

EmPowr® Link Shielded Power Cable 5-46 kV

Copper Conductor TRXLPE Insulation Copper Tape Shielded Power Cable



COPPER CONDUCTOR COPPER TAPE SHIELDED 5 kV POWER CABLE

COMPACT CONDUCTOR		DIAMETER (2) (mm)				NOM. JACKET THKN. (2) (mm)	APPROX. WEIGHT (kg/km)			AMPACITY (3)	
SIZE (AWG OR kcmil)	NO. OF WIRES (1)	INS.	INS. SHIELD	CU TAPE	PVC JACKET		CU COND.	CU SHIELD	TOTAL	DIRECT BURIED	IN DUCT
2.29 mm (90 mils) NOMINAL TRXLPE INSULATION – 5 kV 100% or 133%											
2	7	12.3	13.8	14.0	17.3	1.7	305	31	553	230	200
1	19	13.1	14.6	14.8	18.1	1.7	385	33	646	265	225
1/0	19	14.0	15.5	15.7	19.0	1.7	485	35	766	300	260
2/0	19	15.0	16.6	16.7	20.0	1.7	612	38	913	340	290
3/0	19	16.2	17.8	17.9	21.2	2.0	771	40	1097	385	330
4/0	19	17.6	19.1	19.2	23.3	2.0	972	43	1358	440	375
250	37	18.9	20.4	20.6	24.6	2.0	1148	46	1565	480	420
350	37	21.3	22.9	23.0	27.1	2.0	1609	52	2078	580	510
500	37	24.4	25.9	26.1	30.1	2.0	2298	59	2834	705	620
750	61	29.0	30.5	30.6	34.7	2.0	3447	69	4091	865	770
1000	61	32.8	34.3	34.5	38.6	2.0	4596	78	5327	990	915

COPPER CONDUCTOR COPPER TAPE SHIELDED 15 kV POWER CABLE

COMPACT CONDUCTOR		DIAMETER (4) (mm)				NOM. JACKET THKN. (4) (mm)	APPROX. WEIGHT (kg/km)			AMPACITY (3)	
SIZE (AWG OR kcmil)	NO. OF WIRES (1)	INS.	INS. SHIELD	CU TAPE	PVC JACKET		CU COND.	CU SHIELD	TOTAL	DIRECT BURIED	IN DUCT
4.45 mm (175 mils) NOMINAL TRXLPE INSULATION – 15 kV 100%											
2	7	16.6	18.1	18.3	21.6	2.0	305	46	698	230	200
1	19	17.4	18.9	19.1	23.1	2.0	385	49	829	265	225
1/0	19	18.3	19.9	20.0	24.1	2.0	485	51	956	300	260
2/0	19	19.4	20.9	21.1	25.1	2.0	612	54	1112	340	290
3/0	19	20.5	22.1	22.3	26.3	2.0	771	57	1305	385	330
4/0	19	21.9	23.4	23.6	27.6	2.0	972	60	1544	440	375
250	37	23.2	24.7	24.9	29.0	2.0	1148	63	1759	480	420
350	37	25.7	27.2	27.4	31.4	2.0	1609	70	2289	580	510
500	37	28.7	30.2	30.4	34.5	2.0	2298	77	3065	705	620
750	61	33.3	34.8	35.0	39.0	2.0	3447	89	4351	865	770
1000	61	37.1	38.7	38.8	42.9	2.0	4596	99	5612	990	915

5.59 mm (220 mils) NOMINAL TRXLPE INSULATION – 15 kV 133%

2	7	18.9	20.4	20.6	24.6	2.0	305	52	818	230	200
1	19	19.7	21.2	21.4	25.5	2.0	385	54	921	265	225
1/0	19	20.6	22.1	22.3	26.4	2.0	485	57	1051	300	260
2/0	19	21.6	23.2	23.3	27.4	2.0	612	59	1209	340	290
3/0	19	22.8	24.4	24.5	28.6	2.0	771	62	1407	385	330
4/0	19	24.2	25.7	25.9	29.9	2.0	972	66	1650	440	375
250	37	25.5	29.1	29.2	33.4	2.0	1148	74	1974	480	420
350	37	27.9	31.5	31.7	35.7	2.0	1609	81	2519	580	510
500	37	31.0	32.5	32.7	36.8	2.0	2298	83	3193	705	620
750	61	35.6	37.1	37.3	41.3	2.0	3447	95	4495	865	770
1000	61	39.4	40.9	41.1	46.7	2.8	4596	105	5901	990	915

(1) For compact stranded constructions, the number of wires may be reduced as follows:

- 19-Wire Constructions – 18 Wires Minimum
- 37-Wire Constructions – 35 Wires Minimum
- 61-Wire Constructions – 58 Wires Minimum

(2) Extruded layer thicknesses are in accordance with CSA C68.10 for Shielded Power Cable for Commercial and Industrial Applications, 5-46 kV.

(3) Ampacities based on earth thermal resistivity of 90°C-cm/watt, 90°C conductor temperature, 25°C earth ambient temperature, 75% load factor, and 36" depth of burial. Values based on one three phase circuit, one conductor per phase, in flat adjacent configuration with neutral wires bonded at each end. Ducts sized for 40% fill. For specific ampacities, contact your General Cable sales representative.

(4) Extruded layer thicknesses are in accordance with CSA C68.5 for Primary Shielded and Concentric Neutral Cable for Distribution Utilities.

Dimensions and weights not designated minimum or maximum are nominal values and subject to manufacturing tolerances. In this context, weight means mass.

Product Construction:

Complete Cable:

Cross-linked semi-conducting conductor shield, insulation and semi-conducting insulation shield are extruded over a solid or stranded aluminum or copper conductor and cured in a single operation. An uncoated copper tape (helically applied), polyester separator tape and extruded black PVC jacket are applied over the cable core.

Conductor:

Class B concentric lay stranded compact annealed uncoated copper or compact 3/4 to full hard 1350 aluminum (all sizes). The stranded conductors are longitudinally water blocked (STRANDFILL®) and tested in accordance with ICEA T-31-610.

Conductor Shield:

Extruded semi-conducting thermosetting polymeric stress control layer.

Insulation:

Extruded, unfilled Tree Retardant Cross-linked Polyethylene (TRXLPE) as defined in CSA C68.5 and CSA C68.10.

Insulation Shield:

Extruded semi-conducting thermosetting layer, clean and free stripping from insulation.

Metallic Shield:

Flat uncoated helically applied 3.0 mil thick overlapped copper tape.

Jacket:

Black, non-conducting, sunlight-resistant, FT1, low-temperature PVC.

Features and Benefits:

- CSA C68.5 for 15-46 kV
- CSA C68.10 for 5 kV
- 90°C/-40°C (LTGG)
- Triple extruded for clean interfaces
- Dry nitrogen cure for enhanced performance
- Class 10,000 environment utilized for material handling
- Excellent moisture resistance
- High dielectric strength
- Low dielectric loss
- Excellent resistance to treeing
- Clean stripping insulation shield
- Sequential meter marking
- Sunlight-resistant

