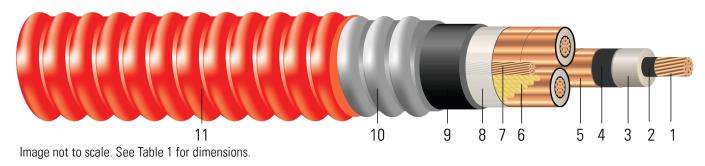


HVTECK CU 3/C 175TRXLPE TS PVC AIA PVC 15kV 100% CSA

3 Conductor, 175 Mils Tree Retardant Cross Linked Polyethylene, 100% Insulation Level, Tape Shield, Polyvinyl Chloride (PVC) Inner Jacket, Aluminum Interlocked Armour (AIA), Polyvinyl Chloride (PVC) Jacket



CONSTRUCTION:

- 1. Conductor: Class B compressed stranded bare copper per ASTM B3 and ASTM B8
- 2. Conductor Shield: Semi-conducting cross-linked copolymer
- 3. Insulation: 175 Mils Tree Retardant Cross Linked Polyethylene 100% insulation level
- 4. Insulation Shield: Strippable semi-conducting cross-linked copolymer
- 5. Copper Tape Shield: Helically wrapped 5 mil copper tape with 25% overlap
- 6. Filler: Interstices filled with non-hydroscoping/non-wicking fillers
- 7. Grounding Conductor: Class B compressed stranded bare copper ground per ASTM B3 and ASTM B8
- 8. **Binder:** Polypropylene tape
- 9. Inner Jacket: PVC inner jacket
- 10. Armour: Aluminum Interlocked Armour (AIA)
- 11. Overall Jacket: Red Polyvinyl Chloride (PVC) Jacket

APPLICATIONS AND FEATURES:

Southwire's 15kV HVTECK is a CSA armoured cable for industrial and commercial medium voltage applications. Rated FT4, -40°C, Hazardous Locations (HL). These cables are capable of operating continuously at the conductor temperature not in excess of 105°C for normal operation, 140°C for emergency overload, and 250°C for short circuit conditions. Rated for 1000 lbs /FT maximum sidewall pressure. These cables feature sunlight and moisture resistance, exceptional corona resistance, resistance to most chemical soils and acids and are flame retardant.

SPECIFICATIONS:

- ASTM B3 Soft or Annealed Copper Wire
- ASTM B8 Concentric-Lay-Stranded Copper Conductors
- CSA C22.2 No. 174 Cables in Hazardous Locations
- CSA C22.2 No. 2556 & No. 0.3 Wire and Cable Test Methods
- CSA C68.10 Shielded Power Cables for Commercial and Industrial Applications 5 to 46 KV
- CSA C68.3 Shielded & Concentric Neutral Power Cable 5 to 46 kV
- CSA LTGG [-40°C] as per C68.10 for Cold Bend and Impact rating
- CSA HL for Hazardous Locations rating
- CSA SUN RES for Sunlight Resistant rating
- ICEA S-93-639 (NEMA WC 74) 5-46 KV Shielded Power Cable
- ICEA T-29-520 Flame Test (210,000 BTU/Hr)



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- IEEE 383 Flame Test (70,000 btu)
- IEEE 1202 FT4 Flame Test (70,000) BTU/hr Vertical Tray Test
- FT1 Flame Test (1,706 BTU/Hr nominal Vertical Wire Flame Test)
- AEIC CS-8 Specification for extruded dielectric shielded power cables rated for 5 through 46KV (Qualification Test Requirements)

SAMPLE PRINT LEGEND:

(CSA) SOUTHWIRE (NESC) #P# 3/C [#AWG or #kcmil] CU 175 TRXLPE AIA 15kV 100% INS LEVEL 25% TS SUN RES 105°C FT4 HL (-40°C) LTGG RoHS YEAR [SEQUENTIAL METER MARKS]

Table 1 – Weights and Measurements

| Cond. Size | Strand | Diameter Over Conductor | Diameter Over Insulation | Insul. Thickness | Diameter Over Insulation Shield | Ground Size | Inner Jacket Thickness | Dia. Over Armour | Overall Jacket Thickness | Approx. OD | Copper Weight | Approx. Weight |
|---------------|--------|-------------------------------|--------------------------------|---------------------|---------------------------------------|----------------|---------------------------|---------------------|--------------------------------|---------------|------------------|-------------------|
| AWG/ Kcmil | No. | inch | inch | mil | inch | AWG | mil | inch | mil | inch | lb/1000ft | lb/1000ft |
| 2/0 | 19 | 0.405 | 0.793 | 175 | 0.853 | 6 | 110 | 2.462 | 75 | 2.612 | 1375 | 3580 |

All dimensions are nominal and subject to normal manufacturing tolerances

◊ Cable marked with this symbol is a standard stock item

1 Comply with ICEA S-93-639 Appendix C for jacket thickness determination

TBA stock codes are estimations only and actual product may vary. Please wait until a stock code is assigned to purchase connectors and/or fittings.

Table 2 – Electrical and Engineering Data

| Cond. Size | Min Bending Radius | Max Pull Tension | DC Resistance @ 25°C | AC Resistance @ 90°C | Capacitive Reactance @ 60Hz | Inductive Reactance @ 60Hz | Zero Sequence Impedance | Positive Sequence Impedance | Phase Short Circuit Current @ 6 Cycles | Allowable Ampacity In Air 90°C | Allowable Ampacity Directly Buried 90°C |
|---------------|--------------------------|---------------------|----------------------------|----------------------------|-----------------------------------|----------------------------------|-------------------------------|-----------------------------------|--|--------------------------------------|--|
| AWG/ Kcmil | inch | lb | Ω/1000ft | Ω/1000ft | MΩ*1000ft | Ω/1000ft | Ω/1000ft | Ω/1000ft | Amp | Amp | Amp |
| 2/0 | 18.3 | 3194 | 0.081 | 0.102 | 0.042 | 0.039 | 0.476 + j0.399 | 0.102 + j0.040 | 2673 | 260 | 292 |

* Inductive impedance is based on non-ferrous conduit with one diameter spacing center-to-center.

* CEC ampacities are based on:

3/C in air copper and aluminum: D17N

3/C direct buried copper and aluminum: D17E

Table 3 – Weights and Measurements (Metric)

| Cond. Size | Strand | Diameter Over Conductor | Diameter Over Insulation | Insul. Thickness | Diameter Over Insulation Shield | Ground Size | Inner Jacket Thickness | Dia. Over Armour | Overall Jacket Thickness | Approx. OD | Copper Weight | Approx. Weight |
|---------------|--------|-------------------------------|--------------------------------|---------------------|---------------------------------------|----------------|---------------------------|---------------------|--------------------------------|---------------|------------------|-------------------|
| AWG/ Kcmil | No. | mm | mm | mm | mm | AWG | mm | mm | mm | mm | kg/km | kg/km |
| 2/0 | 19 | 10.29 | 20.14 | 4.44 | 21.67 | 6 | 2.79 | 62.53 | 1.91 | 66.34 | 2046 | 5328 |

All dimensions are nominal and subject to normal manufacturing tolerances

 $\ensuremath{\diamond}$ Cable marked with this symbol is a standard stock item

1 Comply with ICEA S-93-639 Appendix C for jacket thickness determination

TBA stock codes are estimations only and actual product may vary. Please wait until a stock code is assigned to purchase connectors and/or fittings.

Table 4 – Electrical and Engineering Data (Metric)

| 2/0 | 464.82 | 14213 | 0.2657 | 0.33 | 0.0128 | 0.1280 | 0.476 + j0.399 | 0.102 + j0.040 | 2673 | 260 | 292 | |
|-----|--------|-------|--------|------|--------|--------|-------------------|-------------------|------|-----|-----|--|
|-----|--------|-------|--------|------|--------|--------|-------------------|-------------------|------|-----|-----|--|

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* Inductive impedance is based on non-ferrous conduit with one diameter spacing center-to-center.

* CEC ampacities are based on:

3/C in air copper and aluminum: D17N

3/C direct buried copper and aluminum: D17E