FR-XLPE/CPE-TP Shielded-Helical

CONSTRUCTION AT A GLANCE

CONDUCTOR TYPE (1)
14 – 10 AWG COPPER

INSULATION TYPE (2)
FR-XLPE

SHIELD TYPE (3)
HELICAL COPPER TAPE

JACKET TYPE (4)
THERMOPLASTIC 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)
  - XHHW
  - 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
- **Shield**
  - Helically applied 5 mil annealed copper tape with a minimum overlap of 12.5%
- **Overall Jacket**
  - Heat, Moisture, Oil, and Sunlight Resistant Black Thermoplastic Chlorinated Polyethylene (CPE)
- **Print**
  - SOUTHWIRE XXAWG XX/C FR-XLPE CDRS 90C CPE JKT SHIELDED 600V SUN. RES. DIRECT BURIAL YEAR SEQUENTIAL FOOTAGE MARKS

SPECIFICATIONS
Southwire's Substation Control Cable meets or exceeds:
- All applicable ASTM Standards
- ANSI/ICEA S-73-532
- UL 44 Type XHHW-2 rated VW-1
- UL 1581
- UL 1685
- UL 1277
- 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

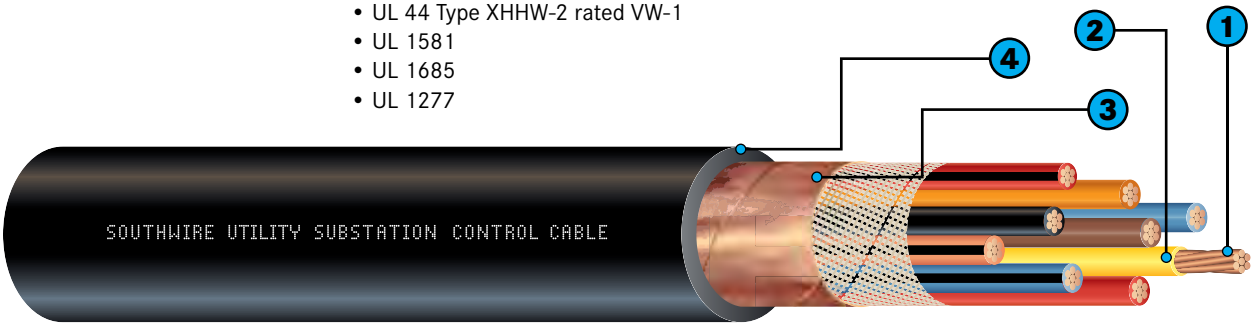
Binder Tape:
- Flame Retardant

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)	Copper Tape Shield Thickness (inches)	Nominal Jacket Thickness (inches)	Nominal Overall Diameter		Approximate Weight	
				(inches)	(mm)	(lbs/1000 ft)	(kg/km)
Shielded AWG 14 (7 strands)							
2	14	0.005	0.045	0.375	9.5	82	121
3	14	0.005	0.045	0.396	10.1	102	152
4	14	0.005	0.045	0.429	10.9	125	186
5	14	0.005	0.045	0.466	11.8	148	220
6	14	0.005	0.045	0.505	12.8	172	255
7	14	0.005	0.045	0.505	12.8	189	281
8	14	0.005	0.060	0.575	14.6	228	339
9	14	0.005	0.060	0.614	15.6	252	375
10	14	0.005	0.060	0.664	16.9	279	415
12	14	0.005	0.060	0.685	17.4	318	473
Shielded AWG 12 (7 strands)							
2	12	0.005	0.045	0.410	10.4	103	154
3	12	0.005	0.045	0.434	11.0	133	198
4	12	0.005	0.045	0.471	12.0	164	244
5	12	0.005	0.045	0.513	13.0	196	292
6	12	0.005	0.060	0.588	14.9	244	363
7	12	0.005	0.060	0.588	14.9	269	401
8	12	0.005	0.060	0.633	16.1	303	451
9	12	0.005	0.060	0.677	17.2	338	502
10	12	0.005	0.060	0.735	18.7	374	556
12	12	0.005	0.060	0.758	19.3	429	638
Shielded AWG 10 (7 strands)							
2	10	0.005	0.045	0.457	11.6	137	203
3	10	0.005	0.045	0.485	12.3	179	267
4	10	0.005	0.060	0.558	14.2	239	356
5	10	0.005	0.060	0.607	15.4	286	426
6	10	0.005	0.060	0.658	16.7	334	497
7	10	0.005	0.060	0.658	16.7	373	554
8	10	0.005	0.060	0.711	18.1	420	625
9	10	0.005	0.060	0.762	19.4	468	697
10	10	0.005	0.080	0.869	22.1	548	815
12	10	0.005	0.080	0.896	22.8	631	940

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