

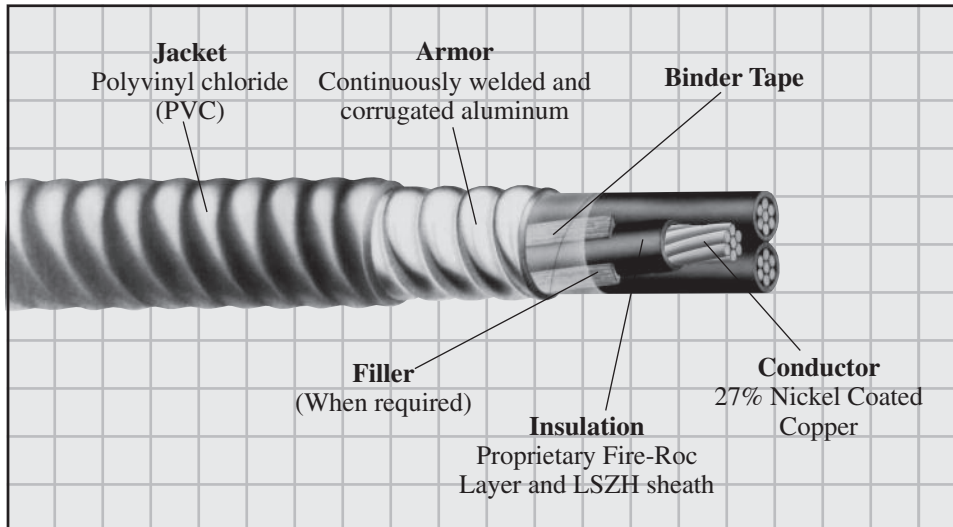


**Innovative  
Engineered Cable  
Solutions**

A Marmon Wire & Cable  
Berkshire Hathaway Company

# VITALink® MC/NCC

## Fire Resistant Control/Power Cable



### VITALink® MC/NCC Fire Resistant Control/Power Cable

90°C/75°C\*, 600 Volt  
NEC Type MC-HL  
UL Listed  
UL Type CWCMC  
cUL Type ACIC

## Scope

VITALink® MC/NCC is a unique cable which offers superior fire endurance capabilities along with the well-established benefits and features associated with NEC Type MC-HL 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 MOV's, fire pumps and other critical functions where fire survivability is essential.

## Features

- Replaces expensive fireproofing methods
- Low smoke, Halogen free design
- Installation ease of Type MC cables
- Utilizes commercially available MC Connectors
- Termination simplicity
- Requires conventional stripping tools
- Extruded "moisture resistant" insulation
- Wide variety of sizes & configurations
- Available in long lengths
- Welded armor forms an impervious barrier
- Armor is impact & crush resistant
- Armor sheath capacity exceeds the UL requirement for equipment ground

## Performance Standards

- Third party qualification for 30 minutes at 2000°F (1093°C) Rapid Rise test witnessed by UL, Modified IEC 60331-11 with side bricks and 15A load.
- Insulation resistance is in excess of 10,000 ohms in 60 minute 2000°F flame test per Mil-W-25038 (Shake & Bake)
- Passes IEC 60331-11 flame test modified to 3 hours @ 2000°F
- UL Listed, NEC Type MC in accordance with UL Standard No. 1569 and MC-HL per UL Standard No. 2225
- UL Rated as -40°C (PVC jacket)
- Approved and marked with the "Sunlight Resistant" designation
- UL Listed for CT (Cable Tray) use
- Approved and marked with "FT-4" flame test designation
- UL Listed as Type CWCMC to IEEE 1580 and UL 1309/CSA C22.2 No. 245 as marine shipboard cable
- ABS Recognized for marine shipboard
- cUL listed as CEC type ACIC IAW CSA 22.2 No. 239

## 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 K-2: Black insulation with printed numbers and colors

### Binder:

Helically applied

### Armor:

Continuously welded and corrugated aluminum

### Outer Jacket (optional):

Flame retardant polyvinyl chloride (PVC) or Low Smoke, Zero Halogen (LSZH) polyolefin

\* 90°C dry, 75°C wet per NEC

# VITALink® MC/NCC

## Fire Resistive Control/Power Cable

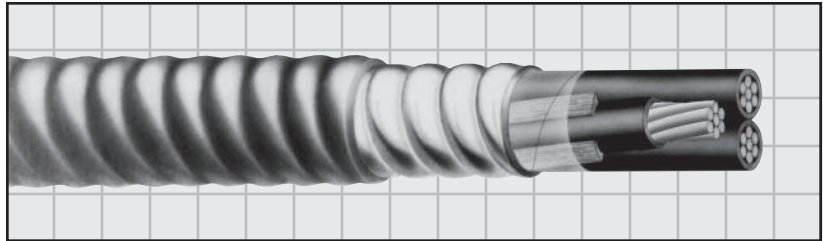
90°C/75°C, 600 Volt

NEC Type MC-HL

UL Listed

UL Type CWC MC

cUL Type ACIC



**Size: 14 AWG** 19/.0142" nickel-coated copper, .045" low-smoke zero-halogen thermoset Fire-Roc® insulation, .015" black low-smoke zero-halogen thermoset conductor jacket (nominal diameter 0.204").

Product Code	Number of Conductors	Core Diameter		Armor Diameter		Nominal Diameter		Net Weight		Minimum Bending Radii <sup>1</sup>		Ampacity <sup>2</sup> (see note)
		(inch)	(mm)	(inch)	(mm)	(inch)	(mm)	(lbs. per 1000 ft.)	(kg/m)	(inch)	(cm)	
S65-0030	3	0.45	11.43	0.78	19.8	0.88	22.4	266	0.396	5.46	13.9	15
S65-0040	4	0.5	12.70	0.84	21.3	0.95	24.1	308	0.458	5.88	14.9	12
S65-0070	7	0.62	15.75	1.02	25.9	1.12	28.4	446	0.664	7.14	18.1	10.5
S65-0120	12	0.85	21.59	1.19	30.2	1.29	32.8	623	0.927	8.33	21.2	7.5

**Size: 12 AWG** 19/.0179" nickel-coated copper, .045" low-smoke zero-halogen thermoset Fire-Roc® insulation, .015" black low-smoke zero-halogen thermoset conductor jacket (nominal diameter 0.222").

Product Code	Number of Conductors	Core Diameter		Armor Diameter		Nominal Diameter		Net Weight		Minimum Bending Radii <sup>1</sup>		Ampacity <sup>2</sup> (see note)
		(inch)	(mm)	(inch)	(mm)	(inch)	(mm)	(lbs. per 1000 ft.)	(kg/m)	(inch)	(cm)	
S65-1020	2	0.45	11.43	0.78	19.8	0.88	22.4	254	0.378	5.46	13.9	18
S65-1030	3	0.48	12.19	0.84	21.3	0.94	23.9	306	0.455	5.88	14.9	18
S65-1040	4	0.54	13.72	0.92	23.4	1.02	25.9	367	0.546	6.44	16.4	14.5
S65-1070	7	0.67	17.02	1.07	27.2	1.17	29.7	513	0.763	7.49	19.0	12.5

**Size: 10 AWG** 49/.0142" nickel-coated copper, .045" low-smoke zero-halogen thermoset Fire-Roc® insulation, .015" black low-smoke zero-halogen thermoset conductor jacket (nom. diameter 0.263").

Product Code	Number of Conductors	Core Diameter		Armor Diameter		Nominal Diameter		Net Weight		Minimum Bending Radii <sup>1</sup>		Ampacity <sup>2</sup> (see note)
		(inch)	(mm)	(inch)	(mm)	(inch)	(mm)	(lbs. per 1000 ft.)	(kg/m)	(inch)	(cm)	
S65-2020	2	0.53	13.46	0.88	22.4	0.98	24.9	311	0.463	6.16	15.6	25
S65-2030	3	0.57	14.48	0.97	24.6	1.07	27.2	393	0.585	6.79	17.2	25
S65-2040	4	0.64	16.26	1.02	25.9	1.12	28.4	460	0.684	7.14	18.1	20
S65-2070	7	0.79	20.07	1.13	28.7	1.23	31.2	650	0.967	7.91	20.1	17.5

<sup>1</sup> Minimum Bending Radii are instructive for permanent training per NEC article 330.

<sup>2</sup> Ampacity based on Table 310.15(B)(16) of the 2011 National Electrical Code for 75°C conductor temperature and 30°C ambient, adjusted for 27% NCC conductors and with adjustment factors from Table 310.15(B)(3)(a) for more than three current carrying conductors