TELCOFLEX® Cellular Power Cable – Low Inductance

TelcoFlex® 600 Volt Tray Cable Copper Conductors, THHN, THWN conductors rated 75°C Wet and 90°C Dry. Helically Applied Copper Shield and PVC Jacket for Low Inductance Between Conductors. Uninsulated, Flexible Tinned Copper Ground. Overall Sunlight and Oil Resistant PVC Jacket.

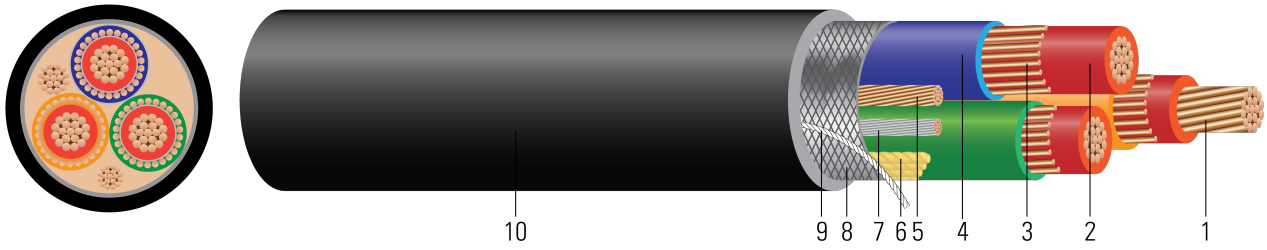

Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** Combination Unilay Bare Copper per ASTM B3, B787
2. **Insulation:** Red Polyvinyl Chloride (PVC) Insulated Conductors with Nylon Sheath
3. **Conductor Shield:** Helically Wrapped Soft Drawn Bare Copper
4. **Conductor Jacket:** Colored PVC - Orange, Green, Blue
5. **Ground:** Soft Drawn Bare Copper
6. **Filler:** Polypropylene as needed to make round
7. **Drain Wire:** Tinned #12 AWG
8. **Core Shield:** 1.7 mils aluminum tape plus a tinned braid.
9. **Rip Cord:** For ease of jacket removal
10. **Overall Jacket:** Black sunlight resistant (PVC) Jacket

APPLICATIONS AND FEATURES:

Southwire's TelcoFlex® 600 Volt tray cables are suited for use in wet and dry areas, conduits, ducts, troughs, trays, direct burial, aerial supported by a messenger, and where superior electrical properties are desired. These cables are capable of operating continuously at the conductor temperature not in excess of 75°C in wet locations and 90°C in dry locations, 130°C for emergency overload, and 150°C for short circuit conditions. Assembeled with fillers as needed to make round.

SPECIFICATIONS:

- ASTM B3 Soft or Annealed Copper Wire
- ASTM B787 19 Wire Combination Unilay-Stranded Copper Conductors
- UL 83 Thermoplastic Insulated Wires and Cables
- UL 1277 Electrical Power and Control Tray Cables
- UL 2882 Outline of Investigation for Radio Head Cable
- ICEA S-95-658 (NEMA WC70) Power Cables Rated 2000 Volts or Less for the Distribution of Electrical Energy
- IEEE 1202 FT4 Flame Test (70,000) BTU/hr Vertical Tray Test

SAMPLE PRINT LEGEND:

{SQFTG} SOUTHWIRE® E75755 {UL} 3/C 4 AWG (21.2{mm2}) SHIELDED + 1/C 8 AWG (8.37{mm2}) GDING COND THHN/THWN 90°C DRY OR 75°C WET TYPE TC-ER 600V FT4 SUN RES DIR BUR

Table 1 – Physical and Electrical Data

Stock Number	Cond. Size	Cond. Number	Cond. Strands	Diameter Over Cond.	Insul. Thickness	Ground	Jacket Thickness	Approx. OD	Copper Weight	Approx. Weight	DC Resistance @ 25°C	AC Resistance @ 75°C	Inductive Rectance	Min Bending Radius	Allowable Ampacity 75°C	Allowable Ampacity 90°C
	AWG	No.	strands	inch	mil	No. x AWG	mil	inch	lb / 1000ft	lb / 1000ft	Ω /1000ft	Ω /1000ft	Ω/1000ft	inch	Amp	Amp
4 AWG																
673721	4	3	19	0.225	40	1 x 8	80	1.132	915	1233	0.258	0.310	0.048	5.7	85	95

All dimensions are nominal and subject to normal manufacturing tolerances
◊ Cable marked with this symbol is a standard stock item
† Ampacities based upon 2023 NEC Table 310.16 and do not take into account the overcurrent protection limitations in NEC 240.4(D) of 15 Amps for 14 AWG CU, 20 Amps for 12 AWG CU, and 30 Amps for 10 AWG CU (independent of the conductor temperature rating and stranding if size is present in table). Also, see NEC sections 310.15 and 110.14(C) for additional requirements.
† Ampacities have been adjusted for more than Three Current-Carrying Conductors.
* Inductive impedance is based on non-ferrous conduit with one diameter spacing.
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.