

MV URD Cables (15kV to 35kV)

SCOPE

These cables are used in dry or wet locations for urban underground distribution systems of single or three phase medium voltage power.

APPLICATION STANDARDS

ICEA S-94-649 Standard for concentric neutral cables rated 5 through 46kV

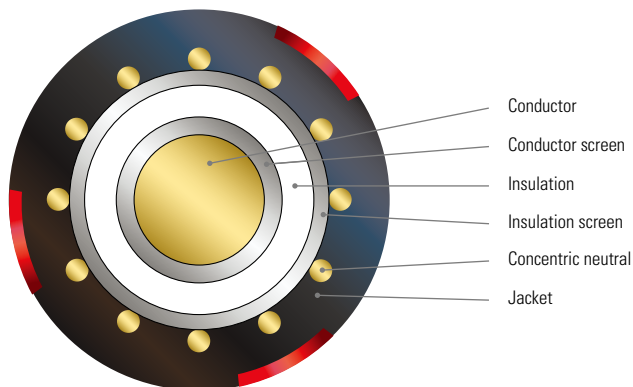
UL 1072 Medium-Voltage power cables

MATERIALS & CONSTRUCTION

Conductor	Compacted or compressed concentric lay stranded 1350 aluminum or annealed copper wires with swelling tape for impediment to longitudinal water penetration
Insulation	Triple extruded inner semi conductive layer-Tree retardant Cross linked Polyethylene (TRXLPE)
Concentric neutral	Helically applied, annealed, solid bare copper wires
Jacket	Black, non-conducting, sunlight-resistant, Linear Low-Density Polyethylene (LLDPE) extruded to fill spaces between neutral wires

OPTION

Red strip on jacket



15kV AI Conductor, 100% Insulation level

Nominal Cross Sectional Area	Conductor		Thickness					Diameter				*) Ampacity		
	Shape	Overall diameter (Approx.)	Conductor screen thickness (Min.)	Insulation thickness (Nom.)	Insulation screen thickness (Min./Max.)	Concentric neutral conductor	Jacket thickness (Min./Max.)	Insulation overall diameter		Insulation screen overall diameter		Completed cable diameter (Approx.)	Direct Buried	In Conduit in Air
								Min.	Max.	Min.	Max.			
AWG or kcmil	-	Inch	mils	mils	mils	No./AWG	mils	Inch		Inch		Inch	A	A
Full neutral														
1/0	Compacted	0.336	12	175	30 / 60	16 / 14	45 / 80	0.690	0.775	0.750	0.875	1.299	241	144
2/0	Compacted	0.376	12	175	30 / 60	20 / 14	45 / 80	0.730	0.815	0.790	0.915	1.346	272	163
3/0	Compacted	0.423	12	175	30 / 60	16 / 12	45 / 80	0.775	0.860	0.835	0.960	1.433	304	185
4/0	Compacted	0.475	12	175	30 / 60	20 / 12	45 / 80	0.830	0.910	0.890	1.010	1.496	339	210
One-third neutral														
1/0	Compacted	0.336	12	175	30 / 60	9 / 16	45 / 80	0.690	0.775	0.750	0.875	1.268	246	144
2/0	Compacted	0.376	12	175	30 / 60	11 / 16	45 / 80	0.730	0.815	0.790	0.915	1.315	279	164
3/0	Compacted	0.423	12	175	30 / 60	14 / 16	45 / 80	0.775	0.860	0.835	0.960	1.366	315	187
4/0	Compacted	0.475	12	175	30 / 60	17 / 16	45 / 80	0.830	0.910	0.890	1.010	1.429	355	213
250	Compacted	0.520	16	175	30 / 60	20 / 16	45 / 80	0.880	0.965	0.940	1.065	1.476	383	233
350	Compacted	0.616	16	175	30 / 60	18 / 14	45 / 80	0.980	1.065	1.040	1.165	1.614	446	281
500	Compacted	0.736	16	175	40 / 75	16 / 12	45 / 80	1.100	1.185	1.180	1.305	1.815	513	349
750	Compacted	0.908	20	175	40 / 75	24 / 12	70 / 120	1.280	1.365	1.360	1.485	2.087	575	425
1000	Compacted	1.060	20	175	40 / 75	31 / 12	70 / 120	1.430	1.515	1.510	1.635	2.256	645	495

*) Ampacity based on the condition as follows in accordance with IEEE 835, and for specific ampacities based on another installation conditions refer to tables in IEEE 835.

- 1) Direct buried in single circuit with 3 cables-spaced : 25°C earth ambient temperature, earth thermal resistivity of 90°C-cm/w, 90°C conductor temperature and 75% load factor
- 2) In conduit in air - triplexed: 40°C air ambient temperature, no sun, 90°C conductor temperature and 75% load factor

15kV AI Conductor, 133% Insulation level

Nominal Cross Sectional Area	Conductor		Thickness					Diameter				*) Ampacity		
	Shape	Overall diameter (Approx.)	Conductor screen thickness (Min.)	Insulation thickness (Nom.)	Insulation screen thickness (Min./Max.)	Concentric neutral conductor	Jacket thickness (Min./Max.)	Insulation overall diameter		Insulation screen overall diameter		Completed cable diameter (Approx.)	Direct Buried	In Conduit in Air
								Min.	Max.	Min.	Max.			
AWG or kcmil	-	Inch	mils	mils	mils	No./AWG	mils	Inch		Inch		Inch	A	A
Full neutral														
1/0	Compacted	0.336	12	220	30 / 60	16 / 14	45 / 80	0.780	0.865	0.840	0.965	1.398	241	144
2/0	Compacted	0.376	12	220	30 / 60	20 / 14	45 / 80	0.820	0.905	0.880	1.005	1.449	272	163
3/0	Compacted	0.423	12	220	30 / 60	16 / 12	45 / 80	0.865	0.955	0.925	1.055	1.535	304	185
4/0	Compacted	0.475	12	220	30 / 60	20 / 12	45 / 80	0.920	1.005	0.980	1.105	1.594	339	210
One-third neutral														
1/0	Compacted	0.336	12	220	30 / 60	9 / 16	45 / 80	0.780	0.865	0.840	0.965	1.370	246	144
2/0	Compacted	0.376	12	220	30 / 60	11 / 16	45 / 80	0.820	0.905	0.880	1.005	1.417	279	164
3/0	Compacted	0.423	12	220	30 / 60	14 / 16	45 / 80	0.865	0.955	0.925	1.055	1.465	315	187
4/0	Compacted	0.475	12	220	30 / 60	17 / 16	45 / 80	0.920	1.005	0.980	1.105	1.528	355	213
250	Compacted	0.520	16	220	30 / 60	20 / 16	45 / 80	0.970	1.060	1.030	1.160	1.579	383	233
350	Compacted	0.616	16	220	40 / 75	18 / 14	45 / 80	1.070	1.155	1.150	1.275	1.740	446	281
500	Compacted	0.736	16	220	40 / 75	16 / 12	70 / 120	1.190	1.275	1.270	1.395	1.984	513	349
750	Compacted	0.908	20	220	40 / 75	24 / 12	70 / 120	1.370	1.460	1.450	1.580	2.189	575	425
1000	Compacted	1.060	20	220	55 / 90	31 / 12	70 / 120	1.520	1.610	1.630	1.760	2.370	645	495

*) Ampacity based on the condition as follows in accordance with IEEE 835, and for specific ampacities based on another installation conditions refer to tables in IEEE 835.

- 1) Direct buried in single circuit with 3 cables-spaced : 25°C earth ambient temperature, earth thermal resistivity of 90°C-cm/w, 90°C conductor temperature and 75% load factor
- 2) In conduit in air - triplexed: 40°C air ambient temperature, no sun, 90°C conductor temperature and 75% load factor

25kV AI Conductor, 100% Insulation level

Nominal Cross Sectional Area	Conductor		Thickness					Diameter				*) Ampacity		
	Shape	Overall diameter (Approx.)	Conductor screen thickness (Min.)	Insulation thickness (Nom.)	Insulation screen thickness (Min./Max.)	Concentric neutral conductor	Jacket thickness (Min./Max.)	Insulation overall diameter		Insulation screen overall diameter		Completed cable diameter (Approx.)	Direct Buried	In Conduit in Air
								Min.	Max.	Min.	Max.			
AWG or kcmil	-	Inch	mils	mils	mils	No./AWG	mils	Inch		Inch		Inch	A	A
Full neutral														
1/0	Compacted	0.336	12	260	30 / 60	16 / 14	45 / 80	0.850	0.940	0.910	1.040	1.488	232	146
2/0	Compacted	0.376	12	260	30 / 60	20 / 14	45 / 80	0.890	0.980	0.950	1.080	1.539	262	171
3/0	Compacted	0.423	12	260	30 / 60	16 / 12	45 / 80	0.935	1.030	0.995	1.130	1.626	295	193
4/0	Compacted	0.475	12	260	30 / 60	20 / 12	45 / 80	0.990	1.080	1.050	1.180	1.685	330	219
One-third neutral														
1/0	Compacted	0.336	12	260	30 / 60	9 / 16	45 / 80	0.850	0.940	0.910	1.040	1.461	235	147
2/0	Compacted	0.376	12	260	30 / 60	11 / 16	45 / 80	0.890	0.980	0.950	1.080	1.508	267	171
3/0	Compacted	0.423	12	260	30 / 60	14 / 16	45 / 80	0.935	1.030	0.995	1.130	1.559	302	195
4/0	Compacted	0.475	12	260	30 / 60	17 / 16	45 / 80	0.990	1.080	1.050	1.180	1.618	342	221
250	Compacted	0.520	16	260	40 / 75	20 / 16	45 / 80	1.040	1.135	1.120	1.255	1.693	367	242
350	Compacted	0.616	16	260	40 / 75	18 / 14	45 / 80	1.140	1.230	1.220	1.350	1.831	431	290
500	Compacted	0.736	16	260	40 / 75	16 / 12	70 / 120	1.260	1.350	1.340	1.470	2.075	502	350
750	Compacted	0.908	20	260	40 / 75	24 / 12	70 / 120	1.440	1.535	1.520	1.655	2.280	577	437
1000	Compacted	1.060	20	260	55 / 90	31 / 12	70 / 120	1.590	1.685	1.700	1.835	2.461	649	488

*) Ampacity based on the condition as follows in accordance with IEEE 835, and for specific ampacities based on another installation conditions refer to tables in IEEE 835.

- 1) Direct buried in single circuit with 3 cables-spaced : 25°C earth ambient temperature, earth thermal resistivity of 90°C-cm/w, 90°C conductor temperature and 75% load factor
- 2) In conduit in air - triplexed: 40°C air ambient temperature, no sun, 90°C conductor temperature and 75% load factor

25kV AI Conductor, 133% Insulation level

Nominal Cross Sectional Area	Conductor		Thickness					Diameter				*) Ampacity		
	Shape	Overall diameter (Approx.)	Conductor screen thickness (Min.)	Insulation thickness (Nom.)	Insulation screen thickness (Min./Max.)	Concentric neutral conductor	Jacket thickness (Min./Max.)	Insulation overall diameter		Insulation screen overall diameter		Completed cable diameter (Approx.)	Direct Buried	In Conduit in Air
								Min.	Max.	Min.	Max.			
AWG or kcmil	-	Inch	mils	mils	mils	No./AWG	mils	Inch		Inch		Inch	A	A
Full neutral														
1/0	Compacted	0.336	12	320	30 / 60	16 / 14	45 / 80	0.970	1.065	0.750	1.165	1.626	232	146
2/0	Compacted	0.376	12	320	40 / 75	20 / 14	45 / 80	1.010	1.105	0.790	1.225	1.697	262	171
3/0	Compacted	0.423	12	320	40 / 75	16 / 12	45 / 80	1.055	1.155	0.835	1.275	1.783	295	193
4/0	Compacted	0.475	12	320	40 / 75	20 / 12	45 / 80	1.110	1.205	0.890	1.325	1.846	330	219
One-third neutral														
1/0	Compacted	0.336	12	320	30 / 60	9 / 16	45 / 80	0.970	1.065	1.030	1.165	1.594	235	147
2/0	Compacted	0.376	12	320	40 / 75	11 / 16	45 / 80	1.010	1.105	1.090	1.225	1.669	267	171
3/0	Compacted	0.423	12	320	40 / 75	14 / 16	45 / 80	1.055	1.155	1.135	1.275	1.717	302	195
4/0	Compacted	0.475	12	320	40 / 75	17 / 16	45 / 80	1.110	1.205	1.190	1.325	1.780	342	221
250	Compacted	0.520	16	320	40 / 75	20 / 16	45 / 80	1.160	1.260	1.240	1.380	1.827	367	242
350	Compacted	0.616	16	320	40 / 75	18 / 14	70 / 120	1.260	1.355	1.340	1.475	2.031	431	290
500	Compacted	0.736	16	320	40 / 75	16 / 12	70 / 120	1.380	1.475	1.460	1.595	2.209	502	350
750	Compacted	0.908	20	320	55 / 90	24 / 12	70 / 120	1.560	1.660	1.670	1.810	2.425	577	437
1000	Compacted	1.060	20	320	55 / 90	31 / 12	70 / 120	1.710	1.810	1.820	1.960	2.594	649	488

*) Ampacity based on the condition as follows in accordance with IEEE 835, and for specific ampacities based on another installation conditions refer to tables in IEEE 835.

- 1) Direct buried in single circuit with 3 cables-spaced : 25°C earth ambient temperature, earth thermal resistivity of 90°C-cm/w, 90°C conductor temperature and 75% load factor
- 2) In conduit in air - triplexed: 40°C air ambient temperature, no sun, 90°C conductor temperature and 75% load factor

35kV AI Conductor, 100% Insulation level

Nominal Cross Sectional Area	Conductor		Thickness					Diameter				*) Ampacity		
	Shape	Overall diameter (Approx.)	Conductor screen thickness (Min.)	Insulation thickness (Nom.)	Insulation screen thickness (Min./Max.)	Concentric neutral conductor	Jacket thickness (Min./Max.)	Insulation overall diameter		Insulation screen overall diameter		Completed cable diameter (Approx.)	Direct Buried	In Conduit in Air
								Min.	Max.	Min.	Max.			
AWG or kcmil	-	Inch	mils	mils	mils	No./AWG	mils	Inch		Inch		Inch	A	A
Full neutral														
1/0	Compacted	0.336	12	345	40 / 75	16 / 14	45 / 80	1.020	1.120	1.100	1.240	1.705	232	146
2/0	Compacted	0.376	12	345	40 / 75	20 / 14	45 / 80	1.060	1.160	1.140	1.280	1.756	262	171
3/0	Compacted	0.423	12	345	40 / 75	16 / 12	45 / 80	1.105	1.205	1.185	1.325	1.843	295	193
4/0	Compacted	0.475	12	345	40 / 75	20 / 12	45 / 80	1.160	1.260	1.240	1.380	1.906	330	219
One-third neutral														
1/0	Compacted	0.336	12	345	40 / 75	9 / 16	45 / 80	1.020	1.120	1.100	1.240	1.677	235	147
2/0	Compacted	0.376	12	345	40 / 75	11 / 16	45 / 80	1.060	1.160	1.140	1.280	1.724	267	171
3/0	Compacted	0.423	12	345	40 / 75	14 / 16	45 / 80	1.105	1.205	1.185	1.325	1.776	302	195
4/0	Compacted	0.475	12	345	40 / 75	17 / 16	45 / 80	1.160	1.260	1.240	1.380	1.835	342	221
250	Compacted	0.520	16	345	40 / 75	20 / 16	45 / 80	1.210	1.315	1.290	1.435	1.886	367	242
350	Compacted	0.616	16	345	40 / 75	18 / 14	70 / 120	1.310	1.410	1.390	1.530	2.091	431	290
500	Compacted	0.736	16	345	40 / 75	16 / 12	70 / 120	1.430	1.530	1.510	1.650	2.264	502	350
750	Compacted	0.908	20	345	55 / 90	24 / 12	70 / 120	1.610	1.710	1.720	1.860	2.484	577	437
1000	Compacted	1.060	20	345	55 / 90	31 / 12	70 / 120	1.760	1.865	1.870	2.015	2.650	649	488

*) Ampacity based on the condition as follows in accordance with IEEE 835, and for specific ampacities based on another installation conditions refer to tables in IEEE 835.

- 1) Direct buried in single circuit with 3 cables-spaced : 25°C earth ambient temperature, earth thermal resistivity of 90°C-cm/w, 90°C conductor temperature and 75% load factor
- 2) In conduit in air - triplexed: 40°C air ambient temperature, no sun, 90°C conductor temperature and 75% load factor

35kV AI Conductor, 133% Insulation level

Nominal Cross Sectional Area	Conductor		Thickness					Diameter				*) Ampacity		
	Shape	Overall diameter (Approx.)	Conductor screen thickness (Min.)	Insulation thickness (Nom.)	Insulation screen thickness (Min./Max.)	Concentric neutral conductor	Jacket thickness (Min./Max.)	Insulation overall diameter		Insulation screen overall diameter		Completed cable diameter (Approx.)	Direct Buried	In Conduit in Air
								Min.	Max.	Min.	Max.			
AWG or kcmil	-	Inch	mils	mils	mils	No./AWG	mils	Inch		Inch		Inch	A	A
Full neutral														
1/0	Compacted	0.336	12	420	30 / 60	16 / 14	45 / 80	1.160	1.265	1.240	1.385	1.874	232	146
2/0	Compacted	0.376	12	420	30 / 60	20 / 14	45 / 80	1.200	1.305	1.280	1.425	1.925	262	171
3/0	Compacted	0.423	12	420	30 / 60	16 / 12	70 / 120	1.245	1.355	1.325	1.475	2.012	295	193
4/0	Compacted	0.475	12	420	30 / 60	20 / 12	70 / 120	1.300	1.405	1.380	1.525	2.142	330	219
One-third neutral														
1/0	Compacted	0.336	12	420	40 / 75	9 / 16	45 / 80	1.160	1.265	1.240	1.385	1.846	235	147
2/0	Compacted	0.376	12	420	40 / 75	11 / 16	45 / 80	1.200	1.305	1.280	1.425	1.894	267	171
3/0	Compacted	0.423	12	420	40 / 75	14 / 16	45 / 80	1.245	1.355	1.325	1.475	1.945	302	195
4/0	Compacted	0.475	12	420	40 / 75	17 / 16	70 / 120	1.300	1.405	1.380	1.525	2.075	342	221
250	Compacted	0.520	16	420	40 / 75	20 / 16	70 / 120	1.350	1.460	1.430	1.580	2.122	367	242
350	Compacted	0.616	16	420	40 / 75	18 / 14	70 / 120	1.450	1.555	1.530	1.675	2.260	431	290
500	Compacted	0.736	16	420	55 / 90	16 / 12	70 / 120	1.570	1.675	1.680	1.825	2.449	502	350
750	Compacted	0.908	20	420	55 / 90	24 / 12	70 / 120	1.750	1.860	1.860	2.010	2.650	577	437
1000	Compacted	1.060	20	420	55 / 90	31 / 12	70 / 120	1.900	2.010	2.010	2.160	2.819	649	488

*) Ampacity based on the condition as follows in accordance with IEEE 835, and for specific ampacities based on another installation conditions refer to tables in IEEE 835.

- 1) Direct buried in single circuit with 3 cables-spaced : 25°C earth ambient temperature, earth thermal resistivity of 90°C-cm/w, 90°C conductor temperature and 75% load factor
- 2) In conduit in air - triplexed: 40°C air ambient temperature, no sun, 90°C conductor temperature and 75% load factor

15kV Cu Conductor, 100% Insulation level

Nominal Cross Sectional Area	Conductor		Thickness					Diameter				*) Ampacity		
	Shape	Overall diameter (Approx.)	Conductor screen thickness (Min.)	Insulation thickness (Nom.)	Insulation screen thickness (Min./Max.)	Concentric neutral conductor	Jacket thickness (Min./Max.)	Insulation overall diameter		Insulation screen overall diameter		Completed cable diameter (Approx.)	Direct Buried	In Conduit in Air
								Min.	Max.	Min.	Max.			
AWG or kcmil	-	Inch	mils	mils	mils	No./AWG	mils	Inch		Inch		Inch	A	A
Full neutral														
1/0	Compacted	0.336	12	175	30 / 60	16 / 12	45 / 80	0.690	0.775	0.750	0.875	1.335	299	183
2/0	Compacted	0.376	12	175	30 / 60	20 / 12	45 / 80	0.730	0.815	0.790	0.915	1.382	333	207
3/0	Compacted	0.423	12	175	30 / 60	25 / 12	45 / 80	0.775	0.860	0.835	0.960	1.433	369	233
4/0	Compacted	0.475	12	175	30 / 60	32 / 12	45 / 80	0.830	0.910	0.890	1.010	1.496	408	262
One-third neutral														
1/0	Compacted	0.336	12	175	30 / 60	14 / 16	45 / 80	0.690	0.775	0.750	0.875	1.268	310	184
2/0	Compacted	0.376	12	175	30 / 60	18 / 16	45 / 80	0.730	0.815	0.790	0.915	1.315	349	210
3/0	Compacted	0.423	12	175	30 / 60	14 / 14	45 / 80	0.775	0.860	0.835	0.960	1.394	389	238
4/0	Compacted	0.475	12	175	30 / 60	18 / 14	45 / 80	0.830	0.910	0.890	1.010	1.457	432	270
250	Compacted	0.520	16	175	30 / 60	21 / 14	45 / 80	0.880	0.965	0.940	1.065	1.508	460	294
350	Compacted	0.616	16	175	30 / 60	18 / 12	45 / 80	0.980	1.065	1.040	1.165	1.65	516	349
500	Compacted	0.736	16	175	40 / 75	26 / 12	45 / 80	1.100	1.185	1.180	1.305	1.815	572	423
750	Compacted	0.908	20	175	40 / 75	25 / 10	70 / 120	1.280	1.365	1.360	1.485	2.134	635	489
1000	Compacted	1.060	20	175	40 / 75	32 / 10	70 / 120	1.430	1.515	1.510	1.635	2.303	675	560

*) Ampacity based on the condition as follows in accordance with IEEE 835, and for specific ampacities based on another installation conditions refer to tables in IEEE 835.

- 1) Direct buried in single circuit with 3 cables-spaced : 25°C earth ambient temperature, earth thermal resistivity of 90°C-cm/w, 90°C conductor temperature and 75% load factor
- 2) In conduit in air - triplexed: 40°C air ambient temperature, no sun, 90°C conductor temperature and 75% load factor

15kV Cu Conductor, 133% Insulation level

Nominal Cross Sectional Area	Conductor		Thickness					Diameter				*) Ampacity		
	Shape	Overall diameter (Approx.)	Conductor screen thickness (Min.)	Insulation thickness (Nom.)	Insulation screen thickness (Min./Max.)	Concentric neutral conductor	Jacket thickness (Min./Max.)	Insulation overall diameter		Insulation screen overall diameter		Completed cable diameter (Approx.)	Direct Buried	In Conduit in Air
								Min.	Max.	Min.	Max.			
AWG or kcmil	-	Inch	mils	mils	mils	No./AWG	mils	Inch		Inch		Inch	A	A
Full neutral														
1/0	Compacted	0.336	12	220	30 / 60	16 / 12	45 / 80	0.780	0.865	0.840	0.965	1.398	299	183
2/0	Compacted	0.376	12	220	30 / 60	20 / 12	45 / 80	0.820	0.905	0.880	1.005	1.449	333	207
3/0	Compacted	0.423	12	220	30 / 60	25 / 12	45 / 80	0.865	0.955	0.925	1.055	1.535	369	233
4/0	Compacted	0.475	12	220	30 / 60	32 / 12	45 / 80	0.920	1.005	0.980	1.105	1.594	408	262
One-third neutral														
1/0	Compacted	0.336	12	220	30 / 60	14 / 16	45 / 80	0.780	0.865	0.840	0.965	1.370	310	184
2/0	Compacted	0.376	12	220	30 / 60	18 / 16	45 / 80	0.820	0.905	0.880	1.005	1.417	349	210
3/0	Compacted	0.423	12	220	30 / 60	14 / 14	45 / 80	0.865	0.955	0.925	1.055	1.496	389	238
4/0	Compacted	0.475	12	220	30 / 60	18 / 14	45 / 80	0.920	1.005	0.980	1.105	1.559	432	270
250	Compacted	0.520	16	220	30 / 60	21 / 14	45 / 80	0.970	1.060	1.030	1.160	1.606	460	294
350	Compacted	0.616	16	220	40 / 75	18 / 12	45 / 80	1.070	1.155	1.150	1.275	1.776	516	349
500	Compacted	0.736	16	220	40 / 75	26 / 12	70 / 120	1.190	1.275	1.270	1.395	1.984	572	423
750	Compacted	0.908	20	220	40 / 75	25 / 10	70 / 120	1.370	1.460	1.450	1.580	2.236	635	489
1000	Compacted	1.060	20	220	55 / 90	32 / 10	70 / 120	1.520	1.610	1.630	1.760	2.417	675	560

*) Ampacity based on the condition as follows in accordance with IEEE 835, and for specific ampacities based on another installation conditions refer to tables in IEEE 835.

- 1) Direct buried in single circuit with 3 cables-spaced : 25°C earth ambient temperature, earth thermal resistivity of 90°C-cm/w, 90°C conductor temperature and 75% load factor
- 2) In conduit in air - triplexed: 40°C air ambient temperature, no sun, 90°C conductor temperature and 75% load factor

25kV Cu Conductor, 100% Insulation level

Nominal Cross Sectional Area	Conductor		Thickness					Diameter				*) Ampacity		
	Shape	Overall diameter (Approx.)	Conductor screen thickness (Min.)	Insulation thickness (Nom.)	Insulation screen thickness (Min./Max.)	Concentric neutral conductor	Jacket thickness (Min./Max.)	Insulation overall diameter		Insulation screen overall diameter		Completed cable diameter (Approx.)	Direct Buried	In Conduit in Air
								Min.	Max.	Min.	Max.			
AWG or kcmil	-	Inch	mils	mils	mils	No./AWG	mils	Inch		Inch		Inch	A	A
Full neutral														
1/0	Compacted	0.336	12	260	30 / 60	16 / 12	45 / 80	0.850	0.940	0.910	1.040	1.528	290	186
2/0	Compacted	0.376	12	260	30 / 60	20 / 12	45 / 80	0.890	0.980	0.950	1.080	1.575	325	216
3/0	Compacted	0.423	12	260	30 / 60	25 / 12	45 / 80	0.935	1.030	0.995	1.130	1.626	362	244
4/0	Compacted	0.475	12	260	30 / 60	32 / 12	45 / 80	0.990	1.080	1.050	1.180	1.685	401	274
One-third neutral														
1/0	Compacted	0.336	12	260	30 / 60	14 / 16	45 / 80	0.850	0.940	0.910	1.040	1.461	298	188
2/0	Compacted	0.376	12	260	30 / 60	18 / 16	45 / 80	0.890	0.980	0.950	1.080	1.508	337	219
3/0	Compacted	0.423	12	260	30 / 60	14 / 14	45 / 80	0.935	1.030	0.995	1.130	1.587	378	248
4/0	Compacted	0.475	12	260	30 / 60	18 / 14	45 / 80	0.990	1.080	1.050	1.180	1.650	422	281
250	Compacted	0.520	16	260	40 / 75	21 / 14	45 / 80	1.040	1.135	1.120	1.255	1.724	447	306
350	Compacted	0.616	16	260	40 / 75	18 / 12	45 / 80	1.140	1.230	1.220	1.350	1.866	509	362
500	Compacted	0.736	16	260	40 / 75	26 / 12	70 / 120	1.260	1.350	1.340	1.470	2.075	570	426
750	Compacted	0.908	20	260	40 / 75	25 / 10	70 / 120	1.440	1.535	1.520	1.655	2.327	642	508
1000	Compacted	1.060	20	260	55 / 90	32 / 10	70 / 120	1.590	1.685	1.700	1.835	2.508	690	566

*) Ampacity based on the condition as follows in accordance with IEEE 835, and for specific ampacities based on another installation conditions refer to tables in IEEE 835.

- 1) Direct buried in single circuit with 3 cables-spaced : 25°C earth ambient temperature, earth thermal resistivity of 90°C-cm/w, 90°C conductor temperature and 75% load factor
- 2) In conduit in air - triplexed: 40°C air ambient temperature, no sun, 90°C conductor temperature and 75% load factor

25kV Cu Conductor, 133% Insulation level

Nominal Cross Sectional Area	Conductor		Thickness					Diameter				*) Ampacity		
	Shape	Overall diameter (Approx.)	Conductor screen thickness (Min.)	Insulation thickness (Nom.)	Insulation screen thickness (Min./Max.)	Concentric neutral conductor	Jacket thickness (Min./Max.)	Insulation overall diameter		Insulation screen overall diameter		Completed cable diameter (Approx.)	Direct Buried	In Conduit in Air
								Min.	Max.	Min.	Max.			
AWG or kcmil	-	Inch	mils	mils	mils	No./AWG	mils	Inch		Inch		Inch	A	A
Full neutral														
1/0	Compacted	0.336	12	320	30 / 60	16 / 12	45 / 80	0.970	1.065	0.750	1.165	1.661	290	186
2/0	Compacted	0.376	12	320	40 / 75	20 / 12	45 / 80	1.010	1.105	0.790	1.225	1.736	325	216
3/0	Compacted	0.423	12	320	40 / 75	25 / 12	45 / 80	1.055	1.155	0.835	1.275	1.783	362	244
4/0	Compacted	0.475	12	320	40 / 75	32 / 12	45 / 80	1.110	1.205	0.890	1.325	1.846	401	274
One-third neutral														
1/0	Compacted	0.336	12	320	30 / 60	14 / 16	45 / 80	0.970	1.065	1.030	1.165	1.594	298	188
2/0	Compacted	0.376	12	320	40 / 75	18 / 16	45 / 80	1.010	1.105	1.090	1.225	1.669	337	219
3/0	Compacted	0.423	12	320	40 / 75	14 / 14	45 / 80	1.055	1.155	1.135	1.275	1.748	378	248
4/0	Compacted	0.475	12	320	40 / 75	18 / 14	45 / 80	1.110	1.205	1.190	1.325	1.811	422	281
250	Compacted	0.520	16	320	40 / 75	21 / 14	45 / 80	1.160	1.260	1.240	1.380	1.858	447	306
350	Compacted	0.616	16	320	40 / 75	18 / 12	70 / 120	1.260	1.355	1.340	1.475	2.071	509	362
500	Compacted	0.736	16	320	40 / 75	26 / 12	70 / 120	1.380	1.475	1.460	1.595	2.209	570	426
750	Compacted	0.908	20	320	55 / 90	25 / 10	70 / 120	1.560	1.660	1.670	1.810	2.472	642	508
1000	Compacted	1.060	20	320	55 / 90	32 / 10	70 / 120	1.710	1.810	1.820	1.960	2.642	690	566

*) Ampacity based on the condition as follows in accordance with IEEE 835, and for specific ampacities based on another installation conditions refer to tables in IEEE 835.

- 1) Direct buried in single circuit with 3 cables-spaced : 25°C earth ambient temperature, earth thermal resistivity of 90°C-cm/w, 90°C conductor temperature and 75% load factor
- 2) In conduit in air - triplexed: 40°C air ambient temperature, no sun, 90°C conductor temperature and 75% load factor

35kV Cu Conductor, 100% Insulation level

Nominal Cross Sectional Area	Conductor		Thickness					Diameter				*) Ampacity		
	Shape	Overall diameter (Approx.)	Conductor screen thickness (Min.)	Insulation thickness (Nom.)	Insulation screen thickness (Min./Max.)	Concentric neutral conductor	Jacket thickness (Min./Max.)	Insulation overall diameter		Insulation screen overall diameter		Completed cable diameter (Approx.)	Direct Buried	In Conduit in Air
								Min.	Max.	Min.	Max.			
AWG or kcmil	-	Inch	mils	mils	mils	No./AWG	mils	Inch		Inch		Inch	A	A
Full neutral														
1/0	Compacted	0.336	12	345	40 / 75	16 / 12	45 / 80	1.020	1.120	1.100	1.240	1.744	290	186
2/0	Compacted	0.376	12	345	40 / 75	20 / 12	45 / 80	1.060	1.160	1.140	1.280	1.791	325	216
3/0	Compacted	0.423	12	345	40 / 75	25 / 12	45 / 80	1.105	1.205	1.185	1.325	1.843	362	244
4/0	Compacted	0.475	12	345	40 / 75	32 / 12	45 / 80	1.160	1.260	1.240	1.380	1.906	401	274
One-third neutral														
1/0	Compacted	0.336	12	345	40 / 75	14 / 16	45 / 80	1.020	1.120	1.100	1.240	1.677	298	188
2/0	Compacted	0.376	12	345	40 / 75	18 / 16	45 / 80	1.060	1.160	1.140	1.280	1.724	337	219
3/0	Compacted	0.423	12	345	40 / 75	14 / 14	45 / 80	1.105	1.205	1.185	1.325	1.803	378	248
4/0	Compacted	0.475	12	345	40 / 75	18 / 14	45 / 80	1.160	1.260	1.240	1.380	1.866	422	281
250	Compacted	0.520	16	345	40 / 75	21 / 14	45 / 80	1.210	1.315	1.290	1.435	1.984	447	306
350	Compacted	0.616	16	345	40 / 75	18 / 12	70 / 120	1.310	1.410	1.390	1.530	2.126	509	362
500	Compacted	0.736	16	345	40 / 75	26 / 12	70 / 120	1.430	1.530	1.510	1.650	2.264	570	426
750	Compacted	0.908	20	345	55 / 90	25 / 10	70 / 120	1.610	1.710	1.720	1.860	2.531	642	508
1000	Compacted	1.060	20	345	55 / 90	32 / 10	70 / 120	1.760	1.865	1.870	2.015	2.701	690	566

*) Ampacity based on the condition as follows in accordance with IEEE 835, and for specific ampacities based on another installation conditions refer to tables in IEEE 835.

- 1) Direct buried in single circuit with 3 cables-spaced : 25°C earth ambient temperature, earth thermal resistivity of 90°C-cm/w, 90°C conductor temperature and 75% load factor
- 2) In conduit in air - triplexed: 40°C air ambient temperature, no sun, 90°C conductor temperature and 75% load factor

35kV Cu Conductor, 133% Insulation level

Nominal Cross Sectional Area	Conductor		Thickness					Diameter				*) Ampacity		
	Shape	Overall diameter (Approx.)	Conductor screen thickness (Min.)	Insulation thickness (Nom.)	Insulation screen thickness (Min./Max.)	Concentric neutral conductor	Jacket thickness (Min./Max.)	Insulation overall diameter		Insulation screen overall diameter		Completed cable diameter (Approx.)	Direct Buried	In Conduit in Air
								Min.	Max.	Min.	Max.			
AWG or kcmil	-	Inch	mils	mils	mils	No./AWG	mils	Inch		Inch		Inch	A	A
Full neutral														
1/0	Compacted	0.336	12	420	30 / 60	16 / 12	45 / 80	1.160	1.265	1.240	1.385	1.913	290	186
2/0	Compacted	0.376	12	420	30 / 60	20 / 12	45 / 80	1.200	1.305	1.280	1.425	2.031	325	216
3/0	Compacted	0.423	12	420	30 / 60	25 / 12	70 / 120	1.245	1.355	1.325	1.475	2.079	362	244
4/0	Compacted	0.475	12	420	30 / 60	32 / 12	70 / 120	1.300	1.405	1.380	1.525	2.142	401	274
One-third neutral														
1/0	Compacted	0.336	12	420	40 / 75	14 / 16	45 / 80	1.160	1.265	1.240	1.385	1.846	298	188
2/0	Compacted	0.376	12	420	40 / 75	18 / 16	45 / 80	1.200	1.305	1.280	1.425	1.894	337	219
3/0	Compacted	0.423	12	420	40 / 75	14 / 14	45 / 80	1.245	1.355	1.325	1.475	2.039	378	248
4/0	Compacted	0.475	12	420	40 / 75	18 / 14	70 / 120	1.300	1.405	1.380	1.525	2.102	422	281
250	Compacted	0.520	16	420	40 / 75	21 / 14	70 / 120	1.350	1.460	1.430	1.580	2.154	447	306
350	Compacted	0.616	16	420	40 / 75	18 / 12	70 / 120	1.450	1.555	1.530	1.675	2.295	509	362
500	Compacted	0.736	16	420	55 / 90	26 / 12	70 / 120	1.570	1.675	1.680	1.825	2.449	570	426
750	Compacted	0.908	20	420	55 / 90	25 / 10	70 / 120	1.750	1.860	1.860	2.010	2.701	642	508
1000	Compacted	1.060	20	420	55 / 90	32 / 10	70 / 120	1.900	2.010	2.010	2.160	2.870	690	566

*) Ampacity based on the condition as follows in accordance with IEEE 835, and for specific ampacities based on another installation conditions refer to tables in IEEE 835.

- 1) Direct buried in single circuit with 3 cables-spaced : 25°C earth ambient temperature, earth thermal resistivity of 90°C-cm/w, 90°C conductor temperature and 75% load factor
- 2) In conduit in air - triplexed: 40°C air ambient temperature, no sun, 90°C conductor temperature and 75% load factor