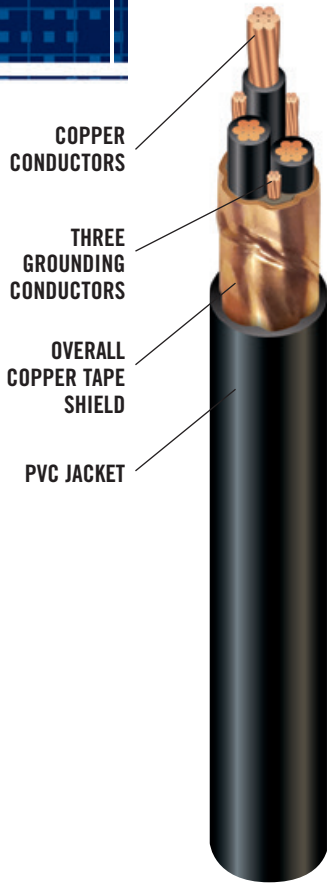


2 kV TYPE TC - VFD TYPE TC-ER POWER CABLE



2000 Volt

Copper Conductors

XLP Insulated Singles
Rated RHH or RHW-2

Overall Copper
Tape Shield

Three Grounding
Conductors

Overall Flame, Moisture
and Sunlight Resistant
PVC Jacket

APPLICATIONS

Southwire's Type TC - VFD 2 kV power cable is used to supply power to motors, or for connection to other power devices in industrial settings. Primary installations include cable trays, raceways, and outdoor locations where supported by a messenger wire. Type TC - VFD is listed for direct burial or in underground ducts and for use in Class 1, Division 2 hazardous locations and Class 1 control circuits. This cable may be used in wet or dry locations at temperatures not to exceed 90°C.

Cable is designed for use with Variable Frequency Drives (VFD) applications and rated up to 2000 volts.

INDUSTRY APPROVALS

- ASTM B3 and B8
- UL 44
- TC-ER per UL 1277 on #4 and larger
- Color Code per ICEA S-58-679 Method 4
- IEEE 1202/FT4 Flame Test
- ICEA S-95-658 (NEMA WC 70) construction requirements
- Meets material content restrictions of the RoHS-2 Directive

CONSTRUCTION

Southwire's Type TC - VFD 2 kV power cable is manufactured using Type RHH or RHW-2 conductors. Individual conductors are bare annealed copper covered with a Crosslinked Polyethylene (XLP) insulation. The conductors are cabled together with fillers and three bare ground wires, shielded with an uncoated 5 mil thick copper tape (50% Overlap) and covered with an overall flame retardant, moisture and sunlight resistant PVC jacket.

• **Conductors:**

Class B stranded, uncoated annealed copper conforming to ASTM B-3 and B-8

• **Insulation:**

Each conductor is insulated with black Crosslinked Polyethylene (XLP) conforming to ICEA S-95-658/NEMA WC-70, Table 3-8 and UL Standard 44 for Type RHH/RHW-2.

• **Color Code:**

Each conductor is black and printed with its conductor number in accordance with ICEA Method 4.





WEIGHTS, MEASUREMENTS AND PACKAGING

| CONDUCTOR SIZE (AWG or kcmil) | NUMBER OF CONDUCTORS | STRANDING | GROUND WIRES (#/AWG) | INSULATION THICKNESS (mils) | JACKET THICKNESS (mils) | NOMINAL OVERALL DIAMETER (inch) | AMPACITY 75°C | AMPACITY 90°C | NET WEIGHT (lbs/1000 ft) |
|-------------------------------|----------------------|-----------|----------------------|-----------------------------|-------------------------|---------------------------------|---------------|---------------|--------------------------|
| 14 | 3 | 7 | 3/18 | 60 | 60 | 0.550 | 20 | 25 | 202 |
| 12 | 3 | 7 | 3/16 | 60 | 60 | 0.588 | 25 | 30 | 239 |
| 10 | 3 | 7 | 3/14 | 60 | 60 | 0.638 | 35 | 40 | 316 |
| 8 | 3 | 7 | 3/14 | 70 | 60 | 0.743 | 50 | 55 | 432 |
| 6 | 3 | 7 | 3/12 | 70 | 80 | 0.859 | 65 | 75 | 605 |
| 4 | 3 | 7 | 3/12 | 70 | 80 | 1.020 | 85 | 95 | 783 |
| 2 | 3 | 7 | 3/10 | 70 | 80 | 1.150 | 115 | 130 | 1156 |
| 1 | 3 | 19 | 3/8 | 90 | 80 | 1.264 | 130 | 145 | 1427 |
| 1/0 | 3 | 19 | 3/6 | 90 | 80 | 1.415 | 150 | 170 | 1815 |
| 2/0 | 3 | 19 | 3/6 | 90 | 80 | 1.510 | 175 | 195 | 2587 |
| 3/0 | 3 | 19 | 3/5 | 90 | 80 | 1.620 | 200 | 225 | 2625 |
| 4/0 | 3 | 19 | 3/4 | 90 | 110 | 1.805 | 230 | 260 | 3241 |
| 250 | 3 | 37 | 3/2 | 105 | 110 | 1.970 | 255 | 290 | 3657 |
| 350 | 3 | 37 | 3/2 | 105 | 110 | 2.195 | 310 | 350 | 4958 |
| 500 | 3 | 37 | 3/1 | 105 | 110 | 2.475 | 380 | 430 | 6689 |
| 500 | 3 | 37 | 3/3/0 | 105 | 110 | 2.630 | 380 | 430 | 7772 |

Note: Allowable ampacities are based on not more than three current carrying conductors in a raceway, cable or direct buried and an ambient temperature of 30°C (2011 NEC® Table 310.15(B)(16))

CONSTRUCTION (continued)

- **Ground Wires:**
Three Class B stranded, uncoated annealed copper conforming to ASTM B-3 and B-8
- **Cable Assembly:**
The three conductors and three ground wires are cabled with non-hygroscopic fillers.
- **Shield:**
A 5 mil uncoated copper tape is helically wrapped over the twisted assembly with a 50% (nominal) overlap. The shield shall be in contact with the ground wire.
- **Outer Jacket:**
A black, flame retardant Polyvinyl Chloride (PVC) jacket meeting the requirements of UL Standard 1277 is applied.