EmPowr® Link Shielded Power Cable 15-35 kV

Al Conductor TRXLPE Insulation Longitudinally Applied Corrugated Tape LLDPE Jacket

Product Construction:

Complete Cable:

Lead-free cross-linked semi-conducting conductor shield, insulation and semi-conducting insulation shield are extruded over a solid or stranded aluminum conductor and cured in a single operation. Corrugated copper tape and an extruded black jacket are applied over the cable core. These products meet the latest requirements of ANSI/ICEA S-97-682 and AEIC CS8 as applicable for Tree-Retardant Cross-linked Polyethylene (TRXLPE) insulated shielded power cable.

Conductor:
Solid or Class B compressed concentric lay stranded 1350 aluminum.

Conductor Shield:
Extruded lead-free semi-conducting thermosetting polymeric stress control layer.

Insulation:
Extruded unfilled lead-free Tree-Retardant Cross-linked Polyethylene (TRXLPE).

Insulation Shield:
Extruded lead-free semi-conducting thermosetting layer, clean and free stripping from insulation.

Longitudinally Applied Corrugated Tape:
Copper, 8 or 10 mil thick Longitudinally Applied Corrugated Tape (LACT) with a minimum 375 mil overlap.

Jacket:
Black, non-conducting, sunlight-resistant Linear Low-Density Polyethylene (LLDPE).

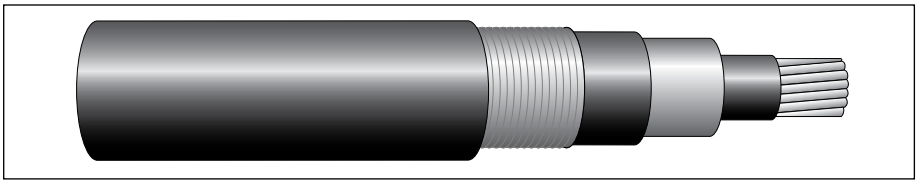
Features and Benefits:

- Lead-free environmentally friendly cable
- Even distribution of fault current and better heat dissipation
- Allows expansion/contraction of the cable core
- Improved bending characteristics versus helical copper tape shield
- Triple-extruded for clean interfaces
- Class 10,000 environment utilized for cable core material handling
- Excellent moisture resistance
- High dielectric strength
- Low dielectric loss
- Excellent resistance to water treeing
- Clean-stripping insulation shield
- Sunlight-resistant

Temperature Rating:

- Normal .....90°C
- Emergency*.....130°C
- Short Circuit.....250°C

** Operation at the emergency overload temperature shall not exceed 1500 hours cumulative during the lifetime of the cable.*



LONGITUDINALLY APPLIED CORRUGATED TAPE SHIELDED POWER CABLE

COMPRESSED CONDUCTOR		DIAMETER (1) INCHES					NOMINAL JACKET THKN. INCHES (1)	APPROX. WEIGHT (1) LB/1000 FT			AMPACITY (2)	
AL AWG OR kcmil	NO. OF WIRES	INSULATION		LACT SHIELD		LLDPE JACKET		AL COND.	CU SHIELD	TOTAL	DIRECT BURIED	IN DUCT
		MIN.	MAX.	THKN.	O.D.							
175 mils NOMINAL TRXPE INSULATION – 15 kV 100% INSULATION LEVEL												
1/0	19	0.715	0.800	0.008	0.912	1.072	0.080	99	116	549	235	170
1/0	19	0.715	0.800	0.010	0.918	1.078	0.080	99	145	582	235	170
2/0	19	0.760	0.845	0.008	0.956	1.116	0.080	125	120	601	270	200
2/0	19	0.760	0.845	0.010	0.962	1.122	0.080	125	150	635	270	200
3/0	19	0.810	0.895	0.008	1.006	1.166	0.080	158	125	663	305	225
3/0	19	0.810	0.895	0.010	1.012	1.172	0.080	158	156	698	305	225
4/0	19	0.865	0.950	0.008	1.062	1.222	0.080	199	134	740	350	260
4/0	19	0.865	0.950	0.010	1.068	1.228	0.080	199	168	778	350	260
250	37	0.920	1.005	0.008	1.104	1.264	0.080	234	131	814	370	285
250	37	0.920	1.005	0.010	1.110	1.270	0.080	234	164	848	370	285
350	37	1.015	1.100	0.008	1.207	1.367	0.080	329	157	984	445	345
350	37	1.015	1.100	0.010	1.213	1.373	0.080	329	191	1020	445	345
500	37	1.150	1.235	0.008	1.335	1.495	0.080	468	157	1190	545	425
500	37	1.150	1.235	0.010	1.355	1.515	0.080	468	220	1263	545	425
750	61	1.340	1.425	0.008	1.536	1.696	0.080	703	199	1574	665	530
750	61	1.340	1.425	0.010	1.542	1.702	0.080	703	243	1620	665	530
1000	61	1.485	1.575	0.008	1.685	1.905	0.110	937	208	1996	780	630
1000	61	1.485	1.575	0.010	1.691	1.911	0.110	937	260	2050	780	630
220 mils NOMINAL TRXPE INSULATION – 15 kV 133% INSULATION LEVEL												
1/0	19	0.805	0.895	0.008	1.002	1.162	0.080	99	125	622	235	170
1/0	19	0.805	0.895	0.010	1.008	1.168	0.080	99	156	658	235	170
2/0	19	0.850	0.935	0.008	1.046	1.206	0.080	125	129	677	270	200
2/0	19	0.850	0.935	0.010	1.052	1.212	0.080	125	162	713	270	200
3/0	19	0.900	0.985	0.008	1.096	1.256	0.080	158	139	746	305	225
3/0	19	0.900	0.985	0.010	1.102	1.262	0.080	158	173	785	305	225
4/0	19	0.955	1.045	0.008	1.152	1.312	0.080	199	143	822	350	260
4/0	19	0.955	1.045	0.010	1.158	1.318	0.080	199	179	863	350	260
250	37	1.010	1.100	0.008	1.194	1.354	0.080	234	140	899	370	285
250	37	1.010	1.100	0.010	1.200	1.360	0.080	234	191	950	370	285
350	37	1.105	1.190	0.008	1.297	1.457	0.080	329	157	1068	445	345
350	37	1.105	1.190	0.010	1.303	1.463	0.080	329	191	1103	445	345
500	37	1.240	1.330	0.008	1.439	1.599	0.080	468	185	1317	545	425
500	37	1.240	1.330	0.010	1.445	1.605	0.080	468	231	1365	545	425
750	61	1.430	1.520	0.008	1.626	1.846	0.110	703	203	1778	665	530
750	61	1.430	1.520	0.010	1.632	1.852	0.110	703	254	1830	665	530
1000	61	1.575	1.670	0.008	1.775	1.995	0.110	937	222	2124	780	630
1000	61	1.575	1.670	0.010	1.781	2.001	0.110	937	277	2181	780	630

(1) Extruded layer thicknesses and insulation and insulation shield diameters are in accordance with ANSI/ICEA S-97-682 for Utility Shielded Power Cables Rated 5 through 46 kV and also meet the requirements of the latest revisions of AEIC CS8.

(2) Ampacity based on earth thermal resistivity of 90˚C-cm/watt, 90˚C conductor temp., 20˚C earth ambient temperature, 75% load factor and 36" depth of burial. Values are based on one three-phase circuit, one conductor per phase, in flat adjacent configuration (direct buried) with metallic shield bonded at each end. For specific ampacities, contact your General Cable sales representative.

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

General Cable

EmPowr® Link Shielded Power Cable 15-35 kV

Al Conductor TRXLPE Insulation Longitudinally Applied Corrugated Tape LLDPE Jacket

LONGITUDINALLY APPLIED CORRUGATED TAPE SHIELDED POWER CABLE												
COMPRESSED CONDUCTOR		DIAMETER (1) INCHES					NOMINAL JACKET THKN. INCHES (1)	APPROX. WEIGHT (1) LB/1000 FT			AMPACITY (2)	
AL AWG OR kcmil	NO. OF WIRES	INSULATION		LACT SHIELD		LLDPE JACKET		AL COND.	CU SHIELD	TOTAL	DIRECT BURIED	IN DUCT
		MIN.	MAX.	THKN.	O.D.							
260 mils NOMINAL TRXPE INSULATION – 25 kV 100% INSULATION LEVEL												
1/0	19	0.875	0.965	0.008	1.082	1.242	0.080	99	134	693	235	170
1/0	19	0.875	0.965	0.010	1.088	1.248	0.080	99	168	731	235	170
2/0	19	0.920	1.010	0.008	1.126	1.286	0.080	125	139	749	270	200
2/0	19	0.920	1.010	0.010	1.132	1.292	0.080	125	173	789	270	200
3/0	19	0.970	1.060	0.008	1.176	1.336	0.080	158	143	816	305	225
3/0	19	0.970	1.060	0.010	1.182	1.342	0.080	158	179	857	305	225
4/0	19	1.025	1.115	0.008	1.232	1.392	0.080	199	153	900	350	260
4/0	19	1.025	1.115	0.010	1.238	1.398	0.080	199	191	943	350	260
250	37	1.080	1.175	0.008	1.274	1.434	0.080	234	161	923	370	285
250	37	1.080	1.175	0.010	1.294	1.454	0.080	234	220	988	370	285
350	37	1.185	1.275	0.008	1.391	1.551	0.080	329	185	1105	445	345
350	37	1.185	1.275	0.010	1.397	1.557	0.080	329	231	1152	445	345
500	37	1.310	1.405	0.008	1.519	1.679	0.080	468	199	1331	545	425
500	37	1.310	1.405	0.010	1.525	1.685	0.080	468	249	1382	545	425
750	61	1.500	1.595	0.008	1.706	1.926	0.110	703	222	1769	665	530
750	61	1.500	1.595	0.010	1.712	1.932	0.110	703	277	1826	665	530
1000	61	1.645	1.740	0.008	1.855	2.075	0.110	937	240	2113	780	630
1000	61	1.645	1.740	0.010	1.861	2.081	0.110	937	301	2174	780	630
345 mils NOMINAL TRXPE INSULATION – 35 kV 100% INSULATION LEVEL												
1/0	19	1.045	1.145	0.008	1.252	1.412	0.080	99	157	859	230	180
1/0	19	1.045	1.145	0.010	1.258	1.418	0.080	99	197	904	230	180
2/0	19	1.090	1.190	0.008	1.296	1.456	0.080	125	162	920	260	205
2/0	19	1.090	1.190	0.010	1.302	1.462	0.080	125	202	966	260	205
3/0	19	1.140	1.240	0.008	1.346	1.506	0.080	158	166	993	295	235
3/0	19	1.140	1.240	0.010	1.352	1.512	0.080	158	208	1040	295	235
4/0	19	1.195	1.295	0.008	1.402	1.562	0.080	199	171	1078	340	265
4/0	19	1.195	1.295	0.010	1.408	1.568	0.080	199	214	1127	340	265
250	37	1.250	1.350	0.008	1.458	1.618	0.080	234	199	1125	360	295
250	37	1.250	1.350	0.010	1.464	1.624	0.080	234	243	1170	360	295
350	37	1.355	1.455	0.008	1.561	1.781	0.110	329	208	1365	430	355
350	37	1.355	1.455	0.010	1.567	1.787	0.110	329	260	1418	430	355
500	37	1.480	1.580	0.008	1.689	1.909	0.110	468	222	1609	530	430
500	37	1.480	1.580	0.010	1.695	1.915	0.110	468	277	1665	530	430
750	61	1.670	1.770	0.008	1.876	2.096	0.110	703	245	2002	650	550
750	61	1.670	1.770	0.010	1.882	2.102	0.110	703	306	2064	650	550
1000	61	1.815	1.920	0.008	2.025	2.245	0.110	937	259	2357	765	625
1000	61	1.815	1.920	0.010	2.031	2.251	0.110	937	324	2423	765	625

(1) Extruded layer thicknesses and insulation and insulation shield diameters are in accordance with ANSI/ICEA S-97-682 for Utility Shielded Power Cables Rated 5 through 46 kV and also meet the requirements of the latest revisions of AEIC CS8.

(2) Ampacity based on earth thermal resistivity of 90˚C-cm/watt, 90˚C conductor temp., 20˚C earth ambient temperature, 75% load factor and 36" depth of burial. Values are based on one three-phase circuit, one conductor per phase, in flat adjacent configuration (direct buried) with metallic shield bonded at each end. For specific ampacities, contact your General Cable sales representative.

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Applications:

EmPowr® Link+ cables are intended for use in dry or wet locations for distribution of three-phase medium-voltage power. These cables may be installed in ducts or direct buried.

Options:

- Compact conductors
- Copper conductors
- STRANDFILL® blocked conductor. Tested in accordance with ICEA T-31-610
- BIFILL® tested to ICEA T-34-664
  1. blocked conductor
  2. blocked cable core/LACT
- TRIFILL® tested to ICEA T-34-664
  1. blocked conductor
  2. blocked cable core/LACT
  3. sealed overlap and blocked LACT/jacket
- Sealed LACT overlap
- True Triple Extrusion
- Low-strip insulation shield
- Red stripes on jacket
- Semi-conducting thermoplastic jacket
- CL™ XLPE jacket
- 3 X 1/C triplex or parallel
- TRXLPE Class III insulation for 105°/140°C temperature rating
- Type MV-90 UL 1072
- Type MV-105 UL 1072