

LINK SHIELDED POWER CABLE 5-46KV

COPPER CONDUCTOR TRXLPE INSULATION COPPER TAPE SHIELDED POWER CABLE

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 (4 AWG to 500 kcmil) or compressed (600 kcmil to 1000 kcmil) annealed uncoated copper or compact 1350 aluminum (all sizes).
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 2.7 mil thick copper tape helically applied with a minimum 15% overlap.
Jacket	Black polyethylene jacket.
Features and Benefits	<ul style="list-style-type: none"> • CSA C68.5 or CSA C68.10 listed • 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
Temperature Rating	Normal - 90°C, Emergency* - 130°C, Short Circuit - 250°C
Specifications	General Cable BICC® Brand utility products copper tape shielded power cables meet the latest requirements of CSA C68.5 and CSA C68.10 as applicable for Tree Retardant Cross-linked Polyethylene (TRXLPE) insulated shielded power cable.
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	<ul style="list-style-type: none"> • STRANDFILL® blocked conductor. Tested in accordance with ICEA T-31-610 • UltraPowr® smoother and cleaner semi-conducting conductor shield • Low strip insulation shield • Available with EPR Insulation • Available with 5 mil copper tape thickness • Available with double copper tape construction • Available in metric (mm²) conductor sizes • CDC® Combined Duct & Cable • 3 X 1/C triplex or parallel formation • 3 shielded cores cabled with fillers, with or without ground conductor, and with an overall jacket • Dual-Rated – Type MV-90 UL 1072 • Dual-Rated – Type MV-105 UL 1072 • TRXLPE Class III insulation for 105°C/140°C temperature rating • UL Listed • AEIC CS8 • 100% pellet inspection



COPPER CONDUCTOR COPPER TAPE SHIELDED 5KV POWER CABLE

2.29 MM (90 MILS) NOMINAL TRXLPE INSULATION – 5 KV 100% OR 133%



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	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 15KV POWER CABLE

4.45 MM (175 MILS) NOMINAL TRXLPE INSULATION – 15 KV 100%



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	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

COPPER CONDUCTOR COPPER TAPE SHIELDED 15KV POWER CABLE

5.59 MM (220 MILS) NOMINAL TRXLPE INSULATION – 15 KV 133%



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	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

ALUMINUM CONDUCTOR COPPER TAPE SHIELDED 5KV POWER CABLE

2.29 MM (90 MILS) NOMINAL TRXLPE INSULATION – 5 KV 100% OR 133%



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	7	12.3	13.8	14.0	17.3	1.7	93	31	341	165	125
1	19	13.1	14.6	14.8	18.1	1.7	117	33	379	190	145
1/0	19	14.0	15.5	15.7	19.0	1.7	147	35	428	215	165
2/0	19	15.0	16.6	16.7	20.0	1.7	186	38	488	245	185
3/0	19	16.2	17.8	17.9	21.2	2.0	235	40	561	280	210
4/0	19	17.6	19.1	19.2	23.3	2.0	296	43	683	320	240
250	37	18.9	20.4	20.6	24.6	2.0	349	46	765	350	275
350	37	21.3	22.9	23.0	27.1	2.0	490	52	959	425	330
500	37	24.4	25.9	26.1	30.1	2.0	697	59	1234	520	405
750	61	29.0	30.5	30.6	34.7	2.0	1047	69	1691	655	510
1000	61	32.8	34.3	34.5	38.6	2.0	1394	78	2125	760	610

ALUMINUM CONDUCTOR COPPER TAPE SHIELDED 15KV POWER CABLE

4.45 MM (175 MILS) NOMINAL TRXLPE INSULATION – 15 KV 100%



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	7	16.6	18.1	18.3	21.6	2.0	93	47	485	165	125
1	19	17.4	18.9	19.1	23.2	2.0	117	49	562	190	145
1/0	19	18.3	19.9	20.0	24.1	2.0	147	51	619	215	165
2/0	19	19.4	20.9	21.1	25.1	2.0	186	54	686	245	185
3/0	19	20.5	22.1	22.3	26.3	2.0	235	57	769	280	210
4/0	19	21.9	23.4	23.6	27.6	2.0	296	60	868	320	240
250	37	23.2	24.7	24.9	29.0	2.0	349	63	959	350	275
350	37	25.7	27.2	27.4	31.4	2.0	490	70	1170	425	330
500	37	28.7	30.2	30.4	34.5	2.0	697	77	1464	520	405
750	61	33.3	34.8	35.0	39.0	2.0	1047	89	1951	655	510
1000	61	37.1	38.7	38.8	42.9	2.0	1394	99	2410	760	610

ALUMINUM CONDUCTOR COPPER TAPE SHIELDED 15KV POWER CABLE

5.59 MM (220 MILS) NOMINAL TRXLPE INSULATION – 15 KV 133%



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	7	18.9	20.4	20.6	24.7	2.0	93	52	606	165	125
1	19	19.7	21.2	21.4	25.5	2.0	117	54	653	190	145
1/0	19	20.6	22.1	22.3	26.4	2.0	147	57	713	215	165
2/0	19	21.6	23.2	23.3	27.4	2.0	186	59	784	245	185
3/0	19	22.8	24.4	24.5	28.6	2.0	235	62	871	280	210
4/0	19	24.2	25.7	28.9	29.9	2.0	296	66	974	320	240
250	37	25.5	27.0	27.2	31.3	2.0	349	69	1070	350	275
350	37	27.9	29.5	29.6	33.7	2.0	490	76	1288	425	330
500	37	31.0	32.5	32.7	36.7	2.0	697	83	1592	520	405
750	61	35.6	37.1	37.3	41.3	2.0	1047	95	2094	655	510
1000	61	39.4	40.9	41.1	46.7	2.8	1394	105	2700	760	610

COPPER CONDUCTOR COPPER TAPE SHIELDED 25KV POWER CABLE

6.60 MM (260 MILS) NOMINAL TRXLPE INSULATION – 25 KV 100%



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
1	19	21.7	23.2	23.4	27.5	2.0	385	60	1008	255	225
1/0	19	22.7	24.2	24.4	28.4	2.0	485	62	1141	290	255
2/0	19	23.7	25.2	25.4	29.4	2.0	612	65	1302	330	290
3/0	19	24.9	26.4	26.6	30.6	2.0	771	68	1503	380	325
4/0	19	26.2	27.7	27.9	32.0	2.0	972	71	1750	430	370
250	37	27.5	29.1	29.2	33.3	2.0	1148	74	1974	475	420
350	37	30.0	31.5	31.7	35.7	2.0	1609	81	2519	570	505
500	37	33.0	34.5	34.7	38.8	2.0	2298	89	3314	690	610
750	61	37.6	39.1	39.3	43.4	2.8	3447	100	4629	855	755
1000	61	41.5	43.0	43.2	48.7	2.8	4596	110	6052	985	900

COPPER CONDUCTOR COPPER TAPE SHIELDED 35KV POWER CABLE

8.76 MM (345 MILS) NOMINAL TRXLPE INSULATION – 35 KV 100%



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
1/0	19	27.0	28.5	28.7	32.7	2.0	485	73	1352	290	255
2/0	19	28.0	29.5	29.7	33.8	2.0	612	76	1520	330	290
3/0	19	29.2	30.7	30.9	35.0	2.0	771	79	1729	380	330
4/0	19	30.5	32.0	32.2	36.3	2.0	972	82	1984	430	375
250	37	31.8	33.4	33.6	37.6	2.0	1148	86	2216	475	420
350	37	34.3	35.8	36.0	40.1	2.0	1609	92	2776	570	505
500	37	37.3	38.9	39.0	43.1	2.0	2298	99	3590	690	610
750	61	41.9	43.4	43.6	49.2	2.8	3447	111	5073	855	755
1000	61	45.8	47.3	47.5	53.1	2.8	4596	121	6394	985	890

COPPER CONDUCTOR COPPER TAPE SHIELDED 46KV POWER CABLE

11.3 MM (445 MILS) NOMINAL TRXLPE INSULATION – 46 KV 100%



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
4/0	19	35.6	37.1	37.3	41.4	2.0	972	95	2293	425	370
250	37	36.9	38.5	38.6	42.7	2.8	1148	98	2535	470	415
350	37	39.4	40.9	41.1	46.7	2.8	1609	105	3245	565	500
500	37	42.4	43.9	44.1	49.7	2.8	2298	112	4091	685	605
750	61	47.0	48.5	48.7	54.3	2.8	3447	124	5481	850	750
1000	61	50.9	52.4	52.6	58.1	2.8	4596	134	6829	980	885

ALUMINUM CONDUCTOR COPPER TAPE SHIELDED 25KV POWER CABLE

6.60 MM (260 MILS) NOMINAL TRXLPE INSULATION – 25 KV 100%



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
1	19	21.7	23.2	23.4	27.5	2.0	117	60	740	185	145
1/0	19	22.7	24.2	24.4	28.4	2.0	147	62	803	215	165
2/0	19	23.7	25.2	25.4	29.4	2.0	186	65	877	245	185
3/0	19	24.9	26.4	26.6	30.6	2.0	235	68	966	275	215
4/0	19	26.2	27.7	27.9	32.0	2.0	296	71	1075	315	250
250	37	27.5	29.1	29.2	33.3	2.0	349	74	1174	350	275
350	37	30.0	31.5	31.7	35.7	2.0	490	81	1400	420	335
500	37	33.0	34.5	34.7	38.8	2.0	697	89	1713	515	405
750	61	37.6	39.1	39.3	43.4	2.8	1047	100	2228	650	520
1000	61	41.5	43.0	43.2	48.7	2.8	1394	110	2851	755	605

ALUMINUM CONDUCTOR COPPER TAPE SHIELDED 35KV POWER CABLE

8.76 MM (345 MILS) NOMINAL TRXLPE INSULATION – 35 KV 100%



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
1/0	19	27.0	28.5	28.7	32.7	2.0	147	73	1014	210	170
2/0	19	28.0	29.5	29.7	33.8	2.0	186	76	1095	240	190
3/0	19	29.2	30.7	30.9	35.0	2.0	235	79	1193	275	220
4/0	19	30.5	32.0	32.2	36.3	2.0	296	82	1308	310	250
250	37	31.8	33.4	33.6	37.6	2.0	349	86	1416	345	275
350	37	34.3	25.8	36.0	40.1	2.0	490	92	1657	415	340
500	37	37.3	38.9	39.0	43.1	2.0	697	100	1989	510	410
750	61	41.9	43.4	43.6	49.1	2.8	1047	111	2673	640	525
1000	61	45.8	47.3	47.5	53.1	2.8	1394	121	3192	745	615

ALUMINUM CONDUCTOR COPPER TAPE SHIELDED 46KV POWER CABLE

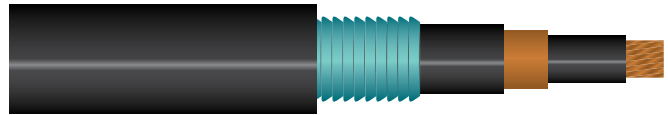
11.3 MM (445 MILS) NOMINAL TRXLPE INSULATION – 46 KV 100%



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
4/0	19	35.6	37.1	37.3	41.4	2.0	296	95	1617	310	250
250	37	36.9	38.5	38.6	42.7	2.8	349	98	1735	345	275
350	37	39.4	40.9	41.1	46.7	2.8	490	105	2126	415	340
500	37	42.4	43.9	44.1	49.7	2.8	697	113	2490	510	410
750	61	47.0	48.5	48.7	54.3	2.8	1047	124	3081	640	525
1000	61	50.9	52.4	52.6	58.1	2.8	1394	134	3628	745	615

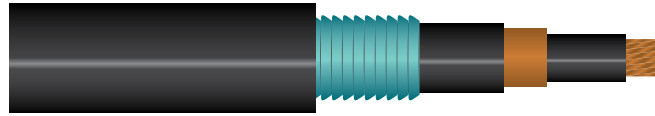
COPPER CONDUCTOR LONGITUDINALLY APPLIED CORRUGATED TAPE SHIELDED 15KV POWER CABLE

Complete Cable	Cross-linked semi-conducting conductor shield, insulation and semi-conducting insulation shield are extruded over an aluminum or copper conductor and cured in a single operation. Corrugated copper tape and an extruded black jacket are applied over the cable core.
Conductor	Class B concentric lay stranded compact (250 kcmil to 500 kcmil) or compressed (600 kcmil to 1000 kcmil) annealed uncoated copper or compact 1350 aluminum (all sizes).
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.
Insulation Shield:	Extruded semi-conducting thermosetting layer, clean- and free-stripping from insulation.
Metallic Shield	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	<ul style="list-style-type: none">• 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 material handling• Excellent moisture resistance• High dielectric strength• Low dielectric loss• Excellent resistance to treeing• Clean-stripping insulation shield
Temperature Rating	Normal - 90°C, Emergency* - 130°C, Short Circuit - 250°C



COPPER CONDUCTOR LONGITUDALLY APPLIED CORRUGATED TAPE SHIELDED 15KV POWER CABLE

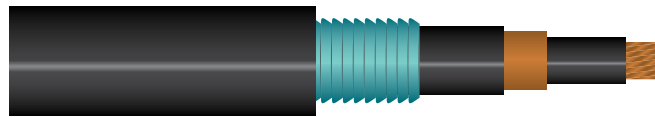
4.45 MM (175 MILS) NOMINAL TRXLPE INSULATION – 15 KV 100% LEVEL



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
250	37	23.2	0.203	27.0	31.1	2.0	1149	196	1889	475	420
250	37	23.2	0.254	27.2	31.2	2.0	1149	245	1939	475	420
350	37	25.7	0.203	29.5	33.5	2.0	1609	208	2424	575	505
350	37	25.7	0.254	29.6	33.7	2.0	1609	284	2500	575	505
500	37	28.7	0.203	32.5	36.6	2.0	2298	233	3215	695	615
500	37	28.7	0.254	32.7	36.7	2.0	2298	284	3268	695	615
750	61	33.3	0.203	37.4	41.5	2.0	3447	275	4541	855	760
750	61	33.3	0.254	37.6	41.7	2.0	3447	344	4611	855	760
1000	61	37.1	0.203	41.3	46.9	2.8	4596	303	5921	980	905
1000	61	37.1	0.254	41.5	47.0	2.8	4596	379	5999	980	905

COPPER CONDUCTOR LONGITUDALLY APPLIED CORRUGATED TAPE SHIELDED 15KV POWER CABLE

5.59 MM (220 MILS) NOMINAL TRXLPE INSULATION – 15 KV 133% LEVEL



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
250	37	25.5	0.203	29.3	33.4	2.0	1149	208	2005	475	420
250	37	25.5	0.254	29.5	33.5	2.0	1149	284	2081	475	420
350	37	27.9	0.203	31.8	35.8	2.0	1609	233	2560	575	505
350	37	27.9	0.254	31.9	36.0	2.0	1609	284	2612	575	505
500	37	31.0	0.203	34.8	38.9	2.0	2298	240	3344	695	615
500	37	31.0	0.254	35.3	39.4	2.0	2298	327	3442	695	615
750	61	35.6	0.203	39.7	45.3	2.8	3447	296	4798	855	760
750	61	35.6	0.254	39.9	45.5	2.8	3447	370	4874	855	760
1000	61	39.4	0.203	43.6	49.2	2.8	4596	317	6090	980	905
1000	61	39.4	0.254	43.7	49.3	2.8	4596	396	6171	980	905