



NFPA 70  
 UL 2196  
 600 Volt, 90°C  
 NEC Type MC  
 UL Listed  
 Systems FHIT 120, 120A, and 60

### Applications

- Lighting, ventilation, elevators, fire pumps
- NFPA 70/NEC – Articles 695, 700, 728, 760
- NFPA 72, 101

### Features

- Up to 2-hour fire resistance
- Splice available
- Superior resistance to flame propagation
- Only conventional tools required to terminate
- Commercially available brass/stainless steel connectors
- Printed number coding allows for easy identification (ICEA Method 4)
- Labor savings on termination, installation, and handling
- Made in USA
- Superior impact & crush resistance
- Low smoke, low toxicity, halogen free design
- Welded armor forms an impervious barrier
- Flexible
- Long continuous lengths available
- Multiple sizes and conductor counts available
- VFD cable design available
- Copper sheath exceeds the NEC requirement for equipment grounding conductor Table 250.122

### Performance Standards

- UL 2196 – Listed as up to 2-hour fire rated Electrical Circuit Integrity Systems FHIT 120, 120A, and 60 of the UL Fire Resistance Directory
- IEEE 1202/FT4 vertical flame test; ST1 limited smoke
- UL 1569 – Listed as Type MC per NFPA 70 Article 330
- Copper conductors to ASTM B8

### Overview

VITALink® MC is a 600V 2-hour fire rated cable listed to UL2196. When installed per systems FHIT 120, 120A, and 60, plus the NEC, VITALink® MC meets the code requirements for 2-hour Fire Rated Circuits, Electrical Circuit Integrity Systems, Survivability, and Circuit Integrity. VITALink® MC Cables offer lowered cost, reliability and ease of installation advantages over MI cable and other methods of providing fire rated circuits.

The equipment grounding copper armor is terminated with commercially available brass MC connectors and the cable connections are made without the need for splicing or use of special tools. Compared to Mineral Insulated (MI) cable, VITALink® MC is not exposed to costly field expenses in preparing cable ends, special panel penetrations, additional flexible terminations and the splicing of shorter lengths in longer runs. VITALink® MC is not susceptible to failures caused by moisture ingress through leaky seals or faulty storage.

VITALink® MC Single Conductor 2-Hour Fire Rated Power Cable

Product Code	Size (AWG kcmil)	# of Conductor	Nom. Core Diameter (In)	Nom. Armor Diameter (In)	Approximate Net Weight (Lbs/1000 ft)	Ampacity 75°C Conductor <sup>1</sup>	Ampacity 90°C Conductor <sup>1</sup>
VM011X0-100	1/0	1	0.66	1.00	815	206	235
VM012X0-100	2/0	1	0.70	1.04	925	239	271
VM013X0-100	3/0	1	0.75	1.08	1,055	276	315
VM014X0-100	4/0	1	0.81	1.16	1,235	324	368
VM01250-100	250	1	0.89	1.22	1,410	361	411
VM01350-100	350	1	0.99	1.35	1,795	448	510
VM01500-100	500	1	1.13	1.50	2,350	560	638
VM01750-100	750	1	1.34	1.73	3,285	720	821

<sup>1</sup>Ampacities based on NEC (NFPA 70-2017) Article 330.80(B) and Table 310.15(B)(20) adjusted to 30°C ambient. Termination device temperature rating shall match conductor temperature rating for ampacity.

VITALink® MC Multi Conductor 2-Hour Fire Rated Power Cable

Product Code	Size (AWG kcmil)	# of Conductor	Nom. Core Diameter (In)	Nom. Armor Diameter (In)	Approximate Net Weight (Lbs/1000 ft)	Ampacity 75°C Conductor <sup>2</sup>	Ampacity 90°C Conductor <sup>2</sup>
VM02014-100	14	2	0.49	0.82	395	20 <sup>3</sup>	25 <sup>3</sup>
VM02012-100	12	2	0.53	0.82	415	25 <sup>3</sup>	30 <sup>3</sup>
VM02010-100	10	2	0.58	0.89	475	35 <sup>3</sup>	40 <sup>3</sup>
VM03014-100	14	3	0.52	0.82	425	20 <sup>3</sup>	25 <sup>3</sup>
VM03012-100	12	3	0.56	0.89	475	25 <sup>3</sup>	30 <sup>3</sup>
VM03010-100	10	3	0.61	0.94	542	35 <sup>3</sup>	40 <sup>3</sup>
VM03008-100	8	3	0.72	1.04	675	50	55
VM03006-100	6	3	0.80	1.16	840	65	75
VM03004-100	4	3	0.91	1.24	1,140	85	95
VM03003-100	3	3	0.97	1.30	1,210	100	115
VM03002-100	2	3	1.04	1.41	1,400	115	130
VM03001-100	1	3	1.21	1.59	1,715	130	145
VM031X0-100	1/0	3	1.29	1.67	1,990	150	170
VM032X0-100	2/0	3	1.39	1.80	2,345	175	195
VM033X0-100	3/0	3	1.49	1.92	2,755	200	225
VM034X0-100	4/0	3	1.62	2.04	3,305	230	260
VM03250-100	250	3	1.80	2.26	3,870	255	290
VM03350-100	350	3	2.02	2.48	5,015	310	350
VM03500-100	500	3	2.30	2.82	6,720	380	430
VM04014-100	14	4	0.57	0.89	480	20 <sup>3</sup>	25 <sup>3</sup>
VM04012-100	12	4	0.62	0.94	575	25 <sup>3</sup>	30 <sup>3</sup>
VM04010-100	10	4	0.67	1.00	635	35 <sup>3</sup>	40 <sup>3</sup>
VM04008-100	8	4	0.80	1.16	815	50	55
VM04006-100	6	4	0.89	1.22	990	65	75
VM04004-100	4	4	1.00	1.35	1,285	85	95
VM04003-100	3	4	1.07	1.41	1,475	100	115
VM04002-100	2	4	1.15	1.50	1,710	115	130
VM04001-100	1	4	1.34	1.73	2,125	130	145
VM041X0-100	1/0	4	1.43	1.82	2,485	150	170
VM042X0-100	2/0	4	1.54	1.95	2,935	175	195
VM043X0-100	3/0	4	1.68	2.12	3,530	200	225
VM044X0-100	4/0	4	1.82	2.26	4,205	230	260
VM04250-100	250	4	2.00	2.46	4,925	255	290
VM04350-100	350	4	2.25	2.71	6,420	310	350
VM04500-100	500	4	2.60	3.13	8,740	380	430
VM05014-100	14	5	0.63	0.94	535	20	25
VM05012-100	12	5	0.68	1.00	615	25	30
VM05010-100	10	5	0.74	1.08	720	35	40
VM05008-100	8	5	0.88	1.22	930	50	55
VM05006-100	6	5	0.99	1.30	1,160	65	75
VM05004-100	4	5	1.11	1.48	1,525	85	95

<sup>2</sup>Ampacities based on NEC (NFPA 70-2017) Table 310.15(B)(16) for 3 current carrying conductors at 30°C ambient temperature. Termination device temperature rating shall match conductor temperature rating for ampacity.

<sup>3</sup>Small conductor limitations per NEC (NFPA 70-2017) Article 240.4(D): 14 AWG = 15 amps, 12 AWG = 20 amps, 10 AWG = 30 amps.



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