185	180	195	145	155	150	160
250	127	230	245	245	265	190	205	200	215	160	170	160	170
350	177	280	310	295	315	230	250	240	255	190	205	190	205
500	253	340	365	355	385	280	300	285	305	230	245	230	245
750	380	425	460	440	475	345	375	350	375	280	305	275	295
1000	507	495	535	510	545	400	430	400	430	320	345	315	335

Notes: 1. NEC Table 310-79.
2. NEC Table 310-80.

Ampacity (Amperes)
Single conductor

Installation in direct buried.
20°C Ambient Temperature (Earth).
100% Load Factor.
RHO 90.
90°C and 105°C Conductor Temperature.

SIZE AWG / kcmil	CROSS SECTION (mm^2)	COPPER CONDUCTOR [1]							
		ONE CIRCUIT, THREE CONDUCTORS - FIGURE 4				TWO CIRCUITS, SIX CONDUCTORS - FIGURE 5			
		2001 - 5000 Volts		5001 - 35000 Volts		2001 - 5000 Volts		5001 - 35000 Volts	
		90°C	105°C	90°C	105°C	90°C	105°C	90°C	105°C
8	8.36	110	115	-	-	100	110	-	-
6	13.3	140	150	130	140	130	140	120	130
4	21.1	180	195	170	180	165	180	160	170
2	33.6	230	250	210	225	215	230	195	210
1	42.2	260	280	240	260	240	260	225	240
1/0	53.5	295	320	275	295	275	295	255	275
2/0	67.4	335	365	310	335	310	335	290	315
3/0	85.0	385	415	355	380	355	380	330	355
4/0	107	435	465	405	435	400	430	375	405
250	127	470	510	440	475	435	470	410	440
350	177	570	615	535	575	520	560	495	530
500	253	690	745	650	700	630	680	600	645
750	380	845	910	805	865	775	835	740	795
1000	507	980	1055	930	1005	890	960	855	920

SIZE AWG / kcmil	CROSS SECTION (mm^2)	ALUMINUM CONDUCTOR [2]							
		ONE CIRCUIT, THREE CONDUCTORS - FIGURE 4				TWO CIRCUITS, SIX CONDUCTORS - FIGURE 5			
		2001 - 5000 Volts		5001 - 35000 Volts		2001 - 5000 Volts		5001 - 35000 Volts	
		90°C	105°C	90°C	105°C	90°C	105°C	90°C	105°C
8	8.36	85	90	-	-	80	85	-	-
6	13.3	110	115	100	110	100	110	95	100
4	21.1	140	150	130	140	130	140	125	130
2	33.6	180	195	165	175	165	180	155	165
1	42.2	205	220	185	200	190	200	175	190
1/0	53.5	230	250	215	230	215	230	200	215
2/0	67.4	265	285	245	260	245	260	225	245
3/0	85.0	300	320	275	295	275	295	255	275
4/0	107	340	365	315	340	310	335	290	315
250	127	370	395	345	370	340	365	320	345
350	177	445	480	415	450	410	440	385	415
500	253	540	580	510	545	495	530	470	505
750	380	665	720	635	680	610	655	580	625
1000	507	780	840	740	795	710	765	680	730

Notes: 1. NEC Table 310-81.
2. NEC Table 310-82.

Ampacity (Amperes)
Three conductor cable

Installation in direct buried.
20°C Ambient Temperature (Earth).
100% Load Factor.
RHO 90.
90°C and 105°C Conductor Temperature.

SIZE AWG / kcmil	CROSS SECTION (mm^2)	COPPER CONDUCTOR [1]							
		ONE CIRCUIT - FIGURE 6				TWO CIRCUITS - FIGURE 7			
		2001 - 5000 Volts		5001 - 35000 Volts		2001 - 5000 Volts		5001 - 35000 Volts	
		90°C	105°C	90°C	105°C	90°C	105°C	90°C	105°C
8	8.36	85	89	-	-	80	84	-	-
6	13.3	105	115	115	120	100	105	105	115
4	21.1	135	150	145	155	130	140	135	145
2	33.6	180	190	185	200	165	180	170	185
1	42.2	200	215	210	225	185	200	195	210
1/0	53.5	230	245	240	255	215	230	220	235
2/0	67.4	260	280	270	290	240	260	250	270
3/0	85.0	295	320	305	330	275	295	280	305
4/0	107	335	360	350	375	310	335	320	345
250	127	365	395	380	410	340	365	350	375
350	177	440	475	460	495	410	440	420	450
500	253	530	570	550	590	490	525	500	535
750	380	650	700	665	720	595	640	605	650
1000	507	730	785	750	810	665	715	675	730

SIZE AWG / kcmil	CROSS SECTION (mm^2)	ALUMINUM CONDUCTOR [2]							
		ONE CIRCUIT - FIGURE 6				TWO CIRCUITS - FIGURE 7			
		2001 - 5000 Volts		5001 - 35000 Volts		2001 - 5000 Volts		5001 - 35000 Volts	
		90°C	105°C	90°C	105°C	90°C	105°C	90°C	105°C
8	8.36	65	70	-	-	60	66	-	-
6	13.3	80	88	90	95	75	83	80	95
4	21.1	105	115	115	125	100	110	105	115
2	33.6	140	150	145	155	130	140	135	145
1	42.2	155	170	165	175	145	155	150	165
1/0	53.5	180	190	185	200	165	180	170	185
2/0	67.4	205	220	210	225	190	205	195	210
3/0	85.0	230	250	240	260	215	230	220	240
4/0	107	260	280	270	295	245	260	250	270
250	127	285	310	300	320	265	285	275	295
350	177	345	375	360	390	320	345	330	355
500	253	420	450	435	470	385	415	395	425
750	380	520	560	540	580	480	515	485	525
1000	507	600	650	620	665	550	590	560	600

Notes: 1. NEC Table 310-83.
2. NEC Table 310-84.

Ampacity (Amperes)
Triplexed conductors

Installation in direct buried.
20°C Ambient Temperature (Earth).
100% Load Factor.
RHO 90.
90°C and 105°C Conductor Temperature.

SIZE AWG / kcmil	CROSS SECTION (mm^2)	COPPER CONDUCTOR [1]							
		ONE CIRCUIT, THREE CONDUCTORS - FIGURE 8				TWO CIRCUITS , SIX CONDUCTORS- FIGURE 9			
		2001 - 5000 Volts		5001 - 35000 Volts		2001 - 5000 Volts		5001 - 35000 Volts	
		90°C	105°C	90°C	105°C	90°C	105°C	90°C	105°C
8	8.36	90	95	-	-	85	90	-	-
6	13.3	120	130	115	120	110	115	105	115
4	21.1	150	165	150	160	140	150	140	150
2	33.6	195	205	190	205	180	195	175	190
1	42.2	225	240	215	230	205	220	200	215
1/0	53.5	255	270	245	260	235	250	225	240
2/0	67.4	290	310	275	295	265	285	255	275
3/0	85.0	330	360	315	340	300	320	290	315
4/0	107	375	405	360	385	340	365	325	350
250	127	410	445	390	410	370	395	355	380
350	177	490	580	470	505	445	480	425	455
500	253	590	635	565	605	535	575	510	545
750	380	725	780	685	740	650	700	615	660
1000	507	825	885	770	830	740	795	690	745

SIZE AWG / kcmil	CROSS SECTION (mm^2)	ALUMINUM CONDUCTOR [2]							
		ONE CIRCUIT, THREE CONDUCTORS - FIGURE 8				TWO CIRCUITS , SIX CONDUCTORS- FIGURE 9			
		2001 - 5000 Volts		5001 - 35000 Volts		2001 - 5000 Volts		5001 - 35000 Volts	
		90°C	105°C	90°C	105°C	90°C	105°C	90°C	105°C
8	8.36	70	75	-	-	65	70	-	-
6	13.3	90	100	90	95	85	95	85	90
4	21.1	120	130	115	125	110	120	105	115
2	33.6	155	165	145	155	140	150	135	145
1	42.2	175	190	165	175	160	170	155	170
1/0	53.5	200	210	190	205	180	195	175	190
2/0	67.4	225	240	215	230	205	220	200	215
3/0	85.0	255	275	245	265	235	250	225	245
4/0	107	290	310	280	305	265	285	255	275
250	127	320	350	305	325	290	310	280	300
350	177	385	420	370	400	350	375	335	360
500	253	465	500	445	480	420	455	405	435
750	380	580	625	550	590	520	560	485	525
1000	507	670	725	635	680	600	645	565	605

Notes: 1. NEC Table 310-85.
2. NEC Table 310-86.

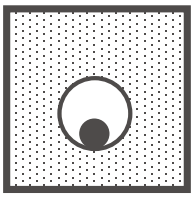
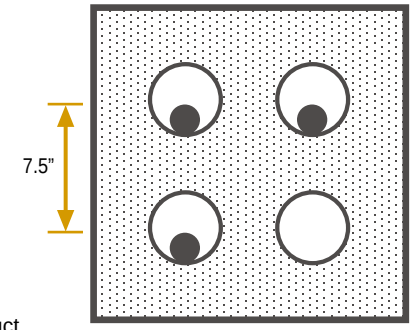
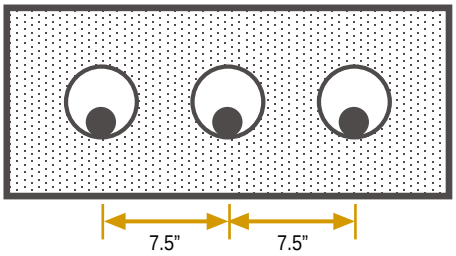


FIGURE 1
Electrical duck bank, one electrical duct

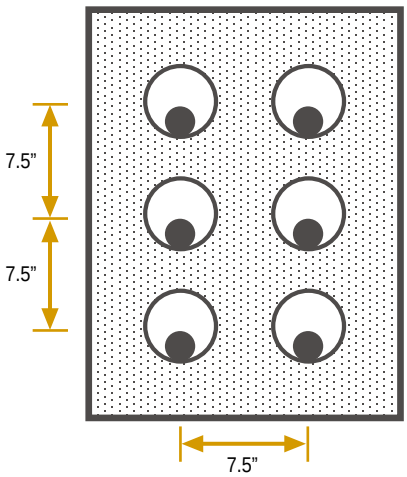


Electrical duck bank (27”x27”),
three electrical ducts

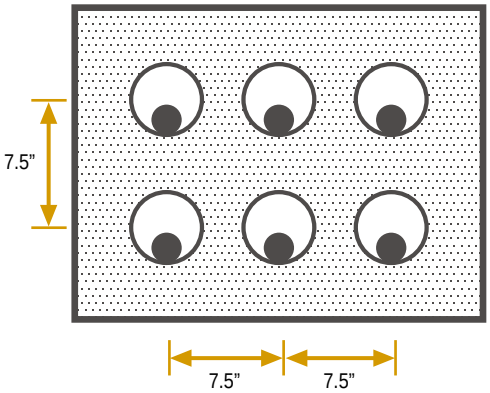


Electrical duck bank (27”x11.5”),
three electrical ducts

FIGURE 2



Electrical duck bank (19”x27”),
three electrical ducts



Electrical duck bank (27”x19”),
three electrical ducts

FIGURE 3

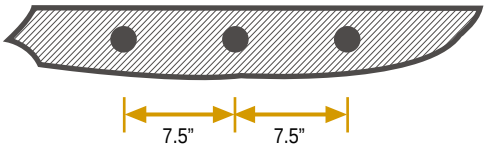


FIGURE 4
Buried single-conductor cables, one circuit

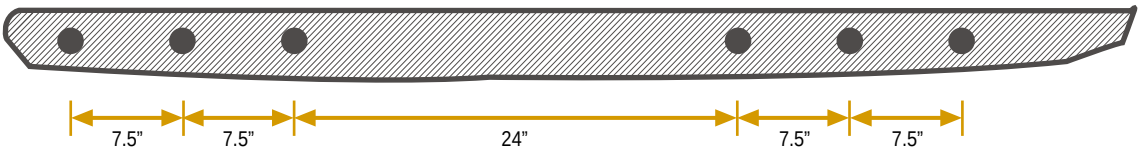


FIGURE 5
Buried single-conductor cables, two circuits

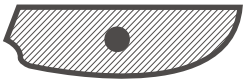


FIGURE 6
Buried Three-conductor cable

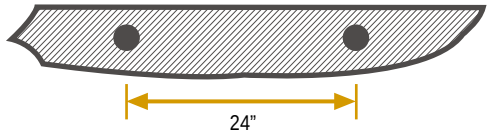


FIGURE 7
Buried Three-conductor cables

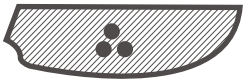


FIGURE 8
Buried Triplexed cables, one circuit

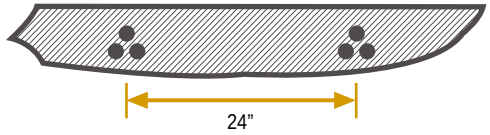
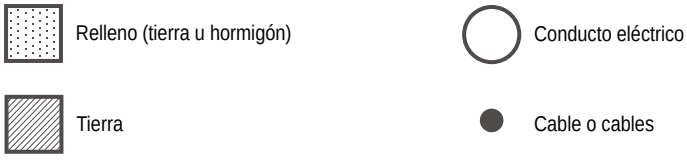


FIGURE 9
Buried Triplexed cables, two circuits



Ampacities at Ambient temperature different from the tables

Ampacities at Ambient temperature different from the Tables can be calculated by:

$$I_2 = I_1 \sqrt{\frac{TC - TA_2 - \bullet TD}{TC - TA_1 - \bullet TD}}$$

Where:

I_1 = Ampacity at Temperature Ambient TA_1 (From Tables).

I_2 = Ampacity at Temperature Ambient TA_2 (To be calculated).

TC = Conductor temperature (°C).

TA_1 = Temperature Ambient from Tables.

TA_2 = Different Temperature Ambient.

•TD = Dielectric loss temperature rise.

Short Circuit Currents for MV Cables

Maximum acceptable short circuit current for MV Cables can be calculated by:

$$I = A\,k\sqrt{\frac{\log\left(\frac{T_2+\lambda}{T_1+\lambda}\right)}{t}}$$

Where:

I = Ampacity at Temperature Ambient TA_1 (From Tables).

A = Conductor Section in mm².

K = 341 for copper, 224 for aluminum.

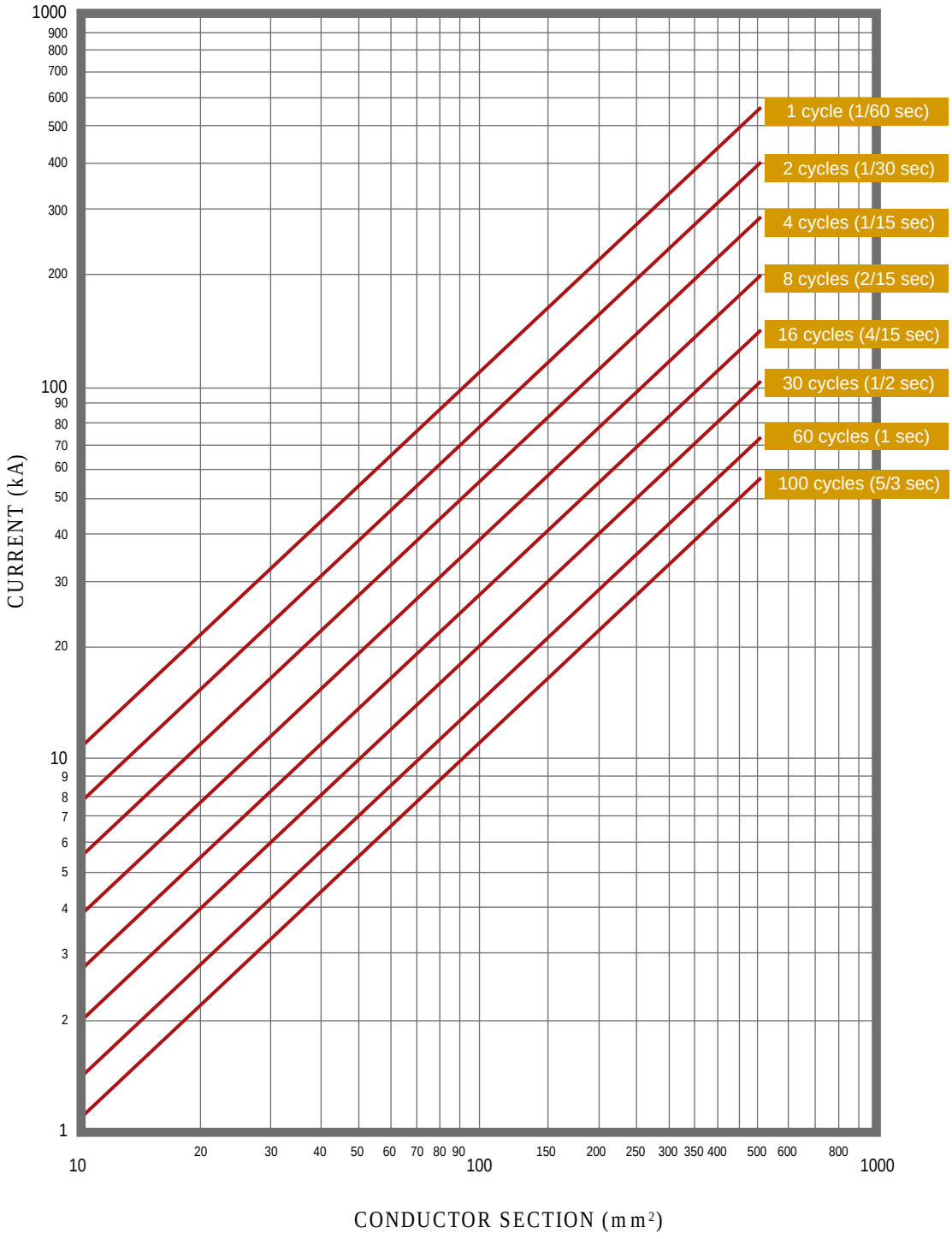
T_1 = Maximum Operation Temperature (90°C for conductor and 85°C for jacket).

T_2 = Maximum Acceptable Short Circuit Temperature (250°C for conductor and 200°C for shield).

• = 234 for copper, 228 for aluminum.

t = Short circuit duration in seconds.

Short Circuit Currents for Copper Conductor



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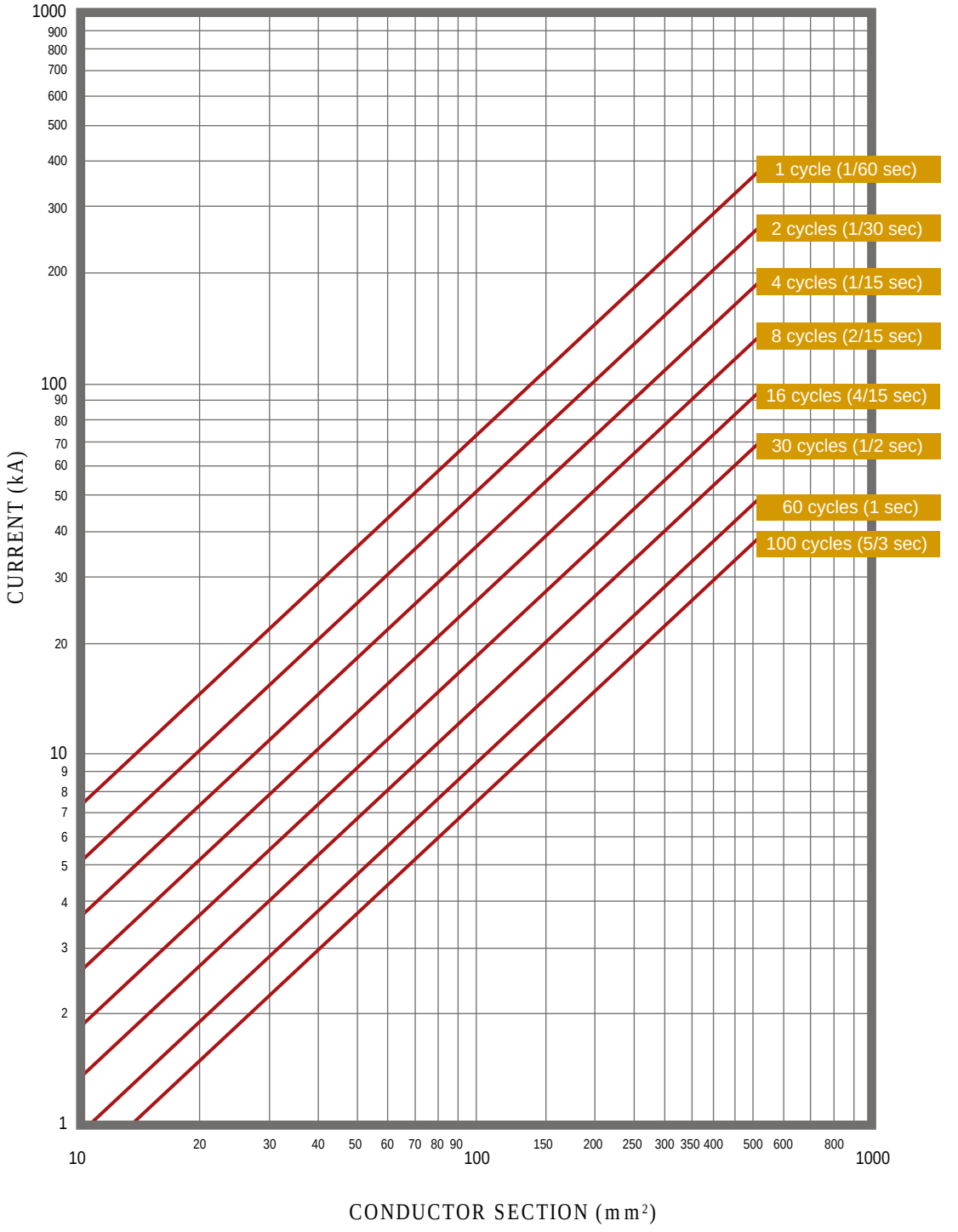
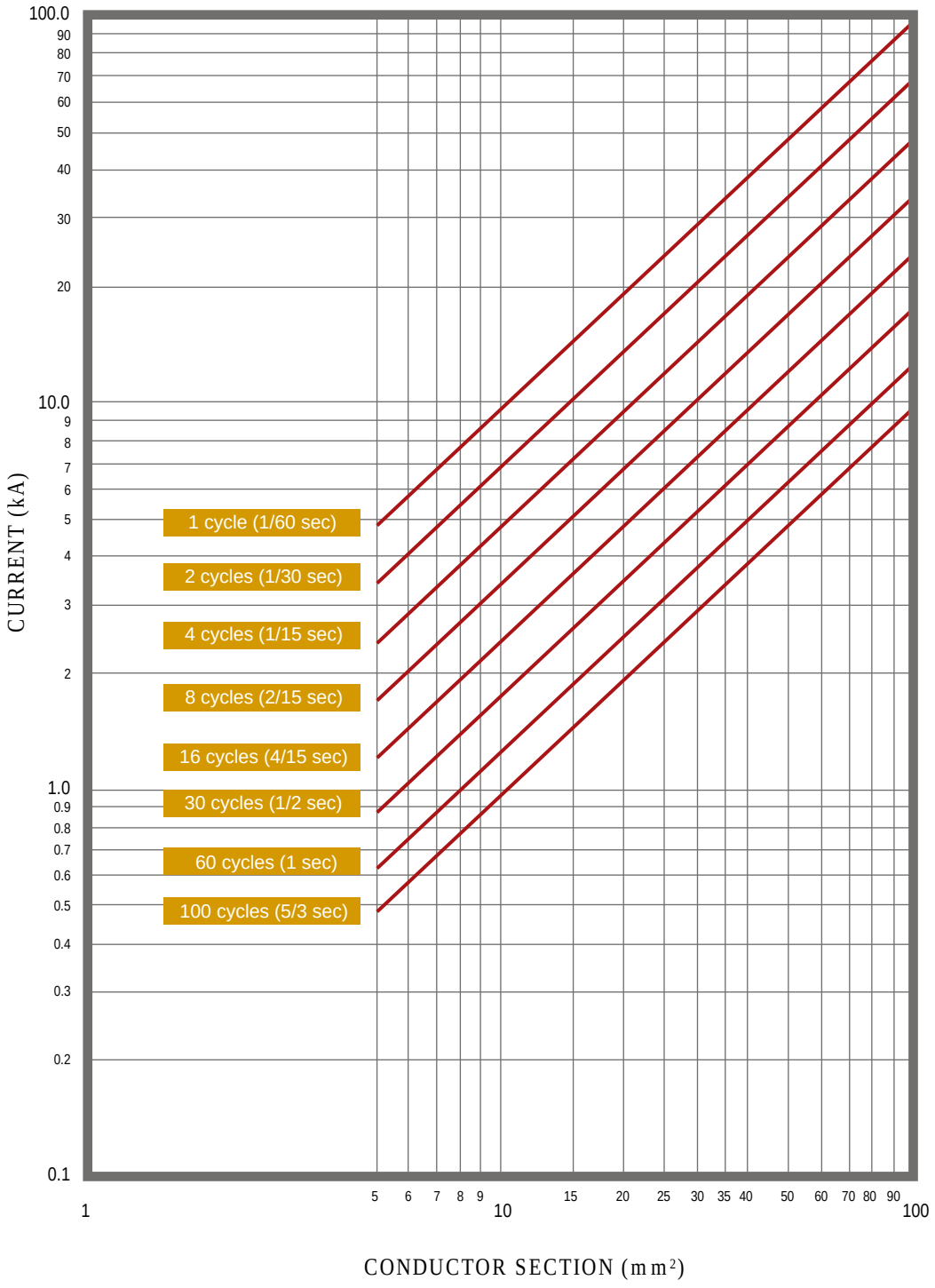
Short Circuit Currents for Aluminum Conductor

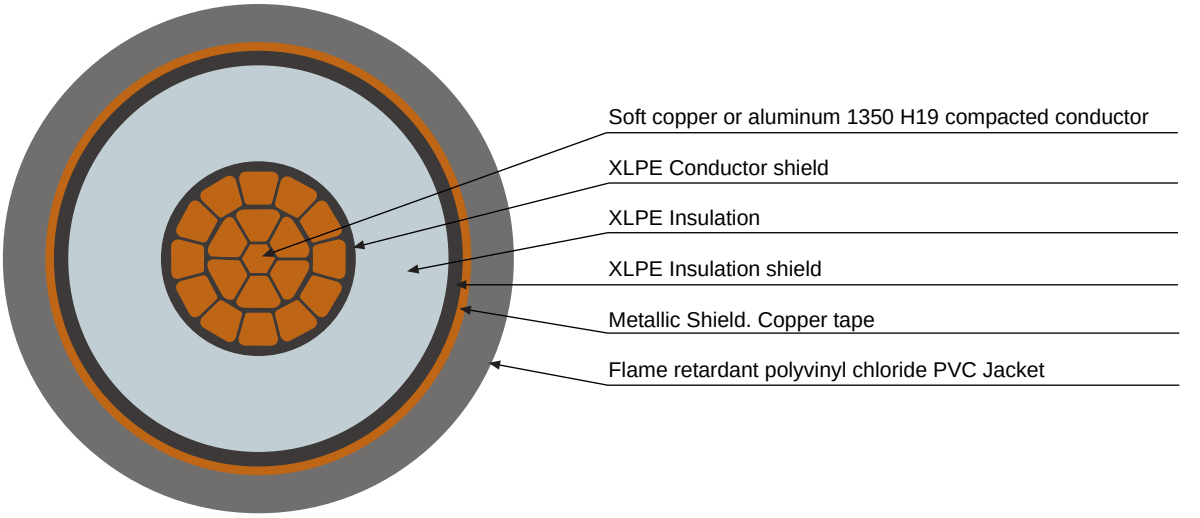


Short Circuit Currents for Copper Shields

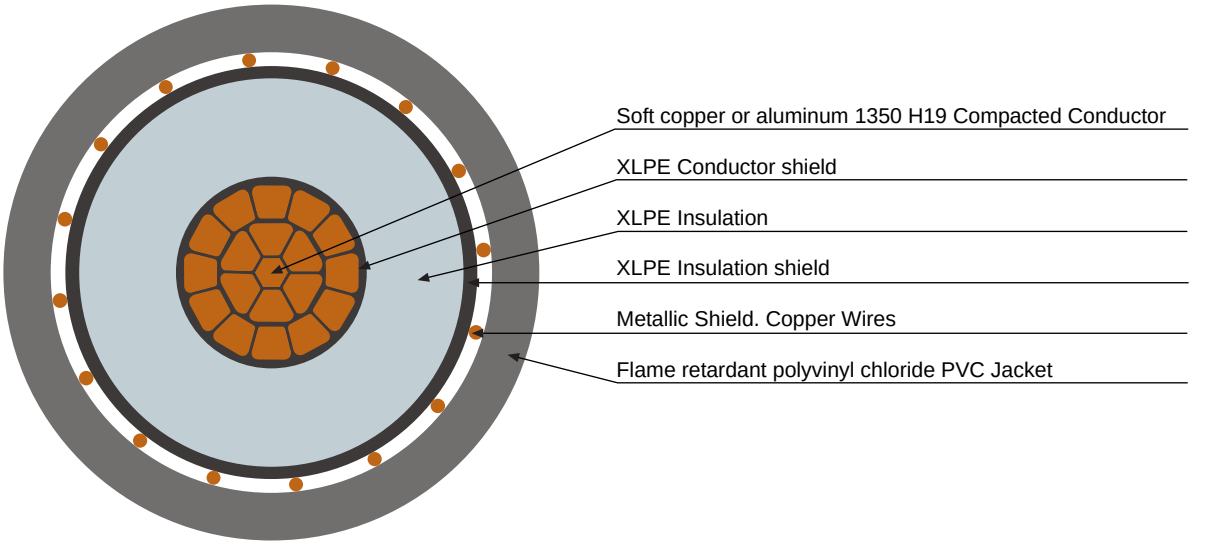


Medium Voltage Cables Designs

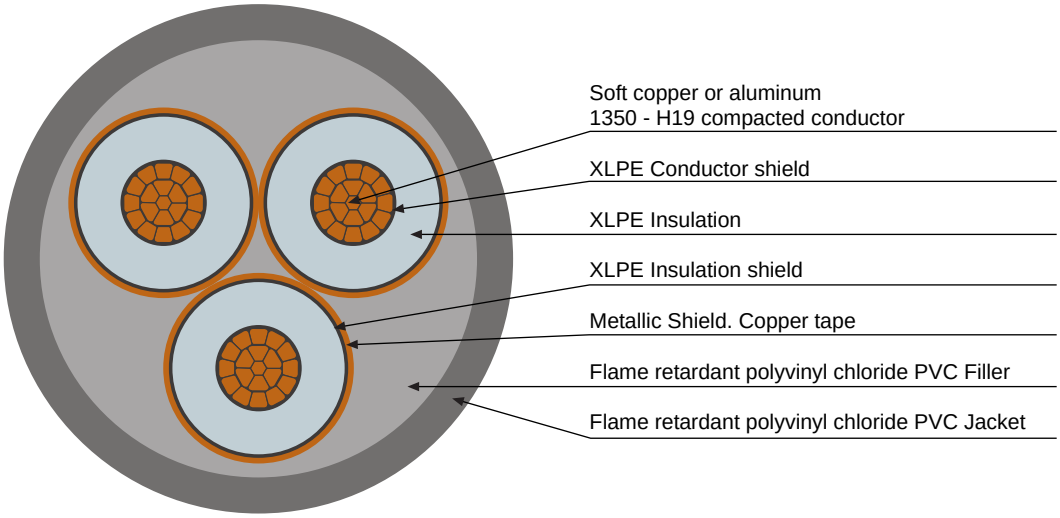
Single Conductors, Copper Tape Shield.



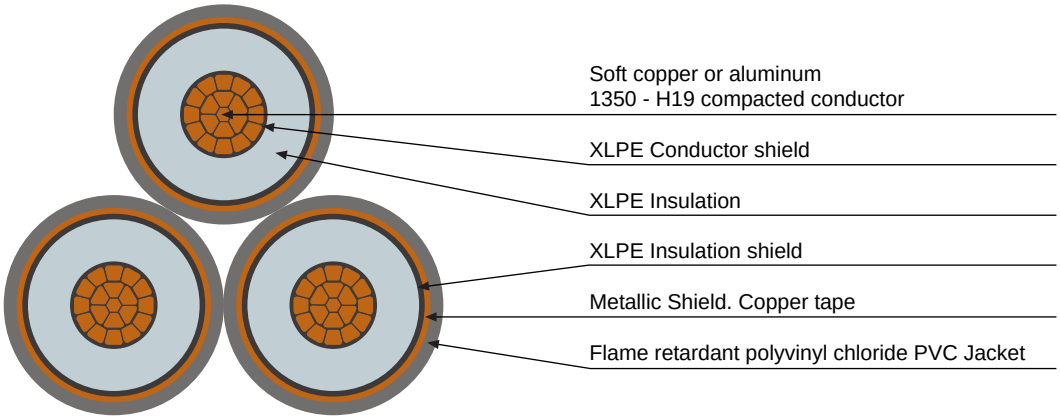
Single Conductors, Copper Wires Shield.



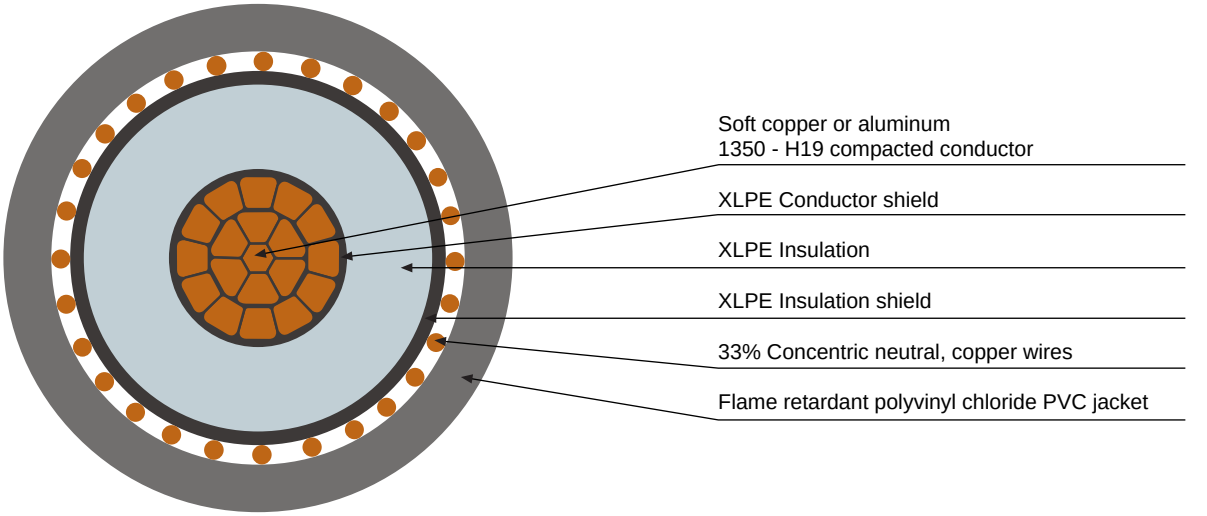
Three Conductors, Copper Tape Shield.



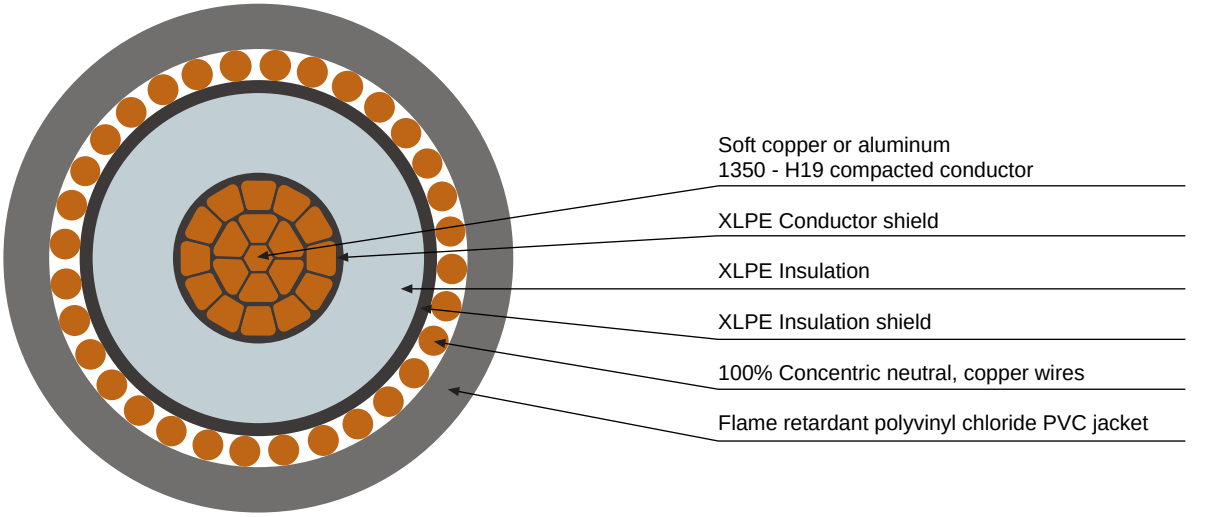
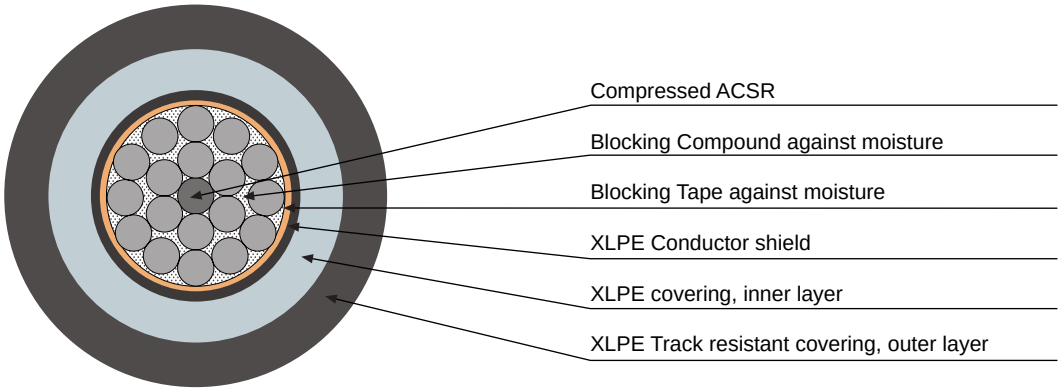
Triplexed Conductors, Copper Tape Shield.



Single Conductors, 33% Concentric Neutral



Single Conductors, 100% Concentric Neutral



Cables for Treed Areas