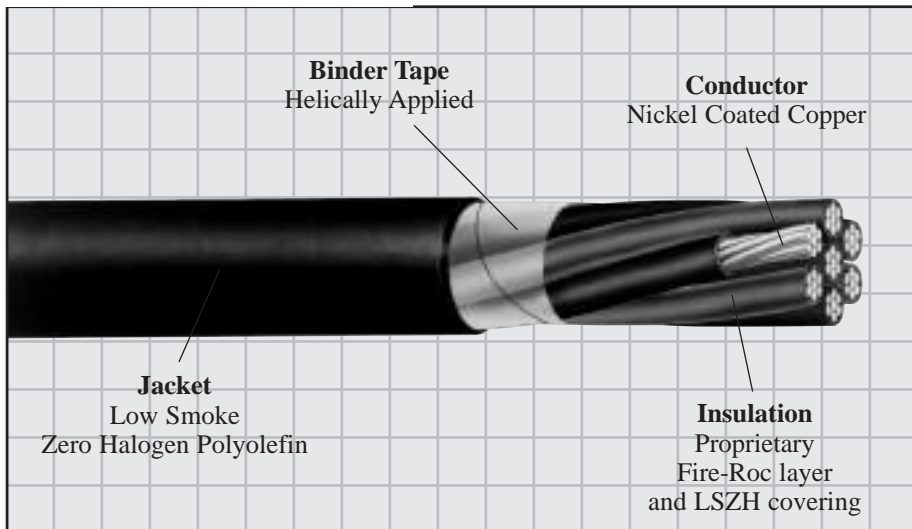


# VITALink® TC/NCC

## Fire Resistant Power Cable



### VITALink® TC/NCC Fire Resistant Power Cable

90°C / 75°C\*, 600 Volt  
 NEC Type TC-ER  
 CEC Type RW75/ R90, CIC & TC

UL Listed  
 CSA Listed  
 CUL Listed

RSS-5-158

### Scope

VITALink® TC/NCC is a unique cable which offers superior fire endurance capabilities along with the well-established benefits and features associated with NEC Type TC cable designs. This cable is suitable for use in circuits where the maintenance of circuit integrity is an

absolute necessity to allow the operation of systems or equipment vital to life or safety under emergency conditions. It has applications in the petroleum industry for MOVs, fire pumps and other critical functions where fire survivability is essential.

### Features

- Fire Rated
- Moisture Resistant
- Installs in steel raceway with steel fittings
- Low Smoke, Halogen free design
- Flexible for installation ease
- Easy stripability
- Available in long lengths
- No special tools, connectors, or procedures
- Easily pulled (low friction jacket)

\* 90°C dry, 75°C wet per NEC

### Performance Standards

- Insulation resistance is in excess of 10,000 ohms in 60 minute 2000°F flame test per Mil-W-25038 (Shake & Bake)
- Additional third party qualification for 30 minutes at 2000°F Rapid Rise Test witnessed by UL
- Passes IEC 331 flame test modified to 3 hours @ 2000°F
- UL Listed, NEC Type TC in accordance with UL Standard No. 1277
- Approved and marked with the "Sunlight Resistant" designation
- Singles wet rated per UL44/CSA 22.2 No. 38 Section 5.4 Long Term Insulation Resistance in Water Test and listed as UL Type RHW/RW75
- Approved and marked with the "FT-4" flame test designation
- CSA Listed R90 in accordance with CSA C22.2 No. 38/UL44
- CUL Listed as CEC Type CIC in accordance with CSA Standard C22.2 No. 239
- CUL Listed as CEC Type TC in accordance with CSA Standard C22.2 No. 230
- ABS Recognized for marine ship-board
- -ER meets the crush and impact requirement of Type MC cable and can be used per NEC 336.10 (7) for extended runs

### Construction

**Conductor:**  
Stranded, nickel coated copper

**Insulation System:**  
Proprietary Low Smoke Zero Halogen thermoset Fire-Roc® layer and thermoset low smoke zero halogen covering

**Circuit Identification:**  
ICEA Method 3: Black insulation with printed numbers and color names. In addition, legs other than black have colored stripe in the named color. Circuits of four conductor cables are identified black, red, blue, and green.

**Binder Tape:**  
Helically applied

**Jacket:**  
Black Low-Smoke Zero Halogen Polyolefin (other colors available on request)

# VITALink® TC/NCC

## Fire Resistive Power Cable

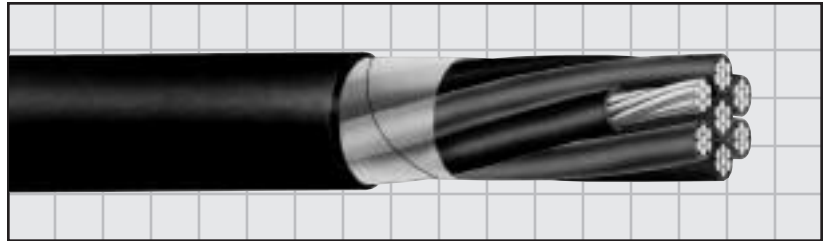
90°C / 75°C\*, 600 Volt

UL Listed. NEC Type TC-ER

CSA Listed. CEC Type RW75/R90

CUL Listed. CEC Type CIC & TC

RSS-5-158



### Three Conductors with one uninsulated nickel-plated ground wire

Product Code	Conductor Size AWG	Jacket Thickness		Nominal Diameter		Net Weight		Minimum Bending Radii*	
		(inch)	(mm)	(inch)	(mm)	(Lbs. per 1000 ft)	(kg/m)	(inch)	(cm)
P49-0083	8	0.080	2.03	0.93	23.6	514	0.765	1.50	3.8
P49-0063	6	0.080	2.03	1.01	25.7	672	1.000	1.75	4.4
P49-0043	4	0.080	2.03	1.14	29.0	894	1.330	2.00	5.1
P49-0023	2	0.080	2.03	1.27	32.4	1,230	1.830	2.25	5.7
P49-0203	2/0	0.110	2.79	1.79	45.5	2,349	3.495	3.00	7.6
P49-0403	4/0	0.110	2.79	2.14	54.3	3,434	5.110	3.75	9.5

### Four Conductors with no ground wires

Product Code	Conductor Size AWG	Jacket Thickness		Nominal Diameter		Net Weight		Minimum Bending Radii*	
		(inch)	(mm)	(inch)	(mm)	(Lbs. per 1000 ft)	(kg/m)	(inch)	(cm)
P49-0084	8	0.080	2.03	1.02	25.9	585	0.870	1.50	3.8
P49-0064	6	0.080	2.03	1.11	28.3	759	1.129	1.75	4.4
P49-0044	4	0.080	2.03	1.26	32.0	1,042	1.550	2.00	5.1
P49-0024	2	0.080	2.03	1.41	35.7	1,430	2.126	2.25	5.7
P49-0204	2/0	0.110	2.79	1.98	50.2	2,836	4.220	3.00	7.6
P49-0404	4/0	0.110	2.79	2.37	60.1	4,145	6.168	3.75	9.5

### Single Conductors

Conductor Size AWG	Conductor Stranding	Insulation Thickness		Cdr. Jkt. Thickness		Nominal Diameter		Ground Wire AWG
		(inch)	(mm)	(inch)	(mm)	(inch)	(mm)	
8	133/.0113"	0.060	1.52	0.030	0.76	0.35	8.9	10
6	133/.0142"	0.060	1.52	0.030	0.76	0.39	9.9	8
4	133/.0179"	0.060	1.52	0.030	0.76	0.45	11.5	8
2	665/.010"	0.060	1.52	0.030	0.76	0.51	13.0	6
2/0	1330/.010"	0.080	2.03	0.045	1.14	0.72	18.4	6
4/0	2107/.010"	0.080	2.03	0.045	1.14	0.88	22.5	4

Note 1: Minimum Bending Radii are instructive for permanent training.

Note 2: Ampacity based on Table 310.16 of the National Electrical Code for 75°C conductor temperature and 30°C ambient, adjusted for NCC conductors and with adjustment factors from Table 310.15(b)(2)(a) for not more than three current carrying conductors.

Rev. 1 (1-22-07)