

FR-XLPE/CPE-TS

CONSTRUCTION AT A GLANCE

CONDUCTOR TYPE ①
14 – 10 AWG COPPER

INSULATION TYPE ②
FR-XLPE

SHIELD TYPE
N/A

JACKET TYPE ③
THERMOSET CPE

APPLICATIONS

- Predominantly used in utility substations
- Can be installed indoors or outdoors, in cable trays, conduit, underground duct, or direct buried in wet or dry locations
- Conductor operating temperatures are not to exceed 90°C wet or dry
- Rated 600 Volts

CONSTRUCTION DETAILS

- **Conductors**
 - 14 AWG thru 10 AWG Annealed Class B Copper Unilay Compressed Stranded
- **Insulation**
 - Flame Retardant Cross-Linked Polyethylene (FR-XLPE)
 - Color Coded per preferred method in ICEA S-73-532 standard
- **Assembly**
 - Cabled with non-hygroscopic polyethylene fillers in order to give the cable a circular cross-section, when needed
 - Wrapped with a Mylar binder
- **Overall Jacket**
 - Heat, Moisture, Oil, and Sunlight Resistant Thermoset Chlorinated Polyethylene (CPE)
- **Print**
 - SOUTHWIRE XXAWG XX/C FR-XLPE (XHHW-2) CDRS 90C CPE JKT TYPE TC 600V SUN. RES. DIRECT BURIAL YEAR SEQUENTIAL FOOTAGE MARKS

SPECIFICATIONS

Southwire's Type TC Substation Control Cable meets or exceeds:

- All applicable ASTM Standards
- ANSI/ICEA S-73-532
- UL 44 Type XHHW-2 rated VW-1
- UL 1277
- UL 1581
- IEEE 1202
- ICEA T-29-520
- RoHS Compliant

OPTIONS

Strand:

- Stranding Classes – C, K
- Tin Coated Copper

Color Coding Methods:

- Color Coding per ICEA S-73-532
 - Method 1, Table E1
 - Method 1, Table E2
 - Method 4
- Custom, available upon request

Insulation:

- PE/PVC
- PE
- FR-XLPE
- THHN

Binder Tape:

- Flame Retardant

Shielded Constructions:

- CU LCT
- CU Helical Tape
- AL Helical Tape
- AL Longitudinal
- With drain wire

Jacket:

- PVC
- LSZH-TP
- LSZH-TS
- CPE-TP
- CPE-TS

Other:

- Rip cord
- 1000 Volt rated
- Custom print
- TC-ER

Additional constructions available upon request



Number of Conductors	Conductor Size (AWG)	Nominal Jacket Thickness (inches)	Nominal Overall Diameter		Approximate Weight	
			(inches)	(mm)	(lbs/1000 ft)	(kg/km)
Unshielded AWG 14 (7 strands)						
2	14	0.045	0.349	8.9	65	97
3	14	0.045	0.370	9.4	90	134
4	14	0.045	0.403	10.2	110	163
5	14	0.045	0.440	11.2	129	192
6	14	0.045	0.479	12.2	151	224
7	14	0.045	0.479	12.2	169	252
8	14	0.060	0.549	13.9	208	309
9	14	0.060	0.588	14.9	230	343
10	14	0.060	0.638	16.2	255	380
12	14	0.060	0.659	16.7	295	438
Unshielded AWG 12 (7 strands)						
2	12	0.045	0.384	9.8	88	131
3	12	0.045	0.408	10.4	119	177
4	12	0.045	0.445	11.3	152	226
5	12	0.045	0.487	12.4	177	263
6	12	0.060	0.562	14.3	224	334
7	12	0.060	0.562	14.3	252	375
8	12	0.060	0.607	15.4	284	423
9	12	0.060	0.651	16.5	317	472
10	12	0.060	0.709	18.0	351	523
12	12	0.060	0.732	18.6	409	609
Unshielded AWG 10 (7 strands)						
2	10	0.045	0.431	11.0	120	178
3	10	0.045	0.459	11.7	166	248
4	10	0.045	0.502	12.8	212	315
5	10	0.060	0.581	14.8	269	400
6	10	0.060	0.632	16.1	316	471
7	10	0.060	0.632	16.1	358	532
8	10	0.060	0.685	17.4	405	603
9	10	0.060	0.736	18.7	452	672
10	10	0.060	0.803	20.4	501	746
12	10	0.080	0.870	22.1	619	921

Dimensions and weights shown above are nominal and subject to industry tolerances.

