



# Atkore's AFC Cable Systems: Celebrating 90 Years as a Cable Industry Leader



AFC Cable Systems, Inc. A part of Atkore International is a leading manufacturer of electrical distribution products. Tracing its origins to 1926, AFC is an integral part of Atkore's Electrical Raceway solution offering, and supplies a broad range of innovative and cost effective products to electrical contractors.



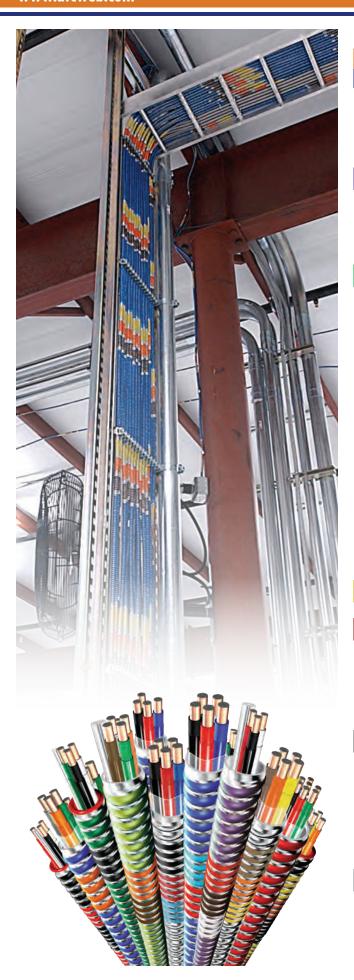
This NEW AFC Cable catalog now features AFC's MC Luminary<sup>®</sup> Cable family of products including the new MC Luminary HCF<sup>™</sup> Cable for patient care area applications and MC Luminary Multizone<sup>™</sup> Cable for multiple zone lighting configurations and daylight harvesting, as well as the original MC Luminary Cable<sup>®</sup> first introduced in 2014.



Also, now available in this catalog is the Armored Thermostat Cable product as well as MC Snaplt™ and Pack N' Roll™ cable accessories.



For more information and to learn more about AFC Cable Systems' innovative products, go to afcweb.com.



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# **Type MC Cables**

# Type MC Metal Clad Cables – Uses Permitted:

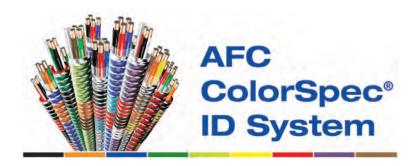
The uses permitted for MC cable are governed by NEC® Article 330 and any applicable local codes. Please refer to NEC® Article 330 and your local authority having jurisdiction for additional information.

- For services, feeders and branch circuits
- For power, lighting, control and signal circuits
- Indoors, exposed or concealed
- Outdoors or in wet locations where the armor has an overall outer moisture resistant PVC jacket and the conductors are wet rated (Parking Deck/Lot Cable)
- Direct buried or in concrete encasement where identified for such use (Parking Deck/Lot Cable)
- Under raised floors, above suspended ceilings and in other environmental air-handling spaces per NEC® 300.22(C)
- In Places of Assembly
- In cable tray
- In locations classified as hazardous as permitted in NEC® Articles 501, 502, 503, 504, 505, and 530
- As aerial cable on a messenger
- In patient care areas in accordance with 517.13 and 517.30(C)(3)(3)

# Type MC Cables – Uses Not Permitted:

- Where subject to physical damage
- Where exposed to destructive corrosive conditions unless the metallic sheath is suitable for the conditions or is protected by material suitable for the conditions

For more information about the proper use and application of AC & MC cables, visit AFC University at www.afcweb.com/afcu.



UL standard 1569 governs the manufacturing of Type MC cables. The standard was updated to include Type MC cables with a ground fault path consisting of an armor and full-sized bare aluminum ground wire, known as MCI-A cables (metal-clad interlocked ground cable). These cables are required to be terminated using connectors UL listed and marked for MCI-A cables per (UL 514-B).

In 2014, AFC Cable was the first to commercialize Metal Clad (MC) Cable with both power and control circuits under one armor, it became MC Luminary Cable™. UL created a new classification of MC Cables called MC-PCS (metal clad, power, control and signal). This new type of cable allows conductors of circuits to be placed in a cable with conductors (electric, lite power, or Class 1 circuits per NEC® Section 725.136(I)(1).

AFC has expanded this family of products to include both an HCF version (MC Luminary HCF $^{\text{TM}}$ ) for applications that include areas of patient care, as well as another industry first, a complete line of multizone lighting cable configurations (MC Luminary MultiZone $^{\text{TM}}$ ).

AFC's MC-Quik® and MC-Stat® cables are Type MC designed as MCI-A cables. The grounding means of these Type MC cables is the armor plus the full-sized bare aluminum ground wire. MC-Stat also contains a full sized green insulated copper grounding conductor as required by NEC® 517 for areas of patient care. MC-Quik and MC-Stat contain insulated copper circuit conductors with thermoplastic insulation and individual protective coverings versus an overall polypropylene tape. It is available in either galvanized steel or aluminum interlocked armor.

Type MC cables of traditional design will include one or more copper grounding conductors. The armor of these Type MC cables is not an approved equipment grounding means. Traditional Type MC cables consist of copper circuit and grounding conductors with thermoplastic insulation, an overall polypropylene assembly tape and an outer galvanized steel or aluminum interlocked metal armor.

Type MC cables should be cut with an armored cable rotary cutting tool which helps eliminate nicking and cutting of the conductors and removes the metal armor quickly and safely.

AFC's Type MC cables, including the new MCI-A styles and traditional MC styles, display the ColorSpec ID System for fast cable and system voltage identification.



# **MC Luminary® Cable**

Type MC-PCS Metal Clad Cable (Patent Pending)

New Type MC Cable combining power and control cables under one armor.

#### **Features & Benefits**

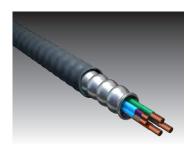
- Save up to 30% labor and installation costs compared to traditional installation methods
- Interlocked galvanized steel strip or Interlocked aluminum strip
- Control cables: 16 AWG solid TFN twisted jacketed pair (purple/gray)
- Maximum voltage rating: 600V
- Made in USA of US and/or imported materials

### **Applications**

- Permits conductors of circuits to be placed in a cable with conductors of electric light, power, or Class 1 circuits
- Use in LED and Fluorescent dimming systems

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# **MC Luminary® Jacketed Cable**

Type MC-PCS Metal Clad Cable with PVC Jacket (Patent Pending)

New Type MC Cable combining power and control cables under one armor.

#### **Features & Benefits**

- Save up to 30% labor and installation costs compared to traditional installation methods
- Interlocked galvanized steel strip
- Control cables: 16 AWG solid TFN twisted jacketed pair (purple/gray)
- Maximum voltage rating: 600V
- Made in USA of US and/or imported materials

### **Applications**

- Permits conductors of circuits to be placed in a cable with conductors of electric light, power, or Class 1 circuits
- Use in LED and Fluorescent dimming systems
- UL® Listed for direct burial in earth or concrete encasement
- Listed for -40°C low temperature use

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# MC LUMINARY MC Luminary® Cable Multi ✓ Lite

Type MC-PCS (Patent Pending)

### **Features & Benefits**

- Interlocked aluminum strip
- Efficient 1 multi-zone cable can replace up to 3 traditional luminary cables or 3 power and 3 control cables
- Productive 1 cable with all the power and control conductors under one armor
- Secure Hard wired lighting control system reduces the threat of intrusion
- Save energy reduce consumption with dimmable lighting
- Save money daylight harvesting dims lighting proportional to natural light
- · California Title 24 friendly with control for up to 3 dimming zones
- Compatible with 0-10 volt DC solid state lighting control systems
- Digital signal compatible

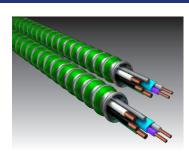
### **Applications**

- California Title 24 friendly with control for up to 3 dimming zones
- Daylight harvesting
- Permits conductors of circuits to be placed in a cable with conductors of electric light, power, or Class 1 circuits

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# MC Luminary HCF™ Lite Cable

Type MC-PCS for Healthcare Applications (Patent Pending)

### **Features & Benefits**

- Interlocked aluminum strip
- Approved for use in patient care areas per NEC® 517.13
- May be surface mounted, fished and/or embedded in plaster
- Save up to 30% labor and installation costs compared to traditional wiring methods
- Parallel bonding/grounding conductor for faster termination

### **Applications**

- Branch circuits in areas of patient care in hospitals, nursing homes, outpatient facilities, dental offices, clinics and medical centers (other than emergency, life safety or critical care locations)
- Permits conductors of circuits to be placed in a cable with conductors of electric light, power, or Class 1 circuits

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**ID System** 

## MC-Quik® Steel Cable

MCI-A Steel Armor - Metal Clad Cable\*

Type MC cable without an overall assembly tape featuring ColorSpec®

### **Features & Benefits**

- Interlocked galvanized steel strip
- Purple armor for easy cable identification
- Armor plus full-sized aluminum ground wire is the equipment grounding means
- Protective covering over each insulated copper conductor
- MCI-A listed connectors required
- UL Classified through-penetrating product for use in through-penetrating fire stop systems
- Made in USA of US and/or imported materials

### **Applications**

- Commercial, industrial, multi-residential branch circuits for power, lighting, control and signal circuit
- Exposed or concealed, dry locations, fished, surface mounted, embedded in plaster, environmental air handling spaces, in hazardous locations to Class I & II, Div 2 and Class III, Div. 1 & 2 (per NEC® Articles 501, 502, 503, 530), Places of Assembly per NEC® Article 518

### **Product Specifications**

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MC-Quik® Steel Metal Clad Cable (120/208V Colors) & (277/480V Colors)

\*U.S. Patent No. 8,088,997 B2, No. 8,278,554 B2



# MC-Quik® Lite Aluminum Cable

MCI-A Aluminum Armor - Metal Clad Cable\*

Type MC cable without an overall assembly tape

### **Features & Benefits**

- Interlocked aluminum strip
- Armor plus full-sized aluminum ground wire is the equipment grounding means
- Protective covering over each insulated copper conductor
- MCI-A listed connectors required
- UL Classified through-penetrating product for use in through-penetrating fire stop systems
- Made in USA of US and/or imported materials

### **Applications**

- Commercial, industrial, multi-residential branch circuits for power, lighting, control and signal circuit
- Exposed or concealed, dry locations, fished, surface mounted, embedded in plaster, environmental air handling spaces, in hazardous locations to Class I & II, Div 2 and Class III, Div. 1 & 2 (per NEC® Articles 501, 502, 503, 530), Places of Assembly per NEC® Article 518

### **Product Specifications**

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MC-Quik® Aluminum Metal Clad Cable (120/208V Colors) & (277/480V Colors)

\*U.S. Patent No. 8,088,997 B2

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## **MC-Stat® Cable**

MCI-A Steel Armor - Metal Clad Cable\*

Type MC cable for Health Care Applications Featuring ColorSpec®

#### **Features & Benefits**

- Interlocked galvanized steel strip
- Green armor for easy cable identification in health care applications
- Armor plus full-sized aluminum ground wire is the equipment grounding mean, second equipment grounding means is full sized insulated copper grounding conductor
- MCI-A listed connectors required
- UL Classified through-penetrating product for use in through-penetrating fire stop systems
- Made in USA of US and/or imported materials

### **Applications**

• Branch circuits in areas of patient care in hospitals, nursing homes, outpatient facilities, dental offices, clinics and medical centers (other than emergency, life safety or critical care locations), Places of Assembly (per NEC® Article 518, and in Patient Care Areas of Patient Care as per NEC® Article 517), under raised floors, above suspended ceilings, environmental air-handling spaces, exposed or concealed dry locations, surface mounted, fished, any application requiring isolated or redundant grounding, normal or general purpose power in health care settings.

### **Product Specifications**

Refer to page:

MC-Stat® Steel Metal Clad Cable (120/208V Colors) & (277/480V Colors)

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\*U.S. Patent No. 8,088,997 B2, No. 8,278,554 B2





### MC-Stat® Lite Cable

MCI-A Aluminum Armor - Metal Clad Cable\*
Type MC cable for Health Care Applications Featuring ColorSpec®

### **Features & Benefits**

- Interlocked aluminum strip
- Green armor for easy cable identification in health care applications
- Armor plus full-sized aluminum ground wire is the equipment grounding mean, second equipment grounding means is full sized insulated copper grounding conductor
- MCI-A listed connectors required
- UL Classified through-penetrating product for use in through-penetrating fire stop systems
- Made in USA of US and/or imported materials

### **Applications**

Branch circuits in areas of patient care in hospitals, nursing homes, outpatient facilities, dental offices, clinics and medical centers (other than emergency, life safety or critical care locations), Places of Assembly (per NEC® Article 518, and in Patient Care Areas of Patient Care as per NEC® Article 517), under raised floors, above suspended ceilings, environmental air-handling spaces, exposed or concealed dry locations, surface mounted, fished, any application requiring isolated or redundant grounding, normal or general purpose power in health care settings.

### **Product Specifications**

Refer to page:

MC-Stat® Lite Aluminum Metal Clad Cable (120/208V Colors) & (277/480V Colors)

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\*U.S. Patent No. 8,088,997 B2, No. 8,278,554 B2

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### MC-Stat® Plus Cable and MC-Stat® Plus Lite Cable

MCI-A Steel or Aluminum Armor - Metal Clad Cable\* For Health Care Applications

### **Features & Benefits**

- A neutral per phase Type MCI-A cable designed for multi-wire branch circuit applications
- Addresses harmonics distortions in power distribution systems and meets the requirements of NEC® 210.4(B)
  disconnecting means
- Eliminates shared neutrals and allows electrical systems to continue to operate
- Decreases the time it takes to identify a faulty circuit because only the affected single phase breaker will trip thus, reducing the length of unnecessary outages
- Type MCI-A cable with a green insulated copper grounding conductor
- Made in USA of US and/or imported materials

### **Applications**

- Branch circuit wiring for a variety of power distribution systems from lighting, to devices and receptacles.
- Branch circuit to computers and other electronic equipment where additive harmonics currents from non-linear switching loads may be present

Product Specifications	Refer to page
MC-Stat® Plus Cable (120/208V Colors)	23
MC-Stat® Plus Lite Cable (120/208V Colors)	23

\*U.S. Patent No. 8,088,997 B2





## MC-Plus®\* and MC-Plus® Lite Cable

Interlocked Galvanized Steel Armor and/or Aluminum Armor Featuring ColorSpec®

### **Features & Benefits**

- A neutral per phase Type MC cable designed for multi-wire branch circuit applications
- Addresses harmonics distortions in power distribution systems and meets the requirements of NEC® 210.4(B) disconnecting means
- Eliminates shared neutrals, and allows electrical systems to continue to operate
- UL Classified through-penetrating product for use in through-penetrating fire stop systems
- Decreases the time it takes to identify a faulty circuit because only the affected single phase breaker will trip thus, reducing the length of unnecessary outages
- Traditional Type MC cable with a green insulated copper grounding conductor
- Aluminum armored cables are RoHS compliant
- Made in USA of US and/or imported materials
- ColorSpec® ID on steel only

### **Applications**

- Branch circuit wiring for a variety of power distribution systems from lighting, to devices and receptacles
- Branch circuit to computers and other electronic equipment where additive harmonics currents from nonlinear switching loads may be present

Product SpecificationsRefer to page:MC-Plus® Cable24MC-Plus® Lite Cable25

\*U.S. Patent No. 8,278,554 B2



# **Super Neutral Cable®**

Interlocked Galvanized Steel Armor or (Optional) Aluminum Armor

#### **Features & Benefits**

- Designed to minimize the effects of harmonic currents on the neutral conductors generated by non-linear loads
- Features oversized neutral conductor
- Cable designs and conductor color schemes compatible with most modular office furniture
- UL Classified through-penetrating product for use in through-penetrating fire stop systems
- Made in USA of US and/or imported materials

### **Applications**

Branch circuit and feeder wiring for computers, programmable controllers, electronic discharge lighting, office machines and other electronic equipment that introduce additive harmonic currents from non-linear switching loads, compatible with most modular office furniture, under raised floors, above suspended ceilings, environmental airhandling spaces, and applications requiring superior EMI shielding (steel armor only)

### **Product Specifications**

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Super Neutral Cable®

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# Parking Deck/Lot Cable™ – PVC Jacketed MC Cable Interlocked Galvanized Steel Armor with PVC Jacket

#### **Features & Benefits**

- Interlocked galvanized steel strip with PVC jacket
- UL listed for direct burial in earth or concrete encasement
- Listed for -40°C low temperature use
- UL1569, 70,000 BTU and FT4 vertical tray flame listed
- Sunlight and oil resistant
- Direct plow-in capability
- Made in USA of US and/or imported materials

### **Applications**

Branch circuit and feeder wiring for lighting, control and signal circuits in wet, dirty or oily locations, buried directly in earth or concrete, surface mounted or trenched for use in parking deck or parking lot applications, golf courses, ski mountains, docks, marinas, pumping stations and stadium lighting. Also used in continuous runs to outdoor or underground swimming pool motors, pumps and related equipment (per NEC® 680), fished, exposed or concealed cable trays, direct sunlight and hazardous locations up to Class I & II, Div. 2 and Class III, Div. 1 & 2 (NEC® Articles 501, 502, 503, 530).

### **Product Specifications**

Refer to page:

Parking Deck/Lot Cable PVC Jacketed Metal Clad Cable

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# Home Run Cable®

**Interlocked Galvanized Steel Armor** 

### **Features & Benefits**

- Home Run Cable® is a traditional Type MC cable containing one or more copper grounding conductors; the armor is not an equipment grounding means
- Versatile multi-conductor cable phase identified by color code with separate marking for circuit identification
- UL Classified through-penetrating product for use in through-penetrating fire stop systems
- Made in USA of US and/or imported materials

### **Applications**

Multi-conductor runs from panel board to junction box for power, lighting, control and signal circuits, also used in repetitive home runs in multi-story hotels, dormitories, commercial office buildings and warehouse applications. Conductors must be derated per NEC® Table 310.15(B)(3)(a), exposed, concealed, or fished, in cable trays and environmental air-handling spaces.

### **Product Specifications**

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Home Run Cable®

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# Fire Alarm® Control Cable & Power Limited Fire Alarm Circuit Cable

Interlocked Galvanized Steel Armor Color Coded Red

#### **Features & Benefits**

- Red armor identifies Fire Alarm cable
- Type FPLP or Dual-Rated Type MC/FPLP is plenum rated
- Available with twisted shielded pairs
- Superior EMI shielding versus aluminum armor
- UL Classified through-penetrating product for use in through-penetrating fire stop systems
- Fire Alarm/Control cable is a traditional Type MC cable containing one or more copper grounding conductors; the armor is not an equipment grounding means
- Made in USA of US and/or imported materials

### **Applications**

Fire alarm wiring or remote control hook-up connecting main fire alarm control panel with pull stations, smoke detectors and alarms, remote control circuits from magnetic motor starters, contractor, relays and signals, exposed, concealed, in cable trays, ducts, plenums or other environmental air-handling spaces, FPLP, in hazardous locations up to Class I & II, Div. 2 and Class III, Div. 1 & 2 (per NEC® Articles 501, 502, 503, 530).

Product Specifications	Refer to page
Fire Alarm® Control Cable — Type MC — Dual Rated Type MC/FPLP	29
Fire Alarm® Control Cable Performance Charts	30
Power Limited Fire Alarm Circuit Cable — Type FPLP	31





### MC TUFF® Steel Cable

Lightweight Steel Metal Clad Cable High Strength, Lightweight Interlocked Galvanized Steel Armor Featuring ColorSpec®\*

#### **Features & Benefits**

- High strength, lightweight interlocked steel armor
- Blue armor for easy identification
- May be used with set-screw connectors UL listed for use with MC cable
- Superior EMI shielding versus aluminum armor
- UL Classified through-penetrating product for use in through-penetrating fire stop systems
- MC TUFF is a traditional Type MC cable containing one or more copper grounding conductors; the armor is not an equipment grounding means
- Made in USA of US and/or imported materials

### **Applications**

Commercial, industrial, multi-residential branch circuits and feeder wiring-services for power, lighting, control and signal circuits, exposed or concealed, fished, surface mounted, embedded in plaster, environmental air-handling spaces, open or messenger supported aerial runs, dry locations, hazardous locations to Class I & II Div. 2 and Class III, Div. 1 & 2 (per NEC® Articles 501, 502, 503, 530), Places of Assembly, and applications requiring superior EMI shielding

### **Product Specifications**

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MCTUFF® Lightweight Steel Metal Clad Cable (120/208V Colors) MCTUFF® Lightweight Steel Metal Clad Cable (277/480V Colors)

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\*U.S. Patent No. 8,278,554 B2



# MC 8 AWG-2 through 2 AWG-4 Steel Armored Cable

Interlocked Galvanized Steel Armor with Copper Conductor

### **Features & Benefits**

- Interlocked galvanized steel strip
- May be used with set-screw connectors UL listed for use with MC Cable
- Superior EMI shielding versus aluminum armor
- UL Classified through-penetrating product for use in through-penetrating fire stop systems
- Type MC Steel Metal Clad cable is a traditional Type MC cable containing one or more copper grounding conductors;
   the armor is not an equipment grounding means.
- Made in USA of US and/or imported materials

### **Applications**

Commercial, industrial, multi-residential branch circuits and feeder wiring-services for power, lighting, control and signal circuits. Exposed or concealed, fished, surface mounted, embedded in plaster, environmental air-handling spaces, open or messenger supported aerial runs, dry locations, in hazardous locations to Class I & II Div. 2 and Class III, Div. 1 & 2 (per NEC® Articles 501, 502, 503, 530), Places of Assembly (per NEC® Article 518), and applications requiring superior EMI shielding

### **Product Specifications**

Refer to page:

Type MC Steel Metal Clad Cable (8 AWG-2 through 2 AWG-4)

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### MC Lite® Aluminum Cable

Interlocked Aluminum Armor Featuring ColorSpec®

### **Features & Benefits**

- Interlocked aluminum strip with phase/circuit stripes (on 14 AWG and 12 AWG only)
- UL Classified through-penetrating product for use in through-penetrating fire stop systems
- MC Lite is a traditional Type MC cable containing one or more copper grounding conductors; the armor is not an equipment grounding means
- Aluminum armored cables are RoHS Compliant
- Made in USA of US and/or imported materials

### **Applications**

Commercial, industrial, multi-residential branch circuits and feeder wiring, services for power, lighting, control and signal circuits. Exposed or concealed, fished, surface mounted, embedded in plaster, environmental air-handling spaces, open or messenger supported aerial runs, dry locations, in hazardous locations to Class I & II Div. 2 and Class III, Div. 1 & 2 (per NEC® Articles 501, 502, 503, 530), and in Places of Assembly

Product Specifications	Refer to page:
MC Lite® Metal Clad Aluminum Cable (120/208V and 277/480V Conductor Colors, no stripes)	36
MC Lite® Metal Clad Aluminum Cable (120/208V Colors)	37
MC Lite® Metal Clad Aluminum Cable (277/480V Colors)	38

\*U.S. Patent No. 8,278,554 B2

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# MC 8 AWG-2 through 1 AWG-4 Aluminum Armored Cable

**Interlocked Aluminum Armor with Copper Conductors** 

#### **Features & Benefits**

- Interlocked aluminum strip
- Overall polypropylene assembly tape
- One insulated green copper conductor

### **Applications**

Commercial, industrial, multi-residential branch circuits and feeder wiring, services for power, lighting, control and signal circuits. Exposed or concealed, fished, surface mounted, embedded in plaster, environmental air-handling spaces, open or messenger supported aerial runs, dry locations, in hazardous locations to Class I & II Div. 2 and Class III, Div. 1 & 2 (per NEC® Articles 501, 502, 503, 530), and in Places of Assembly (per NEC® 518)

### **Product Specifications**

Intermediate 8 AWG-2 through 1 AWG-4

Refer to page:

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### MC Intermediate & Feeder Cable

Interlocked Aluminum Armor

#### **Features & Benefits**

- Interlocked Aluminum Strip
- Overall polypropylene assembly tape
- One bare copper grounding conductor
- XHHW-2 conductor insulation

### **Applications**

Commercial, industrial, multi-residential branch circuits and feeder wiring, services for power, lighting, control and signal circuits. Exposed or concealed, fished, surface mounted, embedded in plaster, environmental air-handling spaces, open or messenger supported aerial runs, dry locations, in hazardous locations to Class I & II Div. 2 and Class III, Div. 1 & 2 (per NEC® Articles 501, 502, 503, 530), and in Places of Assembly

### **Product Specifications**

MC Intermediate & Feeder Cable

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# MCTUFF® IG & MC Lite® IG – Isolated Ground Cable

MC Tuff® Lightweight Blue Interlocked Steel Armored Isolated Ground Cable MC Lite® Interlocked Aluminum Armored Isolated Ground Cable

### **Features & Benefits**

- Ideal where isolated or dedicated grounding is required
- High strength, lightweight steel or aluminum armor
- Features 2 Green grounds, 1 solid green, 1 with yellow stripe
- Blue or silver armor with additional green stripe for easy identification
- UL Classified through-penetrating product for use in through-penetrating fire stop systems
- MC TUFF IG & MC Lite IG are traditional Type MC cables; the armor is not an equipment grounding means
- Aluminum armored cables are RoHS Compliant
- Made in USA of US and/or imported materials

#### **Applications**

Commercial, industrial, multi-residential branch circuits and feeder wiring approved for MC cable requiring isolated, redundant or dedicated grounding conductors, services for power, lighting, control and signal circuits, exposed or concealed, fished, surface mounted, embedded in plaster, environmental air-handling spaces, open or messenger supported aerial runs, dry locations, in hazardous locations to Class I & II Div. 2 and Class III, Div. 1 & 2 (per NEC® Articles 501, 502, 503, 530), and in Places of Assembly

### **Product Specifications**

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MC TUFF® IG Lightweight Steel Cable
MC Lite® IG Metal Clad Aluminum Cable (120/208V Colors)

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\*U.S. Patent No. 8,278,554 B2

"U.S. Patent NO. 6,276,3

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# **Type MC Cables**

MC Tuff Luminary® Cable (U.S. Patent Pending)	14
MC Lite Luminary® Cable (U.S. Patent Pending)	1
MC Luminary® PVC Jacketed Cable (U.S. Patent Pending)	1
MC Luminary Multizone™ Cable (U.S. Patent Pending)	17
MC Luminary HCF™ Lite Cables (U.S. Patent Pending)	18
MC-Quik® Steel Armored Cable	19
MC-Quik® Lite Aluminum Armored Cable (Solid)	20
MC-Quik® Lite Aluminum Armored Cable (Stranded)	2
MC-Stat® & MC-Stat® Lite Cable	22
MC-Stat® Plus Cable & MC-Stat® Plus Lite Cable	2
MC-Plus® Neutral per Phase Cable	2
MC Plus Lite Neutral per Phase Cable	2
Super Neutral Cable®/Neutral per Phase or Oversized Neutral	26
Parking Deck/Lot Cable™	2
Home Run Cable®	2
Fire Alarm® Control Cable — Type MC — Dual Rated	
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# MC Tuff Luminary® Cable (U.S. Patent Pending) UL Listed Type MC-PCS (Steel) Technical Specifications

### Armor

Interlocked Galvanized Steel Strip (Blue Armor)

### **Conductors**

Solid Copper

### **Conductor Insulation**

THHN/THWN (Power)

TFN (Control Cables)

### **Assembly Covering**

Polypropylene Tape

### **Maximum Temperature Rating**

90°C (Dry)

### Grounding

Insulated Green Copper Grounding Conductor

### **Neutral Conductor**

White 120/208V

Gray 277/480V

### **Maximum Voltage Rating**

600V



### **References & Ratings**

- UL 66, 83, 1479, 1569, 1581, 2556, File Reference E80042
- NEC® 250.118, 300.22(C), 392, 396, 330, 501, 502, 503, 530, 504, 505, 518, 520, 530, 645, 725
- Permits conductors of control circuits to be placed in a cable with conductors of electric light, power, or Class 1 circuits
- Federal Specification A-A-59544 (formerly J-C-30B)
- Meets all applicable OSHA and HUD Requirements
- Cable Tray Rated, install per NEC®
- UL Classified 1, 2, and 3 hour through penetration (Fire Stop) product, R14141
- Environmental Air-Handling Space Installation per NEC® 300.22(C)
- Power and/or lighting as well as signal and/or control conductors per NEC® Section 725.136(I)(1)
- May be surface mounted, fished and/or embedded in plaster
- Save up to 30% labor and installation costs compared to traditional wiring methods
- Made in USA of US and/or imported materials

Produc	ct Code	Trade Size		th (ft)	Approx. Weight/	Approx. Armor O.D.
Coil	Reel	irade Size	Coil	Reel	1,000ft (lbs)	(in)
MC Tuff Lumina	ry Solid					
18BEB42T500	18BEB60T500	16-2 (1TPJ) (Purple, Gray) 12-2 (Black, White, Green)	250	1000	238	0.626
18BEB42T504	18BEB60T504	16-2 (1TPJ) (Purple, Gray) 12-2 (Red, White, Green)	250	1000	238	0.626
18BEB42T505	18BEB60T505	16-2 (1TPJ) (Purple, Gray) 12-2 (Blue, White, Green)	250	1000	238	0.626
18BEB42T501	18BEB60T501	16-2 (1TPJ) (Purple, Gray) 12-2 (Brown, Gray, Green)	250	1000	238	0.626
18BEB42T502	18BEB60T502	16-2 (1TPJ) (Purple, Gray) 12-2 (Orange, Gray, Green)	250	1000	238	0.626
18BEB42T503	18BEB60T503	16-2 (1TPJ) (Purple, Gray) 12-2 (Yellow, Gray, Green)	250	1000	238	0.626
18BEB42T507	18BEB60T507	16-2 (1TPJ) Purple, Gray) 12-2 (Purple, Gray, Green)	250	1000	238	0.626
18BMB42T500	18BMB60T500	16-2 (1TPJ) (Purple, Gray) 12-3 (Black, Red, White, Green)	250	1000	269	0.653
18BMB42T501	18BMB60T501	16-2 (1TPJ) (Purple, Gray) 12-3 (Brown, Orange, Gray, Green)	250	1000	269	0.653
18BKB42T500	18BKB60T500	16-2 (1TPJ) (Purple, Gray) 10-2 (Black, White, Green)	250	1000	291	0.670
18BKB42T501	18BKB60T501	16-2 (1TPJ) (Purple, Gray) 10-2 (Brown, Gray, Green)	250	1000	291	0.670

Other custom constructions available subject to minimums and manufacturing lead-times; contact your AFC Representative for more information.

MC Luminary Cable® is intended for use in non shielded applications

# MC Lite Luminary® Cable (U.S. Patent Pending)

# **UL Listed Type MC-PCS (Aluminum) Technical Specifications**

#### Armor

Interlocked Aluminum Strip

#### **Conductors**

Solid or Stranded Copper

#### **Conductor Insulation**

THHN/THWN (Power)
TFN (Control Cables)

### **Assembly Covering**

Polypropylene Tape

### **Maximum Temperature Rating**

90°C (Dry)

### Grounding

Insulated Green Copper Grounding Conductor

#### **Neutral Conductor**

White 120/208V Gray 277/480V

### **Maximum Voltage Rating**

600V



### **References & Ratings**

- UL 66, 83, 1479, 1569, 1581, 2556, File Reference E80042
- NEC® 250.118, 300.22(C), 392, 396, 330, 501, 502, 503, 530, 504, 505, 518, 520, 530, 645, 725
- Permits conductors of control circuits to be placed in a cable with conductors of electric light, power, or Class 1 circuits
- Federal Specification A-A-59544 (formerly J-C-30B)
- Meets all applicable OSHA and HUD Requirements
- Cable Tray Rated, install per NEC®
- UL Classified 1, 2, and 3 hour through penetration (Fire Stop) product, R14141
- Environmental Air-Handling Space Installation per NEC® 300.22(C)
- Power and/or lighting as well as signal and/or control conductors per NEC® Section 725.136(I)(1)
- May be surface mounted, fished and/or embedded in plaster
- Save up to 30% labor and installation costs compared to traditional wiring methods
- Made in USA of US and/or imported materials

Produ	t Code	7.1.60	Leng	th (ft)	Approx. Weight/	Approx. Armor O.D.
Coil	Reel	Trade Size	Coil	Reel	1,000ft (lbs)	(in)
MC Lite Lum	inary® Solid					
18BF-42-500	18BF-60-500	16-2 (1TPJ) (Purple, Gray) 12-2 (Black, White, Green)	250	1000	156	0.626
18BF-42-504	18BF-60-504	16-2 (1TPJ) (Purple, Gray) 12-2 (Red, White, Green)	250	1000	156	0.626
18BF-42-505	18BF-60-505	16-2 (1TPJ) (Purple, Gray) 12-2 (Blue, White, Green)	250	1000	156	0.626
18BF-42-501	18BF-60-501	16-2 (1TPJ) (Purple, Gray) 12-2 (Brown, Gray, Green)	250	1000	156	0.626
18BF-42-502	18BF-60-502	16-2 (1TPJ) (Purple, Gray) 12-2 (Orange, Gray, Green)	250	1000	156	0.626
18BF-42-503	18BF-60-503	16-2 (1TPJ) (Purple, Gray) 12-2 (Yellow, Gray, Green)	250	1000	156	0.626
18BG-42-500	18BG-60-500	16-2 (1TPJ) (Purple, Gray) 12-3 (Black, Red, White, Green)	250	1000	183	0.653
18BG-42-501	18BG-60-501	16-2 (1TPJ) (Purple, Gray) 12-3 (Brown, Orange, Gray, Green)	250	1000	183	0.653
18BH-42-500	18BH-60-500	16-2 (1TPJ) (Purple, Gray) 10-2 (Black, White, Green)	250	1000	202	0.670
18BH-42-501	18BH-60-501	16-2 (1TPJ) (Purple, Gray) 10-2 (Brown, Gray, Green)	250	1000	202	0.670
MC Lite Lum	inary® Strand	ed (16-2 Solid)				
18SF-42-500	18SF-60-500	16-2 (1TPJ) (Purple, Gray) 12-2 (Black, White, Green)	250	1000	159	0.641
18SF-42-501	18SF-60-501	16-2 (1TPJ) (Purple, Gray) 12-2 (Brown, Gray, Green)	250	1000	159	0.641
18SI-42-500	18SI-60-500	16-2 (1TPJ) (Purple, Gray) 12-3 (Black, Red, White, Green)	250	1000	188	0.666
18SI-42-501	18SI-60-501	16-2 (1TPJ) (Purple, Gray) 12-3 (Brown, Orange, Gray, Green)	250	1000	188	0.666

Other custom constructions available subject to minimums and manufacturing lead-times; contact your AFC Representative for more information. MC Luminary Cable® is intended for use in non shielded applications

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# MC Luminary® PVC Jacketed Cable (U.S. Patent Pending) UL Listed Type MC-PCS (Steel) Technical Specifications

### Armor

Interlocked Galvanized Steel Strip with Charcoal Gray PVC Jacket

### Conductors

Solid Copper

#### **Conductor Insulation**

THHN/THWN (Power)

TFN (Control Cable)

### **Assembly Covering**

Polypropylene Tape

### **Maximum Temperature Rating**

90°C (Dry), 75°C (Wet)

### Grounding

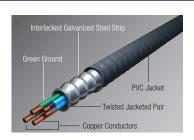
Insulated Green Copper Grounding Conductor

#### **Neutral Conductor**

White 120/208V Gray 277/480V

### **Maximum Voltage Rating**

600V



### **References & Ratings**

- UL 66, 83,1569, 1581, 2556, File Reference E80042
- NEC® 250.118, 392, 396, 330, 501, 502, 503, 530, 504, 505, 518, 520, 530, 645, 725
- UL listed for direct burial in earth or concrete encasement
- Listed for -40°C low temperature use
- UL1569, 70,000 BTU and FT4 vertical tray flame listed
- · Sunlight and oil resistant with direct plow-in capability
- Save up to 30% labor and installation costs
- Federal Specification A-A-59544 (formerly J-C-30B)
- Meets all applicable OSHA and HUD Requirements
- Cable Tray Rated, install per NEC<sup>®</sup>
- Power and/or lighting as well as signal and/or control conductors per NEC® Section 725.136(I)(1)
- Made in USA of US and/or imported materials

Produc	ct Code	Code Trade Size Reel		th (ft)	Approx. Weight/	Approx. Armor O.D.	Approx. Over Jacket O.D.
Coil	Reel			Reel	1,000ft (lbs)	(in)	(in)
MC Lumina	ary® PVC Jacl	keted Cable					
LJ04-42-500	LJ04-60-500	16-2 BLUE JACKET (1TPJ) (Purple, Gray) 12-2 (Black, White, Green)	250	1000	345	0.623	0.723
LJ04-42-501	LJ04-60-501	16-2 BLUE JACKET (1TPJ) (Purple, Gray) 12-2 (Brown, Gray, Green)	250	1000	34	0.623	0.723
LJ04-42-502	LJ04-60-502	16-2 BLUE JACKET (1TPJ) (Purple, Gray) 12-2 (Orange, Gray, Green)	250	1000	34	0.623	0.723
LJ04-42-503	LJ04-60-503	16-2 BLUE JACKET (1TPJ) (Purple, Gray) 12-2 (Yellow, Gray, Green)	250	1000	34	0.623	0.723
LJ04-42-504	LJ04-60-504	16-2 BLUE JACKET (1TPJ) (Purple, Gray) 12-2 (Red, White, Green)*	250	1000	34	0.623	0.723
LJ04-42-505	LJ04-60-505	16-2 BLUE JACKET (1TPJ) (Purple, Gray) 12-2 (Blue, White, Green)*	250	1000	34	0.623	0.723
LJ05-42-500	LJ05-60-500	16-2 BLUE JACKET (1TPJ) (Purple, Gray) 12-3 (Black, Red, White, Green)	250	1000	381	0.650	0.750
LJ05-42-501	LJ05-60-501	16-2 BLUE JACKET (1TPJ) (Purple, Gray) 12-3 (Brown, Orange, Gray Green)	250	1000	381	0.650	0.750
LJ07-42-500	LJ07-60-500	16-2 BLUE JACKET (1TPJ) (Purple, Gray) 10-2 (Black, White, Green)*	250	1000	407	0.667	0.767
LJ07-42-501	LJ07-60-501	16-2 BLUE JACKET (1TPJ) (Purple, Gray) 10-2 (Brown, Gray, Green)*	250	1000	407	0.667	0.767

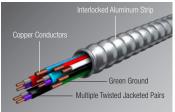
Other custom constructions available subject to minimums and manufacturing lead-times; contact your AFC Representative for more information.

MC Luminary Cable® is intended for use in non shielded applications

<sup>\*</sup>Made to order, subject to minimums and lead times

# MC Luminary Multizone™ Cable (U.S. Patent Pending) MC LUMINARY **UL Listed Type MC-PCS Technical Specifications**





#### **Armor**

Interlocked Aluminum Strip

### **Conductors**

Solid Copper

#### **Conductor Insulation**

THHN/THWN (Power)

TFN (Control Cable)

#### **Assembly Covering**

Polypropylene Tape

### **Maximum Temperature Rating**

90°C (Dry)

### Grounding

Insulated Green Copper Grounding Conductor

#### **Neutral Conductor**

White 120/208V Gray 277/480V

### **Maximum Voltage Rating**

### **References & Ratings**

- UL 66, 83, 1479, 1569, 1581, 2556, File Reference E80042
- NEC® 250.118, 300.22(C), 392, 396, 330, 501, 502, 503, 530, 504,505, 518, 520, 530, 645, 725
- Federal Specification A-A-59544 (formerly J-C-30B)
- Meets all applicable OSHA and HUD Requirements
- Cable Tray Rated, install per NEC<sup>®</sup>
- UL Classified 1, 2, and 3 hour through penetration (Fire Stop) product, R14141
   Environmental Air-Handling Space Installation per NEC® 300.22(C)
- Power and/or lighting as well as signal and/or control conductors per NEC® Section 725.136(I)(1)
- · Made in USA of US and/or imported materials

Produ	ıct Code						Approx. Weight/	A A O D
Reels 250'	Reels 1,000′	Control Cable	Trad	le Size	Neutral	Ground	1,000ft (lbs)	Approx. Armor O.D (in)
MC Luminar	y® Multizone"	" Cable						
18LC-44-500	18LC-60-500	16-2 (Purple, Gray) 1 TPJ Black Jacket	12-2	Black	12-1 White	12-1 Green	241	0.795
		16-2 (Purple, Gray) 1 TPJ Red Jacket		Red				
18LC-44-501	18LC-60-501	16-2 (Purple, Gray) 1 TPJ Brown Jacket	12-2	Brown	12-1 Gray	12-1 Green	241	0.795
		16-2 (Purple, Gray) 1TPJ Orange Jacket		Orange				
18LD-44-500	18LD-60-500	16-2 (Purple, Gray) 1 TPJ Black Jacket	12-3	Black	12-1 White	12-1 Green	315	0.902
		16-2 (Purple, Gray) 1 TPJ Red Jacket		Red				
		16-2 (Purple, Gray) 1 TPJ Blue Jacket		Blue				
18LD-44-501	18LD-60-501	16-2 (Purple, Gray) 1 TPJ Brown Jacket	12-3	Brown	12-1 Gray	12-1 Green	315	0.902
		16-2 (Purple, Gray) 1TPJ Orange Jacket		Orange				
		16-2 (Purple, Gray) 1TPJ Yellow Jacket		Yellow				
18LP-44-500	18LP-60-500	16-2 (Purple, Gray) 1 TPJ Black Jacket	12-2	Black	12-2 White w/Black	12-1 Green	271	0.833
		16-2 (Purple, Gray) 1 TPJ Red Jacket		Red	12-2 White w/Red			
18LP-44-501	18LP-60-501	16-2 (Purple, Gray) 1 TPJ Brown Jacket	12-2	Brown	12-2 Gray w/Brown	12-1 Green	271	0.833
		16-2 (Purple, Gray) 1TPJ Orange Jacket		Orange	12-2 Gray w/Orange			
18LQ-44-500	18LQ-60-500	16-2 (Purple, Gray) 1 TPJ Black Jacket	12-3	Black	12-3 White w/Black	12-1 Green	347	0.942
		16-2 (Purple, Gray) 1 TPJ Red Jacket		Red	12-3 White w/Red			
		16-2 (Purple, Gray) 1 TPJ Blue Jacket		Blue	12-3 White w/Blue			
18LQ-44-501	18LQ-60-501	16-2 (Purple, Gray) 1 TPJ Brown Jacket	12-3	Brown	12-3 Gray w/Brown	12-1 Green	347	0.942
		16-2 (Purple, Gray) 1TPJ Orange Jacket		Orange	12-3 Gray w/Orange			
		16-2 (Purple, Gray) 1TPJ Yellow Jacket		Yellow	12-3 Gray w/Yellow			
18LS-44-500	18LS-60-500	16-2 (Purple, Gray) 1 TPJ Black Jacket	12-1	Black	12-1 White	12-1 Green	260	0.842
		16-2 (Purple, Gray) 1 TPJ Red Jacket						
		16-2 (Purple, Gray) 1 TPJ Blue Jacket						
18LS-44-501	18LS-60-501	16-2 (Purple, Gray) 1 TPJ Brown Jacket	12-1	Brown	12-1 Gray	12-1 Green	260	0.842
		16-2 (Purple, Gray) 1TPJ Orange Jacket						
		16-2 (Purple, Gray) 1TPJ Yellow Jacket						

Other custom constructions available, also available with steel armor, subject to minimums and manufacturing lead-times; contact your AFC Representative for more information. MC Luminary Cable® is intended for use in non shielded applications

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# MC Luminary HCF™ Lite Cable (U.S. Patent Pending) UL Listed Type MC-PCS Healthcare Facilities (Aluminum)

#### Armor

Interlocked Aluminum Strip (Light Green Striped)

### **Conductors**

Solid/Stranded Copper

#### **Conductor Insulation**

THHN + Protective Polypropylene Covering (Power) TFN (Control)

#### **Maximum Temperature Rating**

90°C (Dry)

#### Grounding

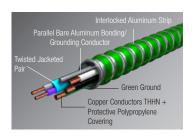
Two Grounding Means - (1) Combined Armor and Full-Sized Aluminum Ground Conductor per NEC® 250.118(10)(b), (2) Full-Sized Green Insulated Copper Grounding Conductor per NEC® 250.118(1)

### **Neutral Conductor**

White 120/208V Gray 277/480V

#### **Maximum Voltage Rating**

600V



### **References & Ratings**

- UL 66, 83, 1479, 1569, 1581, 2556, File Reference E80042
- NEC® 330, 250.118, 300.22(C), 392, 396, 330, 501, 502, 503, 530, 504, 505, 517, 518, 520, 530, 645, 690.31(E), 725
- Permits conductors of control circuits to be placed in a cable with conductors of electric light, power, or Class 1 circuits
- Federal Specification A-A-59544 (formerly J-C-30B)
- Meets all applicable OSHA and HUD Requirements
- Cable Tray Rated, install per NEC®
- UL Classified 1, 2, and 3 hour through penetration (Fire Stop) product, R14141
- Environmental Air-Handling Space Installation per NEC® 300.22(C)
- Power and/or lighting as well as signal and/or control conductors per NEC® Section 725.136(I)(1)
- Made in USA of US and/or imported materials
- U.S. Patent No. 8,088,997 & Patent Pending

Produc	t Code	Trade Size	Copper Conductor Type	Grounding Conductor AWG Color	Bare Alum. Bonding/ Bond Cond. AWG	Length (ft)		Approx. Weight/ 1,000ft (lbs)	Approx. Armor O.D. (in)
Coil	Reel					Coil	Reel	,	, ,
MC Lumina	ry HCF™ Lite	Cable - Solid							
LH04-42-500	LH04-60-500	16-2 (1TPJ) (Purple, Gray) 12-2 (Black, White)	Solid	12 (Green)	10	250	1000	197	0.708
LH04-42-504	LH04-60-504	16-2 (1TPJ) (Purple, Gray) 12-2 (Red, White)*	Solid	12 (Green)	10	250	1000	197	0.708
LH04-42-505	LH04-60-505	16-2 (1TPJ) (Purple, Gray) 12-2 (Blue, White)*	Solid	12 (Green)	10	250	1000	197	0.708
LH04-42-501	LH04-60-501	16-2 (1TPJ) (Purple, Gray) 12-2 (Brown, Gray)	Solid	12 (Green)	10	250	1000	197	0.708
LH04-42-502	LH04-60-502	16-2 (1TPJ) (Purple, Gray) 12-2 ( <mark>Orange</mark> , Gray)*	Solid	12 (Green)	10	250	1000	197	0.708
LH04-42-503	LH04-60-503	16-2 (1TPJ) (Purple, Gray) 12-2 (Yellow, Gray)*	Solid	12 (Green)	10	250	1000	197	0.708
LH05-42-500	LH05-60-500	16-2 (1TPJ) (Purple, Gray) 12-3 (Black, Red, White)	Solid	12 (Green)	10	250	1000	227	0.751
LH05-42-501	LH05-60-501	16-2 (1TPJ) (Purple, Gray) 12-3 (Brown, Orange, Gray)*	Solid	12 (Green)	10	250	1000	227	0.751
LH07-42-500	LH07-60-500	16-2 (1TPJ) (Purple, Gray) 10-2 (Black, White)	Solid	10 (Green)	8	250	1000	256	0.758
LH07-42-501	LH07-60-501	16-2 (1TPJ) (Purple, Gray) 10-2 (Brown, Gray)*	Solid	10 (Green)	8	250	1000	256	0.758
MC Lumina	ry HCF™ Lite	Cable - Stranded (16-2 Sol	id)						
LH58-42-500	LH58-60-500	16-2 (1TPJ) (Purple, Gray) 12-2 (Black, White)	Stranded	12 (Green)	10	250	1000	202	0.725

Use with fitting listed and marked for use with MCI-A

Other custom constructions available, also available with steel armor, subject to minimums and manufacturing lead-times; contact your AFC Representative for more information.

 $\ensuremath{\mathsf{MC}}$  Luminary Cable® is intended for use in non shielded applications

<sup>\*</sup> Subject to minimums and manufacturing lead times

Interlocked Galvanized Steel Strip

# **MC-Quik® Steel Armored Cable**

## Type MCI-A Cables (120/208V & 277/480V) Technical Specifications

#### Armor

Interlocked Galvanized Steel Strip (Purple Striped)

#### **Conductors**

Solid/Stranded Copper

#### **Conductor Insulation**

Type THHN with Protective Polypropylene Covering on Each Insulated Conductor (No Assembly Tane)

#### **Maximum Temperature Rating**

90°C (Dry)

#### Grounding

Combined Armor and Full-Sized Aluminum Ground/Bond Conductor NEC® 250.118(10)(b)

#### **Neutral Conductor**

White 120/208V Gray 277/480V

#### **Maximum Voltage Rating**

600V





#### **References & Ratings**

- UL 1569, 83, 1479, 1581, 2556, File Reference E80042
- Federal spec A-A-59544 (formerly J-C-30B)
- NEC® 330, 300.22(C), 230.43, 250.118, 392, 396, 501, 502, 503, 530, 518, 520, 645, 690.31(E)
- Meets all OSHA and HUD requirements
- May be surface mounted, fished and/or embedded in plaster
- UL Classified 1, 2, and 3 hour through (Fire) penetration product, R14141
- NEC® 300.22(C) Environmental Air Handling Spaces
- Cable Tray Rated, install per NEC®
- US Patent No. 8,088,997 B2, No. 8,278,554 B2
- Made in USA of US and/or imported materials

Product Code		Trade Size	Bare Alum. Bonding/Bond	Lengt	th (ft)	Approx. Weight/	Armor Nom. O.D.
250' Coil	1000' Reel	AWG	Cond. AWG	Coil	Reel	1,000ft (lbs)	(in)
/IC-Quik® Stee	l Armor Cable						
20/208V Solid							
7704-42-00	7704-60-00	12-2 Solid (Black, White)	10	250	1000	122	0.463
7704-42-04*	7704-60-04*	12-2 Solid (Red, White)	10	250	1000	122	0.463
7704-42-05*	7704-60-05*	12-2 Solid (Blue, White)	10	250	1000	122	0.463
7705-42-00	7705-60-00	12-3 Solid (Black, Red, White)	10	250	1000	159	0.523
7705-42-04*	7705-42-04*	12-3 Solid (Red, Blue, White)	10	250	1000	159	0.523
7705-42-05*	7705-60-05*	12-3 Solid (Black, Blue, White)	10	250	1000	159	0.523
7706-42-00	7706-60-00	12-4 Solid (Black, Red, Blue, White)	10	250	1000	208	0.565
7707-42-00	7707-60-00	10-2 Solid (Black, White)	8	250	1000	182	0.525
7707-42-04*	7707-60-04*	10-2 Solid (Red, White)	8	250	1000	182	0.525
7707-42-05*	7707-60-05*	10-2 Solid (Blue, White)	8	250	1000	182	0.525
7708-42-00	7708-60-00	10-3 Solid (Black, <mark>Red</mark> , White)	8	250	1000	240	0.601
7708-42-04*	7708-60-04*	10-3 Solid (Red, Blue, White)	8	250	1000	240	0.601
7708-42-05*	7708-60-05*	10-3 Solid (Blue, Black, White)	8	250	1000	240	0.601
7709-42-00	7709-60-00	10-4 Solid (Black, Red, Blue, White)	8	250	1000	309	0.651
120/208V Strande	ed						
7758-42-00*	7758-60-00*	12-2 Stranded (Black, White)	10	250	1000	127	0.482
277/480V Solid							
7704-42-01	7704-60-01	12-2 Solid (Brown, Gray)	10	250	1000	122	0.463
7704-42-02*	7704-60-02*	12-2 Solid (Orange, Gray)	10	250	1000	122	0.463
7704-42-03*	7704-60-03*	12-2 Solid (Yellow, Gray)	10	250	1000	122	0.463
7704-42-07*	7704-60-07*	12-2 Solid (Purple, Gray)	10	250	1000	122	0.463
7705-42-01	7705-60-01	12-3 Solid (Brown, Orange, Gray)	10	250	1000	159	0.523
7705-42-02*	7705-60-02*	12-3 Solid (Orange, Yellow, Gray)	10	250	1000	159	0.523
7705-42-03*	7705-60-03*	12-3 Solid (Brown, Yellow, Gray)	10	250	1000	159	0.523
7705-42-07*	7705-60-07*	12-3 Solid (Brown, Purple, Gray)	10	250	1000	159	0.523
7706-42-01	7706-60-01	12-4 Solid (Brown, Orange, Yellow, Gray)	10	250	1000	208	0.565
7707-42-01	7707-60-01	10-2 Solid (Brown, Gray)	8	250	1000	182	0.525
7707-42-02*	7707-60-02*	10-2 Solid (Orange, Gray)	8	250	1000	182	0.525
7707-42-03*	7707-60-03*	10-2 Solid (Yellow, Gray)	8	250	1000	182	0.525
7707-42-03	7708-60-03	10-3 Solid (Brown, Orange, Gray)	8	250	1000	240	0.601
	7708-60-01	10-3 Solid (Orange, Yellow, Gray)	8				
7708-42-02*				250	1000	240	0.601
7708-42-03*	7708-60-03*	10-3 Solid (Brown, Yellow, Gray)	8	250	1000	240	0.601
7709-42-01	7709-60-01	10-4 Solid (Brown, Yellow, Orange, Gray)	8	250	1000	309	0.651

NOTE: All dimensions and weights are subject to normal manufacturing tolerances.

**USE WITH AN MCI-A LISTED CONNECTOR.** 

<sup>\*</sup> Subject to minimums and lead times.

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# MC-Quik® Lite Aluminum Armored Cable (Solid)

# Type MCI-A Cables (120/208V & 277/480V) Technical Specifications

### Armor

Interlocked Aluminum Strip

### Conductors

Solid Copper

#### **Conductor Insulation**

Type THHN with Protective Polypropylene Covering on Each Insulated Conductor (No Assembly Tape)

### **Maximum Temperature Rating**

90°C (Dry)

#### Grounding

Combined Armor and Full-Sized Aluminum Ground/Bond Conductor NEC® 250.118(10)(b)

#### **Neutral Conductor**

White 120/208V Gray 277/480V

### **Maximum Voltage Rating**



#### **References & Ratings**

- UL 1569, 83, 1479, 1581, 2556, File Reference E80042
- Federal spec A-A-59544 (formerly J-C-30B)
- NEC® 330, 300.22(C), 230.43, 250.118, 392, 396, 501, 502, 503, 530, 518, 520, 645, 690.31(E)
- Meets all OSHA and HUD requirements
- $\bullet \;\;$  May be surface mounted, fished and/or embedded in plaster
- UL Classified 1, 2, and 3 hour through (Fire) penetration product, R14141
- NEC® 300.22(C) Environmental Air Handling Spaces
- Cable Tray Rated, install per NEC®
- U.S. Patent No. 8,088,997 B2
- Made in USA of US and/or imported materials

Product Code		Trade Size	Bare Alum. Bonding/	Leng	jth (ft)	Approx. Weight/	Armor Nom. O.D.
250' Coil	1000' Reel	AWG	Bond Cond. AWG	Coil	Reel	1,000ft (lbs)	(in)
MC-Quik® Lite (	Cable						
120/208V Solid							
3101Z42-00	3101Z60-00	14-2 Solid ((Black, White)	12	250	1000	66	0.422
3102Z42-00	3102Z60-00	14-3 Solid (Black, Red, White)	12	250	1000	88	0.467
3103Z42-00*	3103Z60-00*	14-4 Solid (Black, Red, Blue, White)	12	250	1000	109	0.503
3104Z42-00	3104Z60-00	12-2 Solid (Black, White)	10	250	1000	90	0.463
3104Z42-04	3104Z60-04	12-2 Solid (Red, White)	10	250	1000	90	0.463
3104Z42-05	3104Z60-05	12-2 Solid (Blue, White)	10	250	1000	90	0.463
3105Z42-00	3105Z60-00	12-3 Solid (Black, Red, White)	10	250	1000	122	0.523
3105Z42-04*	3105Z60-04*	12-3 Solid (Red, Blue, White)	10	250	1000	122	0.523
3105Z42-05*	3105Z60-05*	12-3 Solid (Black, Blue, White)	10	250	1000	122	0.523
3106Z42-00	3106Z60-00	12-4 Solid (Black, Red, Blue, White)	10	250	1000	151	0.565
3107Z42-00	3107Z60-00	10-2 Solid (Black, White)	8	250	1000	131	0.525
3107Z42-04*	3107Z60-04*	10-2 Solid (Red, White)	8	250	1000	131	0.525
3107Z42-05*	3107Z60-05*	10-2 Solid (Blue, White)	8	250	1000	131	0.525
3108Z42-00	3108Z60-00	10-3 Solid (Black, Red, White)	8	250	1000	178	0.601
3108Z42-04*	3108Z60-04*	10-3 Solid (Red, Blue, White)	8	250	1000	178	0.601
3108Z42-05*	3108Z60-05*	10-3 Solid (Black, Blue, White)	8	250	1000	178	0.601
3109Z42-00	3109Z60-00	10-4 Solid (Black, Red, Blue, White)	8	250	1000	242	0.651
277/480V Solid							
3104Z42-01	3104Z60-01	12-2 Solid (Brown, Gray)	10	250	1000	90	0.463
3104Z42-02	3104Z60-02	12-2 Solid (Orange, Gray)	10	250	1000	90	0.463
3104Z42-03	3104Z60-03	12-2 Solid (Yellow, Gray)	10	250	1000	90	0.463
3104Z42-07*	3104Z60-07*	12-2 Solid (Purple, Gray)	10	250	1000	90	0.463
3105Z42-01	3105Z60-01	12-3 Solid (Brown, Orange, Gray)	10	250	1000	122	0.523
3105Z42-02*	3105Z60-02*	12-3 Solid (Orange, Yellow, Gray)	10	250	1000	122	0.523
3105Z42-03*	3105Z60-03*	12-3 Solid (Yellow, Brown, Gray)	10	250	1000	122	0.523
3106Z42-01	3106Z60-01	12-4 Solid (Brown, Orange, Yellow, Gray)	10	250	1000	151	0.565
3107Z42-01	3107Z60-01	10-2 Solid (Brown, Gray)	8	250	1000	131	0.525
3107Z42-02*	3107Z60-02*	10-2 Solid (Orange, Gray)	8	250	1000	131	0.525
3107Z42-03*	3107Z60-03*	10-2 Solid (Yellow, Gray)	8	250	1000	131	0.525
3108Z42-01	3108Z60-01	10-3 Solid (Brown, Orange, Gray)	8	250	1000	178	0.601
3108Z42-02	3108Z60-02	10-3 Solid (Orange, Yellow, Gray)	8	250	1000	178	0.601
3108Z42-02 3108Z42-03	3108Z60-02 3108Z60-03	10-3 Solid (Brown, Yellow, Gray)	8	250	1000	178	0.601
3109Z42-03	3109Z60-03	10-4 Solid (Brown, Orange, Yellow, Gray)	8	250	1000	242	0.651
		ect to normal manufacturing tolerances.	0	250	1000	242	0.031

**USE WITH AN MCI-A LISTED CONNECTOR.** 

<sup>\*</sup> Special Order, subject to lead times and minimum order quantities.

# MC-Quik® Lite Aluminum Armored Cable (Stranded)

# Type MCI-A Cables (120/208V & 277/480V) Technical Specifications

#### Armor

Interlocked Aluminum Strip

#### Conductors

Stranded Copper

### **Conductor Insulation**

Type THHN with Protective Polypropylene Covering on Each Insulated Conductor (No Assembly Tape)

### **Maximum Temperature Rating**

90°C (Dry)

#### Grounding

Combined Armor and Full-Sized Aluminum Ground/Bond Conductor NEC® 250.118(10)(b)

#### **Neutral Conductor**

White 120/208V Gray 277/480V

### **Maximum Voltage Rating**

600V



### **References & Ratings**

- UL 1569, UL 83, UL 1479, UL 1581, UL 2556, File Reference E80042
- Federal spec A-A-59544 (formerly J-C-30B)
- NEC® 330, 300.22(C), 230.43, 250.118, 392, 396, 501, 502, 503, 530, 518, 520, 645, 690.31(E)
- Meets all OSHA and HUD requirements
- May be surface mounted, fished and/or embedded in plaster
- UL Classified 1, 2, and 3 hour through (Fire) penetration product, R14141
- NEC® 300.22(C) Environmental Air Handling Spaces
- Cable Tray Rated, install per NEC<sup>®</sup>
- U.S. Patent No. 8,088,997 B2
- Made in USA of US and/or imported materials

Produ	ct Code	Trade Size	Bare Alum. Bonding/	Leng	th (ft)	Approx. Weight/	Approx Armor Nom. O.D.
250' Coil	1000' Reel	AWG	Bond Cond. AWG	Coil	Reel	1,000ft (lbs)	(in)
MC-Quik® Lite (	Cable	'					
120/208V Stran	ded						
3158Z42-00	3158Z60-00	12-2 Stranded (Black, White)	10	250	1000	94	0.482
3158Z42-04	3158Z60-04	12-2 Stranded (Red, White)	10	250	1000	94	0.482
3158Z42-05	3158Z60-05	12-2 Stranded (Blue, White)	10	250	1000	94	0.482
3159Z42-00	3159Z60-00	12-3 Stranded (Black, Red, White)	10	250	1000	126	0.523
3160Z42-00	3160Z60-00	12-4 Stranded (Black, Red, Blue, White)	10	250	1000	158	0.585
3161Z42-00	3161Z60-00	10-2 Stranded (Black, White)	8	250	1000	151	0.552
3162Z42-00	3162Z60-00	10-3 Stranded (Black, Red, White)	8	250	1000	202	0.625
3163Z42-00	3163Z60-00	10-4 Stranded (Black, Red, Blue, White)	8	250	1000	261	0.680
277/480V Stran	ded						
3158Z42-01	3158Z60-01	12-2 Stranded (Brown, Gray)	10	250	1000	94	0.482
3158Z42-02	3158Z60-02	12-2 Stranded (Orange, Gray)	10	250	1000	94	0.482
3158Z42-03	3158Z60-03	12-2 Stranded (Yellow, Gray)	10	250	1000	94	0.482
3159Z42-01	3159Z60-01	12-3 Stranded (Brown, Orange, Gray)	10	250	1000	126	0.539
3159Z42-02*	3159Z60-02*	12-3 Stranded (Orange, Yellow, Gray)	10	250	1000	126	0.539
3159Z42-03*	3159Z60-03*	12-3 Stranded (Brown, Yellow, Gray)	10	250	1000	126	0.539
3160Z42-01	3160Z60-01	12-4 Stranded (Brown, Orange, Yellow, Gray)	10	250	1000	158	0.585
3161Z42-01	3161Z60-01	10-2 Stranded (Brown, Gray)	8	250	1000	151	0.552
3162Z42-01	3162Z60-01	10-3 Stranded (Brown, Orange, Gray)	8	250	1000	202	0.625
3163Z42-01	3163Z60-01	10-4 Stranded (Brown, Orange, Yellow, Gray)	8	250	1000	260	0.680

NOTE: All dimensions and weights are subject to normal manufacturing tolerances.

\* Special Order, subject to lead times and minimum order quantities.

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# MC-Stat® & MC-Stat® Lite Cable

# **Type MCI-A Cables (120/208V Colors & 277/480V Colors) Technical Specifications Healthcare Cables**

Interlocked Galvanized Steel Strip or Interlocked Aluminum Strip (Light Green Striped) **Conductors** 

### Solid or Stranded Copper

#### **Conductor Insulation**

Type THHN with Protective Polypropylene Covering on Each Insulated Conductor (No Assembly Tape)

#### **Maximum Temperature Rating**

90°C (Dry)

#### Grounding

Two Grounding Means - (1) Combined Armor and Full-Sized Aluminum Ground Conductor per NEC® 250.118(10)(b), (2) Full-Sized Green Insulated Copper Grounding Conductor per NEC® 250.118(1)

#### **Neutral Conductor**

White 120/208V Gray 277/480V

### **Maximum Voltage Rating**





#### **References & Ratings**

- UL 1569, 83, 1479, 1581, 2556, File Reference E80042
- Federal spec A-A-59544 (formerly J-C-30B)
- NEC® 330, 300.22(C), 230.43, 250.118, 392, 396, 501, 502, 503, 517, 530, 518, 520, 645, 690.31(E)
- Meets all OSHA and HUD requirements
- May be surface mounted, fished and/or embedded in plaster
- UL Classified 1, 2, and 3 hour through (Fire) penetration product, R14141
- NEC® 300.22(C) Environmental Air Handling Spaces
- Cable Tray Rated, install per NEC®
- U.S. Patent No. 8,088,997 B2, No. 8,278,554 B2
- Made in USA of US and/or imported materials

Product Code		Trade Size	Grounding	Bare Alum. Bonding/	Lengt	h (ft)	Approx. Weight/	Approx Armor
250' Coil MC-Stat® Cable	1000' Reel	AWG	Conductor AWG Color	Bond Cond. AWG.	Coil	Reel	1,000ft (lbs)	Nom. 0.D. (in)
120/208V Solid								
7504-42-00	7504-60-00	12-2 Solid (Black, White)	12-Solid (Green)	10	250	1000	160	0.523
7504-42-04	7504-60-04	12-2 Solid (Red, White)	12-Solid (Green)	10	250	1000	160	0.523
7504-42-05	7504-60-05	12-2 Solid (Blue, White)	12-Solid (Green)	10	250	1000	160	0.523
7505-42-00	7505-60-00	12-3 Solid (Black, Red, White)	12-Solid (Green)	10	250	1000	208	0.565
7505-42-04*	7505-60-04*	12-3 Solid (Red, Blue, White)	12-Solid (Green)	10	250	1000	208	0.565
7505-42-05*	7505-60-05*	12-3 Solid (Black, Blue, White)	12-Solid (Green)	10	250	1000	208	0.565
7506-42-00	7506-60-00	12-4 Solid (Black, Red, Blue, White)	12-Solid (Green)	10	250	1000	263	0.618
7507-42-00	7507-60-00	10-2 Solid (Black, White)	10-Solid (Green)	8	250	1000	240	0.601
7508-42-00	7508-60-00	10-3 Solid (Black, Red, White)	10-Solid (Green)	8	250	1000	310	0.651
7509-42-00	7509-60-00	10-4 Solid (Black, Red, Blue, White)	10-Solid (Green)	8	250	1000	407	0.786
277/480V Solid	7303 00 00	10 1 Solid (Black, Ned, Blac, White)	To Solid (dicell)	, and the second	250	1000	107	0.700
7504-42-01	7504-60-01	12-2 Solid (Brown, Gray)	12-Solid (Green)	10	250	1000	160	0.523
7504-42-02	7504-60-02	12-2 Solid (Orange, Gray)	12-Solid (Green)	10	250	1000	160	0.523
7504-42-03	7504-60-03	12-2 Solid (Yellow, Gray)	12-Solid (Green)	10	250	1000	160	0.523
7504-42-07	7504-60-07	12-2 Solid (Purple, Gray)	12-Solid (Green)	10	250	1000	160	0.523
7505-42-01	7505-60-01	12-3 Solid (Brown, Orange, Gray)	12-Solid (Green)	10	250	1000	208	0.565
7505-42-02*	7505-60-02*	12-3 Solid (Orange, Yellow, Gray)	12-Solid (Green)	10	250	1000	208	0.565
7505-42-03*	7505-60-03*	12-3 Solid (Brown, Yellow, Gray)	12-Solid (Green)	10	250	1000	208	0.565
7506-42-01	7506-60-01	12-4 Solid (Brown, Orange, Yellow, Gray)	12-Solid (Green)	10	250	1000	208	0.565
MC-Stat® Lite Ca		12 1 sond (brown, brange, renow, analy	12 Solid (Green)	10	250	1000	200	0.505
120/208V Solid	ibic				_		_	
5804-42-00	5804-60-00	12-2 Solid (Black, White)	12-Solid (Green)	10	250	1000	122	0.523
5804-42-04	5804-60-04	12-2 Solid (Red, White)	12-Solid (Green)	10	250	1000	122	0.523
5804-42-05	5804-60-05	12-2 Solid (Blue, White)	12-Solid (Green)	10	250	1000	122	0.523
5805-42-00	5805-60-00	12-3 Solid (Black, Red, White)	12-Solid (Green)	10	250	1000	152	0.565
5805-42-04	5805-60-04	12-3 Solid (Red, Blue, White)	12-Solid (Green)	10	250	1000	152	0.565
5805-42-05	5805-60-05	12-3 Solid (Black, Blue, White)	12-Solid (Green)	10	250	1000	152	0.565
5806-42-00	5806-60-00	12-4 Solid (Black, Red, Blue, White)	12-Solid (Green)	10	250	1000	200	0.618
5807-42-00	5807-60-00	10-2 Solid (Black, White)	10-Solid (Green)	8	250	1000	178	0.601
5808-42-00	5808-60-00	10-3 Solid (Black, Red, White)	10-Solid (Green)	8	250	1000	242	0.651
5809-42-00	5809-60-00	10-4 Solid (Black, Red, Blue, White)	10-Solid (Green)	8	250	1000	301	0.786
277/480V Solid		(2.2.2.4)	10 20 10 (0.001)					
5804-42-01	5804-60-01	12-2 Solid (Brown, Gray)	12-Solid (Green)	10	250	1000	122	0.523
5804-42-02	5804-60-02	12-2 Solid (Orange, Gray)	12-Solid (Green)	10	250	1000	122	0.523
5804-42-03	5804-60-03	12-2 Solid (Yellow, Gray)	12-Solid (Green)	10	250	1000	122	0.523
5804-42-07	5804-60-07	12-2 Solid (Purple, Gray)	12-Solid (Green)	10	250	1000	122	0.523
5805-42-01	5805-60-01	12-3 Solid (Brown, Orange, Gray)	12-Solid (Green)	10	250	1000	152	0.565
5806-42-01	5806-60-01	12-4 Solid (Brown, Orange, Yellow, Gray)	12-Solid (Green)	10	250	1000	200	0.618
120/208V Strand			12 23.12 (2.33.1)					
5858-42-00	5858-60-00	12-2 Stranded (Black, White)	12-Stranded (Green)	10	250	1000	127	0.539
5858-42-04*	5858-60-04*	12-2 Stranded (Red, White)	12-Stranded (Green)	10	250	1000	127	0.539
5858-42-05*	5858-60-05*	12-2 Stranded (Blue, White)	12-Stranded (Green)	10	250	1000	127	0.539
5859-42-00	5859-60-00	12-3 Stranded (Black, Red, White)	12-Stranded (Green)	10	250	1000	158	0.565
5859-42-04*	5859-60-04*	12-3 Stranded (Red, Blue, White)	12-Stranded (Green)	10	250	1000	158	0.565
5859-42-05*	5859-60-05*	12-3 Stranded (Black, Blue, White)	12-Stranded (Green)	10	250	1000	158	0.565
5860-42-00	5860-60-00	12-4 Stranded (Black, Red, Blue, White)	12-Stranded (Green)	10	250	1000	210	0.645
277/480V Strand		12 1 Saanaca (Black, Nea, Blac, Wille)	12 Stranaca (Green)	10	230	1000	210	0.045
5858-42-01	5858-60-01	12-2 Stranded (Brown, Gray)	12-Stranded (Green)	10	250	1000	127	0.539

NOTE: All dimensions and weights are subject to normal manufacturing tolerances.

Special Order, subject to lead times and minimum order quantities.

# MC-Stat® Plus Cable & MC-Stat® Plus Lite Cable

## Type MCI-A Cables (120/208V Colors)

## **Technical Specifications Neutral Per Phase Healthcare Cables**

#### Armo

Interlocked Galvanized Steel Strip or Interlocked Aluminum Strip (Light Green Striped)

#### **Conductors**

Solid Copper

#### **Conductor Insulation**

Type THHN with Protective Polypropylene Covering on Each Insulated Conductor (No Assembly Tape)

#### **Maximum Temperature Rating**

90°C (Dry)

#### Grounding

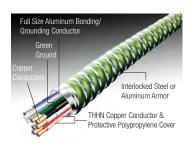
Two Grounding Means - (1) Combined Armor Full-Sized Aluminum Ground Conductor per NEC® 250.118(10)(b), (2) Full-Sized Green Insulated Copper Grounding Conductor per NEC® 250.118(1)

#### **Neutral Conductors**

White 120/208V

### **Maximum Voltage Rating**

600V



#### **References & Ratings**

- UL 1569, 83, 1479, 1581, 2556, File Reference E80042
- Federal spec A-A-59544 (formerly J-C-30B)
- NEC® 210.4(B), 330, 300.22(C), 230.43, 250.118, 392, 396, 503, 530, 517, 518, 530, 645
- Meets all OSHA and HUD requirements
- May be surface mounted, fished and/or embedded in plaster
- UL Classified 1, 2, and 3 hour through (Fire) penetration product, R14141
- NEC® 300.22(C) Environmental Air Handling Spaces
- Cable Tray Rated, install per NEC®
- U.S. Patent No. 8,088,997 B2
- Made in USA of US and/or imported materials

Product Code 1000' Reel	Phase Conductor AWG	Neutral Conductor AWG	Insulated Grounding Wire AWG	Bare Alum. Bonding/Bond Cond. AWG	Approx. Weight/ 1,000ft (lbs)	Approx Armor Nom. O.D. (in)
MC-Stat® Plu	us Steel Cable					
120/208V Soli	d					
7004-60-00	12-2 Solid (Black, Red)	12-2 (White with Black Text, White with Red Text)	12-1 Solid (Green)	10-1	263	0.618
7005-60-00	12-3 Solid (Black, Red, Blue)	12-3 (White with Black Stripe & Text, White with Red Stripe & Text, White with Blue Stripe & Text)	12-1 Solid (Green)	10-1	327	0.663
7007-60-00	10-2 Solid (Black Red)	10-2 (White with Black Stripe & Text, White with Red Stripe & Text)	10-1 Solid (Green)	8-1	407	0.786
7008-60-00	10-3 Solid (Black, Red, Blue)	10-3 (White with Black Stripe & Text, White with Red Stripe & Text, White with Blue Stripe & Text)	10-1 Solid (Green)	8-1	540	0.893
MC-Stat® Lit	e Plus Aluminum Cable	1				
120/208V Soli	d					
7304-60-00	12-2 Solid (Black, Red)	12-2 (White with Black Stripe & Text, White with Red Stripe & Text)	12-1 Solid (Green)	10-1	200	0.618
7305-60-00	12-3 Solid (Black, Red, Blue)	12-3 (White with Black Stripe & Text, White with Red Stripe & Text, White with Blue Text)	12-1 Solid (Green)	10-1	258	0.663
7307-60-00	10-2 Solid (Black, Red)	10-2 (White with Black Stripe & Text, White with Red Stripe & Text)	10-1 Solid (Green)	8-1	302	0.786
7308-60-00	10-3 Solid (Black, Red, Blue)	10-3 (White with Black Stripe & Text, White with Red Stripe & Text, White with Blue Stripe & Text)	10-1 Solid (Green)	8-1	392	0.893

NOTE: All dimensions and weights are subject to normal manufacturing tolerances. Other conductor colors available by special order.

Nylon Thermoplastic

# **MC-Plus® Neutral Per Phase Cable**

# Type MC Steel (120/208V & 277/480V) Technical Specifications

#### Armor

Interlocked Galvanized Steel Strip Color-Coded White Armor with ColorSpec® ID

Solid or Stranded Copper

#### **Conductor Insulation**

THHN/THWN

### **Assembly Covering**

Polypropylene Tape

#### **Maximum Temperature Rating**

90°C (Dry)

### Grounding

Insulated Green Copper Grounding Conductor

### **Neutral Conductor - Identified to Corresponding Phase Conductor**

White 120/208V Gray 277/480V

### **Maximum Voltage Rating**

600V





### **References & Ratings**

- UL 83, 1479, 1569, 1581, 2556, File Reference E80042
- NEC® 210.4(B), 230.43, 300.22(C), 330, 392, 396.10(A), 645
- Federal Specification A-A-59544 (formerly J-C-30B)
- Meets all applicable OSHA and HUD Requirements
- UL Classified 1, 2, and 3 hour through (Fire) penetration product, R14141

Copper Groundin

Copper Conductors

Conductor

- Environmental Air-Handling Space Installation per NEC® 300.22(C)
- Made in USA of US and/or imported materials
- Cable tray rated, install per NEC®
- U.S. Patent No. 8,278,554 B2

Product	Code No.	Phase Conductor	Neutral Conductor	Grounding	Approx. Weight/	Approx. Armor O.D.
250' Coil	1000' Reel	AWG	AWG	Conductor AWG	1,000ft (lbs)	(in)
MC-Plus®Neutral	per Phase Cable			'		
Steel Solid						
3904-42-00	3904-60-00	12-2 (Black, Red)	12-2 (2) White	12-1 (Green)	233	0.586
3904-42-01	3904-60-01	12-2 (Brown, Orange)	12-2 (2) Gray	12-1 (Green)	233	0.586
3904-42-02*	3904-60-02*	12-2 (Orange, Yellow)	12-2 (2) Gray	12-1 (Green)	233	0.586
3904-42-03*	3904-60-03*	12-2 (Brown, Yellow)	12-2 (2) Gray	12-1 (Green)	233	0.586
3904-42-04	3904-60-04	12-2 (Red, Blue)	12-2 (2) White	12-1 (Green)	233	0.586
3904-42-05	3904-60-05	12-2 (Black, Blue)	12-2 (2) White	12-1 (Green)	233	0.586
3905-42-00	3905-60-00	12-3 (Black, Red, Blue)	12-3 (3) White	12-1 (Green)	306	0.620
3905-42-01	3905-60-01	12-3 (Brown, Orange, Yellow)	12-3 (3) Gray	12-1 (Green)	306	0.620
3906-42-00	3906-60-00	12-4 (Black, Black, Red, Red)	12-4 (4) White	12-1 (Green)	363	0.701
3907-42-00	3907-60-00	10-2 (Black, Red)	10-2 (2) White	10-1 (Green)	326	0.667
3907-42-01	3907-60-01	10-2 (Brown, Orange)	10-2 (2) Gray	10-1 (Green)	326	0.667
3908-42-00	3908-60-00	10-3 (Black, Red, Blue)	10-3 (3) White	10-1 (Green)	433	0.710
3908-42-01	3908-60-01	10-3 (Brown, Orange, Yellow)	10-3 (3) Gray	10-1 (Green)	433	0.710
3909-42-00	3909-60-00	10-4 (Black, Black, Red, Red)	10-4 (4) White	10-1 (Green)	570	0.856
3913-42-00*	3913-60-00*	12-6 (2)(Black), (2)(Blue), (2)(Red)	12-6 (6) White	12-1 (Green)	530	0.847
3914-42-00	3914-60-00	10-6 (2)(Black), (2)(Blue), (2)(Red)	10-6 (6) White	10-1 (Green)	761	0.979

NOTE: All dimensions and weights are subject to normal manufacturing tolerances.

* Speci	al order,	subject	to lead	times	and	minimums

Two Wire	Phase Colors	Neutrals
00	Black, Red	2 Whites
-01	Brown, Orange	2 Grays
-02	Orange, Yellow	2 Grays
-03	Brown, Yellow	2 Grays
-04	Red, Blue	2 Whites
-05	Black, Blue	2 Whites
Three Wire	Phase Colors	Neutrals
00	Black, Red, Blue	3 Whites
-01	Brown, Orange, Yellow	3 Grays
Four Wire	Phase Colors	Neutrals
-00	2 Blacks, 2 Red	4 Whites
Six Wire	Phase Colors	Neutrals
-00	2 Blacks, 2 Blues, 2 Reds	6 Whites

# MC-Plus® Lite Neutral Per Phase Cable

## Type MC Aluminum (120/208V & 277/480V) Technical Specifications

#### Armor

Interlocked Aluminum Strip

#### **Conductors**

Solid or Stranded Copper

### **Conductor Insulation**

THHN/THWN

### **Assembly Covering**

Polypropylene Tape

#### **Maximum Temperature Rating**

90°C (Dry)

### Grounding

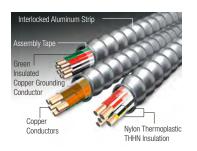
Insulated Green Copper Grounding Conductor

### **Neutral Conductor - Identified to Corresponding Phase Conductor**

White 120/208V Gray 277/480V

### **Maximum Voltage Rating**

600V



### **References & Ratings**

- UL 83, 1479, 1569, 1581, 2556, File Reference E80042
- NEC® 210.4(B), 230.43, 300.22(C), 330, 392, 396.10(A), 645
- Federal Specification A-A-59544 (formerly J-C-30B)
- Meets all applicable OSHA and HUD Requirements
- UL Classified 1, 2, and 3 hour through (Fire) penetration product, R14141
- Environmental Air-Handling Space Installation per NEC® 300.22(C)
- Aluminum armored cables are RoHS Compliant
- Made in USA of US and/or imported materials
- Cable tray rated, install per NEC®

Product	Code No.	Phase Conductor	Neutral Conductor	Grounding	Approx. Weight/	Approx. Armor O.D.	
250' Coil	1000' Reel	AWG	AWG Conductor AWG		1,000ft (lbs)	(in)	
MC-Plus® Lite Neu	ıtral per Phase Cal	ole - Aluminum					
Aluminum Strand	ded						
3658-42-00	3658-60-00	12-2 (Black, Red)	12-2 (2) White	12-1 (Green)	169	0.613	
3658-42-01	3658-60-01	12-2 (Brown, Orange)	12-2 (2) White	12-1 (Green)	169	0.613	
3659-42-00	3659-60-00	12-3 (Black, Red, Blue)	12-3 (3) White	12-1 (Green)	241	0.613	
3659-42-01	3659-60-01	12-3 (Brown, Orange, Yellow)	12-3 (3) Gray	12-1 (Green)	241	0.613	
3661-42-00	3661-60-00	10-2 (Black, Red)	10-2 (2) White	10-1 (Green)	255	0.704	
3661-42-01	3661-60-01	10-2 (Brown, Orange)	10-2 (2) Gray	10-1 (Green)	255	0.704	
3662-42-00	3662-60-00	10-3 (Black, Red, Blue)	10-3 (3) White	10-1 (Green)	347	0.805	
3662-42-01	3662-60-01	10-3 (Brown, Orange, Yellow)	10-3 (3) Gray	10-1 (Green)	347	0.805	
3663-42-00	3663-60-00	10-4 (Black, Black, Red, Red)	10-4 (4) White	10-1 (Green)	442	0.911	

NOTE: All dimensions and weights are subject to normal manufacturing tolerances.

Product C	ode No.	Phase Conductor	Neutral Conductor	Grounding	Approx. Weight/	Approx. Armor O.D. (in)	
250' Coil	1000' Reel	AWG	AWG	Conductor AWG	1,000ft (lbs)		
MC-Plus® Lite Neu	tral per Phase Cab	le - Aluminum					
Aluminum Solid							
3604-42-00	3604-60-00	12-2 (Black, Red)	12-2 (2) White	12-1 (Green)	162	0.586	
3604-42-01	3604-60-01	12-2 (Brown, Orange)	12-2 (2) White	12-1 (Green)	162	0.586	
3605-42-00	3605-60-00	12-3 (Black, Red, Blue)	12-3 (3) White	12-1 (Green)	214	0.623	
3605-42-01	3605-60-01	12-3 (Brown, Orange, Yellow)	12-3 (3) Gray	12-1 (Green)	214	0.623	

Two Wire	Phase Colors	Neutrals
00	Black, Red	2 Whites
-01	Brown, Orange	2 Grays
-02	Orange, Yellow	2 Grays
-03	Brown, Yellow	2 Grays
-04	Red, Blue	2 Whites
-05	Black, Blue	2 Whites
Three Wire	Phase Colors	Neutrals
-00	Black, Red, Blue	3 Whites
-01	Brown, Orange, Yellow	3 Grays
Four Wire	Phase Colors	Neutrals
-00	2 Blacks, 2 Red	4 Whites
Six Wire	Phase Colors	Neutrals
-00	2 Blacks, 2 Blues, 2 Reds	6 Whites

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# Super Neutral Cable®/Neutral Per Phase or Oversized Neutral Type MC Technical Specifications

### Armor

Interlocked Galvanized Steel Strip\* (Painted White)

#### Conductors

Solid, Exception: 8 AWG and Larger are Stranded

#### **Conductor Insulation**

THHN/THWN

### **Assembly Covering**

Polypropylene Tape

#### **Maximum Temperature Rating**

90°C (Dry)

### Grounding

One or More Grounding Conductors Insulated Green, See Chart Below

#### **Neutral Conductor**

Neutral per Phase or Oversized Neutral Configurations, White/White with Phase Stripe

### **Maximum Voltage Rating**

600V



### **References & Ratings**

- UL 83, 1479, 1569, 1581, 2556, File Reference E80042
- NEC® 230.43, 300.22(C), 392, 396.10(A), 330, 501, 502, 503, 530, 504, 505, 645
- Federal Specification A-A-59544 (formerly J-C-30B)
- Cable Tray Rated, install per NEC®
- UL Classified 1, 2, and 3 hour through (Fire) penetration product, R14141
- Environmental Air Handling Spaces per NEC® 300.22(C)
- Conductors must be derated per NEC® Table 310.15(B)(3)(a)
- Made in USA of US and/or imported materials

	Produc	t Code		Phase	Neutral	Grounding	Approx. Weight/	Approx. Armor O.D.
250' Coil	500' Reel	750' Reel	1000' Reel	Conductor AWG	Conductor AWG	Conductor AWG	1,000ft (lbs)	(In)
Super Neutral C	able®/Neutral per	Phase or Oversiz	zed Neutral					
Oversize Neutral	l Design							
2908-42-00	2908-45-00	2908-47-00	2908-60-00	12-1 Solid(a)	10-1 Solid(f)	12-1 Solid(k)	287	0.541
2909-42-00	2909-45-00	2909-47-00	2909-60-00	12-2 Solid(b)	10-1 Solid(f)	12-1 Solid(k)	232	0.622
2910-42-00	2910-45-00	2910-47-00	2910-60-00	12-3 Solid(c)	10-1 Solid(f)	12-1 Solid(k)	252	0.605
2907-42-00	2907-45-00	2907-47-00	2907-60-00	12-3 Solid(c)	10-1 Solid(f)	12-2 Solid(I)	286	0.640
2905-42-00**	2905-45-00**	2905-47-00**	2905-60-00**	12-3 Solid(c)	8-1 Stranded(f)	12-1 Solid(k)	289	0.645
2918-42-00	2918-45-00	2918-47-00	2918-60-00	12-4 Solid(e)	10-2 Solid(g)	12-2 Solid(I)	398	0.735
2913-42-00	2913-45-00	2913-47-00	2913-60-00	10-3 Solid(c)	6-1 Stranded(f)	10-1 Solid(k)	420	0.740
2970-42-00	2970-45-00	2970-47-00	2970-60-00	10-4 Solid(e)	8-2 Stranded(g)	10-2 Solid(I)	628	0.870
Neutral per Phas	se Design							
2916-42-00	2916-45-00	2916-47-00	2916-60-00	12-2 Solid(b)	12-2 Solid(h)	12-2 Solid(l)	282	0.620
2911-42-00	2911-45-00	2911-47-00	2911-60-00	12-3 Solid(c)	12-3 Solid(i)	12-2 Solid(I)	344	0.659
2960-42-00	2960-45-00	2960-47-00	2960-60-00	12-4 Solid(d)	12-3 Solid(j)	12-2 Solid(I)	380	0.698
2965-42-00	2965-45-00	2965-47-00	2965-60-00	10-2 Solid(b)	10-2 Solid(h)	10-2 Solid(I)	436	0.711
2912-42-00	2912-45-00	2912-47-00	2912-60-00	10-3 Solid(c)	10-3 Solid(i)	10-2 Solid(I)	510	0.808

NOTE: All dimensions and weights are subject to normal manufacturing tolerances.

Super Neutral Cables are also available with application-specific combinations of circuit, neutral and grounding conductors.

- (a) Black
- (b) Black/Red
- (c) Black/Red/Blue
- (d) Black/Red/Pink/Tan
- (e) Black/Red/Blue/Pink (f) White
- (g) White/White with Black stripe
- (h) White with Black stripe/White with Red stripe
- (i) White with Black stripe/White with Red stripe/White with Blue stripe
- (j) White/White with Pink stripe/White with Tan stripe
- (k) Green
- (I) Green/Green with Yellow stripe

<sup>\*</sup> Aluminum available by special order and subject to lead times and minimum quantities.

<sup>\*\*</sup>Special Order, subject to lead times and minimum order quantities.

# Parking Deck/Lot Cable™

## Type MC Jacketed Parking Deck/Lot Cable

#### **Armor & Jacket**

Interlocked Galvanized Steel Strip with Gray PVC Jacket. Other Jacket Colors Available by Special Order

### **Conductors**

Solid or Stranded Copper

### **Conductor Insulation**

THHN/THWN

#### **Assembly Covering**

Polypropylene Tape

### **Maximum Temperature Rating**

90°C (Dry); 75°C (Wet)

#### Grounding

Insulated Green Copper Grounding Conductor

### **Neutral Conductor**

White 120/208V Gray 277/480V

#### **Maximum Voltage Rating**

600V



### **References & Ratings**

- UL 83, 1479, 1569, 1581, 2556, File Reference E80042
- NEC® 230.43, 300.5, 392, 396.10(A), 330, 501, 502, 503, 530, 504, 505, 511.7, 513.7(A), 514.7, 515.7(A), 516.7(A), 680.21(A)
- Federal Specification A-A-59544 (formerly J-C-30B)
- UL listed for -40°C low temperature
- UL 1569 70,000 BTU and FT 4/ Vertical Tray Flame Tests IEEE 1203
- UL listed for Cable Tray use
- UL listed for Direct Burial including Concrete Encasement & wet locations
- UL listed Sunlight Resistant
- UL listed Oil Resistant II
- Hazardous locations up to Class I & II, Div. 2 and Class III, Div. 1 & 2 (NEC<sup>®</sup> Articles 501, 502, 503, 530)
- Cable tray rated, install per NEC®
- Wet locations per NEC® 330.10(11)(C)
- Made in USA of US and/or imported materials

Produ	ct Code	Trade Size	Grounding	Lengt	h (ft)	Approx. Weight/	Approx. Armor O.D.	Approx. Over Jacket O.D.
Coil	Reel	Traue Size	Conductor AWG	Coil	Reel	1,000ft (lbs)	(in)	(In)
Parking Deck	/Lot Cable							
120/208V								
2304-42-00	2304-60-00	12-2 Solid (Black, White)	12 Solid (Green)	250'	1000'	241	0.514	0.614
2305-42-00	2305-60-00	12-3 Solid (Black, Red, White)	12 Solid (Green)	250'	1000'	278	0.547	0.647
2306-42-00	2306-60-00	12-4 Solid (Black, Blue, Red, White)	12 Solid (Green)	250'	1000'	318	0.583	0.683
2307-42-00	2307-60-00	10-2 Solid (Black, White)	10 Solid (Green)	250'	1000'	310	0.579	0.679
2308-42-00	2308-60-00	10-3 Solid (Black, Red, White)	10 Solid (Green)	250'	1000'	365	0.619	0.719
2309-42-00	2309-60-00	10-4 Solid (Black, Blue, Red, White)	10 Solid (Green)	250'	1000'	422	0.664	0.764
2316-99-00	2316-99-00	8-3 Stranded (Black, Red, White)	10 Solid (Green)	††	††	550	0.767	0.867
2320-99-00	2320-99-00	6-3 Stranded (Black, Red, White)	8 Solid (Green)	††	††	745	0.855	0.965
277/480V								
2304-42-01	2304-60-01	12-2 Solid (Brown, Gray)	12 Solid (Green)	250'	1000'	241	0.514	0.614
2305-42-01	2305-60-01	12-3 Solid (Brown, Orange, Gray)	12 Solid (Green)	250'	1000'	278	0.547	0.647
2306-42-01	2306-60-01	12-4 Solid (Brown, Orange, Yellow, Gray)	12 Solid (Green)	250'	1000'	318	0.583	0.683
2307-42-01	2307-60-01	10-2 Solid (Brown, Gray)	10 Solid (Green)	250'	1000'	310	0.579	0.679
2308-42-01	2308-60-01	10-3 Solid (Brown, Orange, Gray)	10 Solid (Green)	250'	1000'	365	0.619	0.719
2309-42-01	2309-60-01	10-4 Solid (Brown, Orange, Yellow, Gray)	10 Solid (Green)	250'	1000'	422	0.664	0.764

NOTE: All dimensions and weights are subject to normal manufacturing tolerances

AFC-595, AFC-596, AFC-895 fittings may be used with this product.

Non-stock items require lead time and minimum quantity order.

†† - Cut to length

# **Connectors**

Catalog Number	Product Code	Thread Size (in)	Unit Quantity	Standard Package	WEIGHT/C POUNDS	Dimension A	Dimension B	Dimension C
AFC595-U	0124-15-00	½" Connector	15	60	11.7	1 3/4"	17/32"	1 7/32"
AFC595-I	0125-15-00	½" Insulated Connector	15	60	11.7	1 3/4"	17/32"	1 7/32"
AFC596-U	0126-15-00	½" Connector	15	60	16.5	1 3/4"	17/32"	1 %2″
AFC596-I	0127-15-00	½" Insulated Connector	15	60	16.5	1 3/4"	17/32"	1 %32"

Note: 90° Parking Deck/Lot Cable connectors: 895U uninsulated throat and 895I insulated throat available upon request. All dimensions and weights are subject to normal manufacturing tolerances.

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# **Home Run Cable®**

# **Type MC Technical Specifications**

#### Armor

Interlocked Galvanized Steel Strip\*\*

### Conductors

Solid Copper

### **Conductor Insulation**

THHN/THWN

#### **Assembly Covering**

Polypropylene Tape

### **Maximum Temperature Rating**

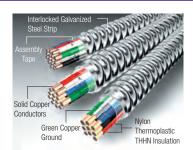
90°C (Dry)

#### Grounding

Insulated Green Grounding Conductor (Additional Grounding Conductors Optional\*)

### **Maximum Voltage Rating**

600V



- UL 83, 1479, 1569, 1581, 2556, File Reference E80042
- NEC® 230.43, 300.22(C), 392, 396, 330, 501, 502, 503, 530, 504, 505, 645
- Federal Specification A-A-59544 (formerly J-C-30B)
- Cable Tray Rated, install per NEC®
- UL Classified 1, 2, and 3 hour through (Fire) penetration product, R14141
- Environmental Air-Handling Space Installation per NEC® 300.22(C)
- Conductors must be derated per NEC® Table 310.15(B)(3)(a)
- Made in USA of US and/or imported materials

Product Code	Trade Size	Grounding	Length (ft)	Approx. Weight/	Approx. Armor O.D.
Reel		Conductor AWG	Reel	1,000ft (lbs)	(In)
Home Run Cable®					
120/208V Solid					
1901-45-00	12-6 Solid	12 Solid (Green)	500	292	0.623
1901-60-00	12-6 Solid	12 Solid (Green)	1000	292	0.623
1902-45-00	12-8 Solid	12 Solid (Green)	500	386	0.698
1902-60-00	12-8 Solid	12 Solid (Green)	1000	386	0.698
1911-45-00	10-6 Solid	10 Solid (Green)	500	415	0.713
1911-60-00	10-6 Solid	10 Solid (Green)	1000	415	0.713
1905-45-00	10-8 Solid	10 Solid (Green)	500	565	0.856
1905-60-00	10-8 Solid	10 Solid (Green)	1000	565	0.856
1927-99-00*	10-12 Solid*	10 Solid (Green)	††	761	0.979
1928-99-00*	10-16 Solid*	10 Solid (Green)	††	1006	1.071

 $\label{eq:NOTE:All dimensions} \mbox{ and weights are subject to normal manufacturing tolerances}$ 

Non-stock items require lead time and minimum quantity order.

### STOCKING SIZES & COLOR CODES

Conductors	120/208V Colors
6	Black, Black/Silver, Red, Red/Silver, White, White/Silver
8	Black, Black/Silver, Red, Red/Silver, Blue, Blue/Silver, White, White/Silver
12	3 Black, 3 Red, 3 Blue, 3 White; each color numbered 1-3
16	4 Black, 4 Red, 4 Blue, 4 White; each color numbered 1-4

## **Metal Clad Cable Derating Example**

# 90°C RATED ARMORED CABLE 12 AWG WITH 4 COPPER CONDUCTORS.

- 1) Find conductor ampacity in NEC® Table 310.15(B)(16) 12AWG, 90°C = 30 amperes
- 2) Find adjustment factor in NEC® Article 310.15(B)(3)(a) 30 x .80 = 24 amperes

NEC® is a registered trademark of the National Fire Protection Association

<sup>\*\*</sup>Aluminum available by special order and subject to lead times and minimum quantities.

<sup>\*</sup> Special order, subject to lead times and minimum quantities.

<sup>††</sup> Cut to order.

# Fire Alarm® Control Cable – Type MC – Dual Rated Type MC/FPLP

## **Plenum Rated Technical Specifications**

Interlocked Galvanized Steel Strip (Painted Red)

### Conductors

Solid Copper

#### **Conductor Insulation**

TFN 18 & 16 AWG and/or THHN 14 & 12 AWG

Polyester Assembly Tape; Twisted Shielded: Laminated Aluminum/Mylar® Shield with Tinned Copper Drain Wire

### **Maximum Temperature Rating**

FPLP: 105°C (Dry) MC: 90°C (Dry)

### Grounding

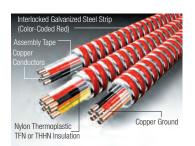
One or More Grounding Conductors May Be Bare or Insulated Green, See Chart Below

### **Neutral Conductor**

White (Where Applicable)

### **Maximum Voltage Rating**

300V (FPLP) 600V (MC)



### **References & Ratings**

- UL 66, 83, 1424, 1479, 1569, 1581, 2556, File Reference E80042
   NEC® 300.22(C), 392, 330, 430.2, 501, 502, 503, 530, 504, 505, 518, 530, 645, 725, 760, 760.154(A)
- Cable Tray Rated, install per NEC®
- Federal Specification A-A-59544 (formerly J-C-30B)
- UL Classified 1, 2, and 3 hour through (Fire) penetration product, R14141
- NFPA 262 (formerly UL 910) Plenum Rated Type FPLP
- Made in USA of US and/or imported materials

Produ	ct Code		Grounding	Approx. Weight/	Approx. Armor O.D	
250' Coil	1000' Reel	Trade Size	Conductor AWG	1,000ft (lbs)	(In)	
Solid TFN						
1801R42-00	1801R60-00	18-2 Solid (Black, White)	18 bare	110	0.470	
1803R42-00	1803R60-00	18-4 Solid (Black, White, Red, Blue)	18 bare	130	0.430	
1805R42-00	1805R60-00	18-6 Solid (Black, White, Red, Blue, Yellow, Orange)	18 bare	170	0.490	
1810R42-00	1810R60-00	16-2 Solid (Black, White)	16 bare	120	0.470	
1813R42-00	1813R60-00	16-4 Solid (Black, White, Red, Blue)	16 bare	147	0.491	
Solid THHN						
1834R42-00	1834R60-00	14-2 Solid (Black, White)	14 Solid (Green)	142	0.471	
1837R42-00	1837R60-00	14-4 Solid (Black, White, Red, Blue)	14 Solid (Green)	192	0.529	
1835R42-00	1835R60-00	12-2 Solid (Black, White)	12 Solid (Green)	177	0.514	
1840R42-00	1840R60-00	12-4 Solid (Black, White, Red, Blue)	12 Solid (Green)	249	0.584	
Twisted Shiel	ded Pairs					
1895R42-05	1895R60-05	16-2 Solid (1 TSP) (Blue, White) †	16 Solid (Green)	147	0.526	
1895R42-06	1895R60-06	16-2 Solid (1 TSP) (Black, Red) †	16 Solid (Green)	147	0.526	
4901R42-00	4901R60-00	16-2 Solid (1 TSP) (Black, White) & un-shielded 12-2 Solid (Black, Red) †	12 Solid (Green)	236	0.606	
1828R42-00	1828R60-00	14-2 Solid (1 TSP) (Black, White) †	14 Solid (Green)	217	0.565	
1828R42-05	1828R60-05	14-2 Solid (1 TSP) (Blue, White) †	14 Solid (Green)	217	0.565	
1881R42-00	1881R60-00	14-4 Solid (2 TSP) (Black, Red) (Blue, White) †	14 Solid (Green)	255	0.690	
Specialty Col	ors					
1828R42-05	1828R60-05	14-2 Solid (1TSP) (Blue, White) †	14 Solid (Green)	217	0.565	
1834R42-05	1834R60-05	14-2 Solid (Blue, White)	14 Solid (Green)	142	0.627	
1834R42-06	1834R60-06	14-2 Solid (Black, Red)	14 Solid (Green)	142	0.627	
1834R42-23	1834R60-23	14-2 Solid (Orange, Yellow)	14 Solid (Green)	142	0.627	
1834R42-37	1834R60-37	14-2 Solid (Brown, Purple)	14 Solid (Green)	142	0.627	
1834R42-44	1834R60-44	14-2 Solid (Gray, Gray*)	14 Solid (Green)	142	0.627	
1835R42-05	1835R60-05	12-2 Solid (Blue, White)	12 Solid (Green)	177	0.514	
1837R42-05	1837R60-05	14-4 Solid (Blue, Blue*, White, White*)	14 Solid (Green)	192	0.529	
1837R42-06	1837R60-06	14-4 Solid (Black, Black*, Red, Red*)	14 Solid (Green)	192	0.529	
1895R42-06	1895R60-06	16-2 Solid (1 TSP) (Black, Red) †	16 Solid (Green)	147	0.526	

NOTE: All dimensions and weights are subject to normal manufacturing tolerances.

Mylar is a Registered trademark of DuPont

For the electrical properties of Fire Alarm® Control Cable and twists per foot information, see page 30.

<sup>\*</sup> One conductor insulation has identifying stripe

 $<sup>\</sup>ensuremath{^{\dagger}}$  All drain wires are 18AWG Tinned Copper in TSP construction

# **Fire Alarm® Control Cable Performance Charts**



Conductor Size AWG	XL, Reactance <sup>1</sup>	Rac, Resistance, 75°C²	Z, Effective³ Impedance							
Electrical Properties (ohms to neutral per 1000 feet)										
18	0.047	7.77	6.24							
16	0.043	4.89	3.93							
14	0.042	3.07	2.48							
12	0.04	1.93	1.57							

<sup>1</sup> In Steel Armor

<sup>&</sup>lt;sup>3</sup> Effective Impedance is defined as R cos (Theta) + X sin (Theta) where Theta is the power factor angle of the circuit. Effective impedance values shown in the table above are valid at 80% power factor.

Conductor Size AWG	Twisted Pair <sup>1</sup>	Twisted Shielded Pair²
Mutual Capacitance (pico farads per foot)		
18	30	47.3
16	33.5	54.8
14	36.3	60.7
12	38.8	66.4

<sup>1</sup> In Steel Armor

Inductance (L) to neutral, per 1000 feet is typically 0.0002mH for sizes 18 AWG through 250 kcmil

= 0.1404 Log10(GMD/GMR) x 10-3 Henrys to neutral per 1000 feet]

Size	Total Number of Conductors Including Ground	Conductor Diameter	Length of Lay	Twists per Foot
Twists per Foot				
18	2	0.08	2.4	5
18	3	0.08	2.8	4.3
18	4	0.08	3.2	3.8
18	5	0.08	3.3	3.7
16	2	0.09	2.7	4.4
16	3	0.09	3.2	3.8
16	4	0.09	3.6	3.3
16	5	0.09	3.7	3.3
14	2	0.105	3.15	3.8
14	3	0.105	3.7	3.3
14	4	0.105	4.2	2.9
14	5	0.105	4.3	2.8
12	2	0.125	3.75	3.2
12	3	0.125	4.4	2.7
12	4	0.125	5	2.4
12	5	0.125	5.1	2.4

 $<sup>^{2}</sup>$  To correct for 90°C, multiply by 1.048

<sup>&</sup>lt;sup>2</sup> To correct for 90°C, multiply by 1.048
<sup>3</sup> Effective Impedance is defined as R cos (Theta) + X sin (Theta) where Theta is the power factor angle of the circuit. Effective impedance values shown in the table above are valid at 80% power factor.

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# **Power Limited Fire Alarm Circuit Cable – Type FPLP**

## **Plenum Rated Technical Specifications**

#### Armor

Interlocked Galvanized Steel Strip (Red-Striped)

#### **Conductors**

Solid Copper

#### **Conductor Insulation**

TFN 18 & 16 AWG and/or THHN 14 & 12 AWG

Polyester Assembly Tape; Twisted Shielded: Laminated Aluminum/Mylar® Shield with Tinned Copper Drain Wire

### **Maximum Temperature Rating**

FPLP: 105°C (Dry)

#### **Neutral Conductor**

White (Where Applicable)

### **References & Ratings**

- UL 66, 83, 1424, 1479, 1581, 2556, File Reference E83514
  NEC® 300.22(C), 392, 330, 430.2, 501, 502, 503, 530, 504, 505, 518, 530, 645, 725, 760, 760.154(A)
- Cable Tray Rated, install per NEC®
- Federal Specification A-A-59544 (formerly J-C-30B)
- UL Classified 1, 2, and 3 hour through (Fire) penetration product, R14141
- NFPA 262 (formerly UL 910) Plenum Rated Type FPLP
- Made in USA of US and/or imported materials

Pro	duct Code		Approx. Weight/	Approx. Armor O.D.	
250' Coil	1000' Reel	Trade Size	1,000ft (lbs)	(In)	
Metal Sheathed Type	FPLP Cable				
1850R42-00	1850R60-00	18-2 Solid (1TSP) (Black, White) †	111	0.470	
1827R42-00	1827R60-00	18-2 Solid (1 TSP) (Black, Red) & 14-2 Solid (1 TSP) (Black, White) †	204	0.637	
1860R42-00	1860R60-00	16-2 Solid (1 TSP) (Black, White) †	118	0.470	
1843R42-00	1843R60-00	16-4 Solid (2 TSP) (Black, White) (Red, Blue) †	195	0.627	

NOTE: All dimensions and weights are subject to normal manufacturing tolerances.

Mylar is a Registered trademark of DuPont

For the electrical properties of Fire Alarm® Control Cable and twists per foot information, see page 30.

<sup>\*</sup> One conductor insulation has identifying stripe

<sup>†</sup> All drain wires are 18AWG Tinned Copper in TSP construction

# **MCTUFF® Lightweight Steel Cable**

# Type MC (120/208V Colors) Technical Specifications

### Armor

Interlocked Galvanized Steel Strip (Blue Striped) with ColorSpec® ID

#### Conductor

Solid or Stranded Copper

#### **Conductor Insulation**

THHN/THWN

### **Assembly Covering**

Polypropylene Tape

#### **Maximum Temperature Rating**

90°C (Dry)

#### Grounding

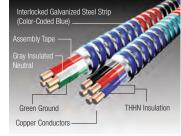
Insulated Green Grounding Conductor

### **Neutral Conductors**

White 120/208V

### **Maximum Voltage Rating**

600V





### **References & Ratings**

- UL 83, 1479, 1569, 1581, 2556, File Reference E80042
- NEC® 230.43, 250.118, 300.22(C), 392, 396, 330, 501, 502, 503, 530, 504, 505, 518, 520, 530, 645
- Federal Specification A-A-59544 (formerly J-C-30B)
- Meets all applicable OSHA and HUD Requirements
- May be surface mounted, fished and/or embedded in plaster
- Cable Tray Rated, install per NEC®
- UL Classified 1, 2, and 3 hour through (Fire) penetration product, R14141
- Environmental Air-Handling Space Installation per NEC® 300.22(C)
- U.S. Patent No. 8,278,554 B2
- Made in USA of US and/or imported materials

Product Code		Trade Size	Grounding	Len	gth (ft)	Approx. Weight/	Approx. Armor 0.1
Coil	Reel	Haue Jize	Conductor AWG	Coil	Reel	1,000ft (lbs)	(in)
	tweight Steel C	able					
1701B42T00	1701B60T00	14-2 Solid (Black, White)	14 Solid (Green)	250	1000	117	0.470
1701B42T00 1702B42T00	1701B60100	14-3 Solid (Black, Red, White)	14 Solid (Green)	250	1000	140	0.470
1702B42T00 1703B42T00	1702B60T00	14-4 Solid (Black, Red, Blue, White)	14 Solid (Green)	250	1000	164	0.460
1703B42T00	1703B60T00	12-2 Solid (Black, White)	12 Solid (Green)	250	1000	141	0.517
1704B42T00	1704B60T00	12-3 Solid (Black, Red, White)	12 Solid (Green)	250	1000	199	0.549
1706B42T00	1706B60T00	12-4 Solid (Black, Red, Blue, White)	12 Solid (Green)	250	1000	232	0.586
1707B42T00	1707B60T00	10-2 Solid (Black, White)	10 Solid (Green)	250	1000	225	0.581
1708B42T00	1708B60T00	10-3 Solid (Black, Red, White)	10 Solid (Green)	250	1000	275	0.622
1709B42T00	1709B60T00	10-4 Solid (Black, Red, Blue, White)	10 Solid (Green)	250	1000	326	0.667
20/208V Strande	ed						
1758B42T00	1758B60T00	12-2 Stranded (Black, White)	12 Stranded (Green)	250	1000	152	0.495
1759B42T00	1759B60T00	12-3 Stranded (Black, Red, White)	12 Stranded (Green)	250	1000	191	0.530
1760B42T00	1760B60T00	12-4 Stranded (Black, Red, Blue, White)	12 Stranded (Green)	250	1000	225	0.565
1761B42T00	1761B60T00	10-2 Stranded (Black, White)	10 Stranded (Green)	250	1000	227	0.560
1762B42T00	1762B60T00	10-3 Stranded (Black, Red, White)	10 Stranded (Green)	250	1000	269	0.600
1763B42T00	1763B60T00	10-4 Stranded (Black, Red, Blue, White)	10 Stranded (Green)	250	1000	319	0.645
20/208V Solid S <sub>l</sub>	pecialty Colors						
1704B42T04	1704B60T04	12-2 Solid (Red, White)	12 Solid (Green)	250	1000	141	0.517
1704B42T05	1704B60T05	12-2 Solid (Blue, White)	12 Solid (Green)	250	1000	141	0.517
1705B42T04	1705B60T04	12-3 Solid (Red, Blue, White)	12 Solid (Green)	250	1000	141	0.517
1705B42T05	1705B60T05	12-3 Solid (Black, Blue, White)	12 Solid (Green)	250	1000	141	0.517
1707B42T04	1707B60T04	10-2 Solid (Red, White)	10 Solid (Green)	250	1000	225	0.581
1707B42T05	1707B60T05	10-2 Solid (Blue, White)	10 Solid (Green)	250	1000	225	0.581
1708B42T04	1708B60T04	10-3 Solid (Red, Blue, White)	10 Solid (Green)	250	1000	275	0.622
1708B42T05	1708B60T05	10-3 Solid (Black, Blue, White)	10 Solid (Green)	250	1000	275	0.622
		to normal manufacturing tolerances.	To Solid (Green)	230	1000	2,5	0.022

NOTE: All dimensions and weights are subject to normal manufacturing tolerances.

# **MC TUFF® Lightweight Steel Cable**

# Type MC (277/480V Colors) Technical Specifications

#### Armor

Interlocked Galvanized Steel Strip (Blue Striped) with ColorSpec® ID

#### Conductor

Solid or Stranded Copper (See Below)

#### **Conductor Insulation**

THHN/THWN

### **Assembly Covering**

Polypropylene Tape

#### **Maximum Temperature Rating**

90°C (Dry)

#### Grounding

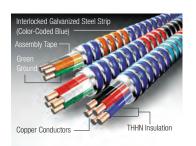
Insulated Green Grounding Conductor

#### **Neutral Conductor**

Gray 277/480V

### **Maximum Voltage Rating**

6001/





### **References & Ratings**

- UL 83, 1479, 1569, 1581, 2556, File Reference E80042
- NEC® 230.43, 250.118, 300.22(C), 392, 396, 330, 501, 502, 503, 530, 504, 505, 518, 520, 530, 645
- Cable Tray Rated, install per NEC®
- Federal Specification A-A-59544 (formerly J-C-30B)
- Meets all applicable OSHA and HUD requirements
- May be surfaced mounted and embedded in plaster
- Environmental Air-Handling Space Installation per NEC® 300.22(C)
- UL Classified 1, 2, and 3 hour through (Fire) penetration product, R14141
- U.S. Patent No. 8,278,554 B2
- Made in USA of US and/or imported materials

Product Code		To be Co.	Grounding	Len	gth (ft)	Approx. Weight/	Approx. Armor O.D
Coil	Reel	Trade Size	Conductor AWG	Coil	Reel	1,000ft (lbs)	(in)
MCTUFF® Ligh	tweight Steel C	able					
277/480V Solid							
1704B42T01	1704B60T01	12-2 Solid (Brown, Gray)	12 Solid (Green)	250	1000	141	0.517
1704B42T02	1704B60T02	12-2 Solid (Orange, Gray)	12 Solid (Green)	250	1000	141	0.517
1704B42T03	1704B60T03	12-2 Solid (Yellow, Gray)	12 Solid (Green)	250	1000	141	0.517
1704B42T07	1704B60T07	12-2 Solid (Purple, Gray)	12 Solid (Green)	250	1000	141	0.517
1705B42T01	1705B60T01	12-3 Solid (Brown, Orange, Gray)	12 Solid (Green)	250	1000	199	0.549
1705B42T02	1705B60T02	12-3 Solid (Orange, Yellow, Gray)	12 Solid (Green)	250	1000	199	0.549
1705B42T03	1705B60T03	12-3 Solid (Brown, Yellow, Gray)	12 Solid (Green)	250	1000	199	0.549
1705B42T07	1705B60T07	12-3 Solid (Brown, Purple, Gray)	12 Solid (Green)	250	1000	199	0.549
1705B42T27	1705B60T27	12-3 Solid (Yellow, Purple, Gray)	12 Solid (Green)	250	1000	199	0.549
1706B42T01	1706B60T01	12-4 Solid (Brown, Orange, Yellow, Gray)	12 Solid (Green)	250	1000	232	0.586
1706B42T07	1706B60T07	12-4 Solid (Brown, Yellow, Purple, Gray)	12 Solid (Green)	250	1000	232	0.586
1707B42T01	1707B60T01	10-2 Solid (Brown, Gray)	10 Solid (Green)	250	1000	225	0.581
1707B42T02	1707B60T02	10-2 Solid (Orange, Gray)	10 Solid (Green)	250	1000	225	0.581
1707B42T03	1707B60T03	10-2 Solid (Yellow, Gray)	10 Solid (Green)	250	1000	225	0.581
1707B42T07	1707B60T07	10-2 Solid (Purple, Gray)	10 Solid (Green)	250	1000	225	0.581
1708B42T01	1708B60T01	10-3 Solid (Brown, Orange, Gray)	10 Solid (Green)	250	1000	275	0.622
1708B42T02	1708B60T02	10-3 Solid (Orange, Yellow, Gray)	10 Solid (Green)	250	1000	275	0.622
1708B42T03	1708B60T03	10-3 Solid (Brown, Yellow, Gray)	10 Solid (Green)	250	1000	275	0.622
1709B42T01	1709B60T01	10-4 Solid (Brown, Orange, Yellow, Gray)	10 Solid (Green)	250	1000	326	0.667
1709B42T07	1709B60T07	10-4 Solid (Brown, Yellow, Purple, Gray)	10 Solid (Green)	250	1000	326	0.667
277/480V Strand	led						
1758B42T01	1758B60T01	12-2 Stranded (Brown, Gray)	12 Stranded (Green)	250	1000	159	0.538
1758B42T02	1758B60T02	12-2 Stranded (Orange, Gray)	12 Stranded (Green)	250	1000	159	0.538
1758B42T03	1758B60T03	12-2 Stranded (Yellow, Gray)	12 Stranded (Green)	250	1000	159	0.538
1759B42T01	1759B60T01	12-3 Stranded (Brown, Orange, Gray)	12 Stranded (Green)	250	1000	210	0.577
1760B42T01	1760B60T01	12-4 Stranded (Brown, Orange, Yellow, Gray)	12 Stranded (Green)	250	1000	246	0.613
1761B42T01	1761B60T01	10-2 Stranded (Brown, Gray)	10 Stranded (Green)	250	1000	237	0.615
1762B42T01	1762B60T01	10-3 Stranded (Brown, Orange, Gray)	10 Stranded (Green)	250	1000	304	0.657
1763B42T01	1763B60T01	10-4 Stranded (Brown, Orange, Yellow, Gray)	10 Stranded (Green)	250	1000	360	0.707

NOTE: All dimensions and weights are subject to normal manufacturing tolerances.

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# **MCTUFF® Barrel**

# Type MC (120/208V Colors & 277/480V Colors) Technical Specifications

#### Armor

Interlocked Galvanized Steel Strip (Blue Striped) with ColorSpec® ID

### **Conductors**

Solid or Stranded Copper

#### **Conductor Insulation**

THHN/THWN

### **Assembly Covering**

Polypropylene Tape

### **Maximum Temperature Rating**

90°C (Dry)

#### Grounding

Insulated Green Grounding Conductor

### **Neutral Conductor**

White 120/208V Gray 277/480V

### **Maximum Voltage Rating**

600V



### **References & Ratings**

- UL 83, 1479, 1569, 1581, 2556, File Reference E80042
- NEC® 230.43, 250.118, 300.22(C), 392, 396, 330, 501, 502, 503, 530, 504, 505, 518, 520, 530, 645
- Cable Tray Rated, install per NEC®
- Federal Specification A-A-59544 (formerly J-C-30B)
- Meets all applicable OSHA and HUD requirements
- May be surfaced mounted and embedded in plaster
- Environmental Air-Handling Space Installation per NEC® 300.22(C)
- UL Classified 1, 2, and 3 hour through (Fire) penetration product, R14141
- U.S. Patent No. 8,278,554 B2
- Made in USA of US and/or imported materials

Part Number	Trade Size	Conductor Colors	Grounding Conductor AWG	Min. Order Quantity	Pallet Quantity	Length (ft)	Approx. Weight Total Barrel Weight (lbs)**	Armor Min. O.D. (in)
MC TUFF® Lig	ghtweight S	teel Cable						
1704B93T00	12-2	(Black, White)	12 Solid (Green)	2500	10000	2500	388	0.495
1704B93T01	12-2	(Brown, Gray)	12 Solid (Green)	2500	10000	2500	388	0.495
1704B93T02*	12-2	(Orange, Gray)	12 Solid (Green)	10000	10000	2500	388	0.495
1704B93T03*	12-2	(Yellow, Gray)	12 Solid (Green)	10000	10000	2500	388	0.495
1705B92T00	12-3	(Black, Red, White)	12 Solid (Green)	2000	8000	2000	392	0.530
1705B92T01	12-3	(Brown, Orange, Gray)	12 Solid (Green)	2000	8000	2000	392	0.530
1705B92T02*	12-3	(Orange, Yellow, Gray)	12 Solid (Green)	8000	8000	2000	392	0.530
1705B92T03*	12-3	(Brown, Yellow, Gray)	12 Solid (Green)	8000	8000	2000	392	0.530
1706B91T00*	12-4	(Black, Red, Blue, White)	12 Solid (Green)	6000	6000	1500	355	0.565
1706B91T01*	12-4	(Brown, Orange, Yellow, Gray)	12 Solid (Green)	6000	6000	1500	355	0.565
1707B91T00*	10-2	(Black, White)	10 Solid (Green)	6000	6000	1500	353	0.560
1707B91T01*	10-2	(Brown, Gray)	10 Solid (Green)	6000	6000	1500	353	0.560
1708B90T00*	10-3	(Black, Red, White)	10 Solid (Green)	4000	4000	1000	288	0.600
1708B90T01*	10-3	(Brown, Orange, Gray)	10 Solid (Green)	4000	4000	1000	288	0.600
1709B90T00*	10-4	(Black, Red, Blue, White)	10 Solid (Green)	4000	4000	1000	333	0.645
1709B90T01*	10-4	(Brown, Orange, Yellow, Gray)	10 Solid (Green)	4000	4000	1000	333	0.645

NOTE: All dimensions and weights are subject to normal manufacturing tolerances.

<sup>\*</sup>Subject to minimums and lead times

<sup>\*\*</sup>Includes weight of barrel

# MC 8 AWG-2 through 2 AWG-4 Steel Armored Cable

# with Interlocked Galvanized Steel Strip Technical Specifications

#### Armor

Interlocked Galvanized Steel Strip

#### **Conductors**

Stranded Copper

### **Conductor Insulation**

THHN/THWN

#### **Assembly Covering**

Polypropylene Tape

#### **Maximum Temperature Rating**

90°C (Dry)

#### Grounding

One Insulated Green Copper Grounding Conductor (Grounds May Be Solid in Certain Sizes)

### **Neutral Conductor**

White 120/208V

### **Maximum Voltage Rating**

600\/



#### **References & Ratings**

- UL 83, 1479, 1569, 1581, 2556, File Reference E80042
- NEC® 230.43, 300.22(C), 330, 392, 396, 501, 502, 503, 504, 505, 518, 520, 530
- Federal Specifications A-A-59544 (formerly J-C30B)
- Meets all applicable OSHA and HUD requirements
- Cable Tray Rated, install per NEC®
- UL Classified 1, 2, and 3 hour through (fire) penetration product, R14141
- Made in USA of US and/or imported materials

Produ	ct Code	Trade Size	Lengt	h (ft)	Ground Conductor AWG	Approx. Weight/	Approx. Armor O.D.
Coil	Reel	Traue 512e	Coil	Reel	Ground Conductor AWG	1,000ft (lbs)	(in)
120/208V Stran	ided						
1715-40-00	1715-45-00	8-2 (Black, White)	200	500	10 Solid (Green)	332	0.672
1716-40-00	1716-45-00	8-3 (Black, Red, White)	200	500	10 Solid (Green)	458	0.767
1717-32-00	1717-45-00	8-4 (Black, Red, Blue, White)	125	500	10 Solid (Green)	532	0.848
1719-32-00	1719-45-00	6-2 (Black, White)	125	500	8 Stranded (Green)	448	0.814
1720-32-00	1720-45-00	6-3 (Black, Red, White)	125	500	8 Stranded (Green)	623	0.945
1721-30-00	1721-45-00	6-4 (Black, Red, Blue, White)	100	500	8 Stranded (Green)	749	0.967
1724-30-00	1724-45-00	4-3 (Black, Red, White)	100	500	8 Stranded (Green)	850	0.985
1725-30-00	1725-45-00	4-4 (Black, Red, Blue, White)	100	500	8 Stranded (Green)	1030	1.084
1728-30-00	1728-45-00	3-3 (Black, Red, White)	100	500	6 Stranded (Green)	997	1.102
1729-30-00	1729-45-00	3-4 (Black, Red, Blue, White)	100	500	6 Stranded (Green)	1205	1.156
1726-30-00	1726-45-00	2-3 (Black, Red, White)	100	500	6 Stranded (Green)	1167	1.161
1727-30-00	1727-45-00	2-4 (Black, Red, Blue, White)	100	500	6 Stranded (Green)	1445	1.221

Note: 277/480V available by special order

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# **MC Lite® Aluminum Armored Cable**

# Type MC (120/208V Colors) Technical Specifications

### **Armor**

Interlocked Aluminum Strip with ColorSpec® ID

### Conductors

Solid or Stranded Copper

### **Conductor Insulation**

THHN/THWN

### **Assembly Covering**

Polypropylene Tape

### **Maximum Temperature Rating**

90°C (Dry)

#### Grounding

Insulated Green Grounding Conductor

#### **Neutral Conductor**

White 120/208V

### **Maximum Voltage Rating**

600V



### **References & Ratings**

- UL 83, 1479, 1569, 1581, 2556, File Reference E80042
- NEC® 230.43, 300.22(C), 392, 396, 330, 501, 502, 503, 530, 504, 505, 518, 520, 530, 645

Green Insulated Copper

Grounding Conductor

THHN/THWN Insulation

- Federal Specification A-A-59544 (formerly J-C-30B)
- Meets all applicable OSHA and HUD Requirements
- May be surface mounted, fished and/or embedded in plaster
- Cable tray rated, install per NEC®
- UL Classified 1, 2, and 3 hour through (Fire) penetration product, R14141
- Environmental Air-Handling Space Installation per NEC® 300.22(C)
- Aluminum armored cables are RoHS Compliant
- U.S. Patent No. 8,278,554 B2
- Made in USA of US and/or imported materials

Product Code No.		Trade Size	Grounding	Grounding Length (ft)		Approx. Weight/	Approx. Armor O.D.
Coil	Reel	Trade Size	Conductor AWG	Coil	Reel	1,000ft (lbs)	(in)
MC Lite® Alumi	num Armored	Cable					
Solid 120/208V Co	olors						
2101S42-00	2101S60-00	14-2 Solid (Black, White)	14 Solid (Green)	250	1000	78	0.474
2102S42-00	2102S60-00	14-3 Solid (Black, Red, White)	14 Solid (Green)	250	1000	100	0.48
2103S42-00	2103S60-00	14-4 Solid (Black, Red, Blue, White)	14 Solid (Green)	250	1000	120	0.51
2104S42-00	2104S60-00	12-2 Solid (Black, White)	12 Solid (Green)	250	1000	106	0.517
2105S42-00	2105S60-00	12-3 Solid (Black, Red, White)	12 Solid (Green)	250	1000	134	0.549
2106S42-00	2106S60-00	12-4 Solid (Black, Red, Blue, White)	12 Solid (Green)	250	1000	162	0.586
Special 120/208V	Colors						
2104S42-04	2104S60-04	12-2 Solid (Red, White)	12 Solid (Green)	250	1000	106	0.517
2104S42-05	2104S60-05	12-2 Solid (Blue, White)	12 Solid (Green)	250	1000	106	0.517
2105S42-04	2105S60-04	12-3 Solid (Red, Blue, White)	12 Solid (Green)	250	1000	134	0.549
2105S42-05	2105S60-05	12-3 Solid (Black, Blue, White)	12 Solid (Green)	250	1000	134	0.549
Stranded Conduct	or						
2158S42-00	2158S60-00	12-2 Stranded (Black, White)	12 Stranded (Green)	250	1000	111	0.538
2159S42-00	2159\$60-00	12-3 Stranded (Black, Red, White)	12 Stranded (Green)	250	1000	140	0.573
2160S42-00	2160S60-00	12-4 Stranded (Black, Red, Blue, White)	12 Stranded (Green)	250	1000	170	0.565

MC Lite® is also available in 8 AWG through 1-4, see page 40.

# MC Lite® Aluminum Armored Cable

# Type MC (277/480V Colors) Technical Specifications

#### Armor

Interlocked Aluminum Strip with ColorSpec® ID

#### **Conductors**

Solid or Stranded Copper

#### **Conductor Insulation**

THHN/THWN

#### **Assembly Covering**

Polypropylene Tape

#### **Maximum Temperature Rating**

90°C (Dry)

#### Grounding

Insulated Green Grounding Conductor

#### **Neutral Conductor**

Gray 277/480V

#### **Maximum Voltage Rating**

600V





#### **References & Ratings**

- UL 83, 1479, 1569, 1581, 2556, File Reference E80042
- NEC® 230.43, 300.22(C), 392, 396, 330, 501, 502, 503, 530, 504, 505, 518, 520, 530, 645
- Federal Specification A-A-59544 (formerly J-C-30B)
- Meets all applicable OSHA and HUD Requirements
- May be surface mounted, fished and/or embedded in plaster
- Cable Tray Rated, install per NEC®
- UL Classified 1, 2, and 3 hour through (Fire) penetration product, R14141
- Environmental Air-Handling Space Installation per NEC® 300.22(C)
- U.S. Patent No. 8,278,554 B2
- Made in USA of US and/or imported materials

Product C	ode No.	Trade Size	Grounding	Leng	th (ft)	Approx. Weight/	Approx. Armor O.D.
Coil	Reel	Irade Size	Conductor AWG	Coil	Reel	1,000ft (lbs)	(in)
Solid 277/408V							
2104S42-01	2104S60-01	12-2 Solid (Brown, Gray)	12 Solid (Green)	250	1000	106	0.517
2104S42-02	2104S60-02	12-2 Solid (Orange, Gray)	12 Solid (Green)	250	1000	106	0.517
2104S42-03	2104S60-03	12-2 Solid (Yellow, Gray)	12 Solid (Green)	250	1000	106	0.517
2104S42-07	2104S60-07	12-2 Solid (Purple, Gray)	12 Solid (Green)	250	1000	106	0.517
2105S42-01	2105S60-01	12-3 Solid (Brown, Orange, Gray)	12 Solid (Green)	250	1000	134	0.549
2105S42-02	2105S60-02	12-3 Solid (Orange, Yellow, Gray)	12 Solid (Green)	250	1000	134	0.549
2105S42-03	2105S60-03	12-3 Solid (Brown, Yellow, Gray)	12 Solid (Green)	250	1000	134	0.549
2105S42-07	2105S60-07	12-3 Solid (Brown, Purple, Gray)	12 Solid (Green)	250	1000	134	0.549
2106S42-01	2106S60-01	12-4 Solid (Brown, Orange, Yellow, Gray)	12 Solid (Green)	250	1000	162	0.586
Stranded 277/408	sv						
2158S42-01	2158S60-01	12-2 Stranded (Brown, Gray)	12 Stranded (Green)	250	1000	111	0.538
2158S42-02	2158S60-02	12-2 Stranded (Orange, Gray)	12 Stranded (Green)	250	1000	111	0.538
2158S42-03	2158S60-03	12-2 Stranded (Yellow, Gray)	12 Stranded (Green)	250	1000	111	0.538
2159S42-01	2159S60-01	12-3 Stranded (Brown, Orange, Gray)	12 Stranded (Green)	250	1000	140	0.573
2160S42-01	2160S60-01	12-4 Stranded (Brown, Orange, Yellow, Gray)	12 Stranded (Green)	250	1000	169	0.613

NOTE: All dimensions and weights are subject to normal manufacturing tolerances. Other conductor colors available by special order

MC Lite® is also available in 8 AWG-2 through 2 AWG-4, see page 40.

800-757-6996

# MC Lite® Metal Clad Aluminum Armored Cable 10 AWG

# Type MC (120/208V Colors & 277/480V Colors) Technical Specifications

#### Armor

Interlocked Aluminum Strip

#### **Conductors**

Solid or Stranded Copper

#### **Conductor Insulation**

THHN/THWN

#### **Assembly Covering**

Polypropylene Tape

#### **Maximum Temperature Rating**

90°C (Dry)

#### Grounding

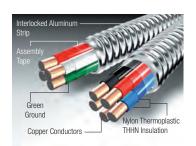
Insulating Green Grounding Conductor

#### **Neutral Conductor**

White 120/208V Gray 277/480V

#### **Maximum Voltage Rating**

600V



#### **References & Ratings**

- UL 83, 1479, 1569, 1581, 2556, File Reference E80042
- NEC® 230.43, 300.22(C), 392, 396, 330, 501, 502, 503, 530, 504, 505, 518, 520, 530, 645
- Federal Specification A-A-59544 (formerly J-C-30B)
- Meets all applicable OSHA and HUD Requirements
- May be surface mounted, fished and/or embedded in plaster
- Cable Tray Rated, install per NEC®
- UL Classified 1, 2, and 3 hour through (Fire) penetration product, R14141
- Environmental Air-Handling Space Installation per NEC® 300.22(C)
- RoHS Compliant
- Made in USA of US and/or imported materials

Product Code		Total Circ	Grounding	Leng	th (ft)	Approx. Weight/	Approx. Armor O.D.
Coil	Reel	Trade Size	Conductor AWG	Coil	Reel	1,000ft (lbs)	(in)
MC Lite® Metal	Clad Aluminu	n Armored Cable					
120/208V Solid							
2107-42-00	2107-60-00	10-2 Solid (Black, White)	10 Solid (Green)	250	1000	155	0.581
2107-42-04	2107-60-04	10-2 Solid (Red, White)	10 Solid (Green)	250	1000	155	0.581
2107-42-05	2107-60-05	10-2 Solid (Blue,White)	10 Solid (Green)	250	1000	155	0.581
2108-42-00	2108-60-00	10-3 Solid (Black, Red, White)	10 Solid (Green)	250	1000	198	0.622
2108-42-04	2108-60-04	10-3 Solid (Red, Blue, White)	10 Solid (Green)	250	1000	198	0.622
2108-42-05	2108-60-05	10-3 Solid (Black, Blue, White)	10 Solid (Green)	250	1000	215	0.600
2109-42-00	2109-60-00	10-4 Solid (Black, Red, Blue, White)	10 Solid (Green)	250	1000	241	0.667
120/208V Strande	d						
2161-42-00	2161-60-00	10-2 Stranded (Black, White)	10 Stranded (Green)	250	1000	161	0.614
2162-42-00	2162-60-00	10-3 Stranded (Black, Red, White)	10 Stranded (Green)	250	1000	289	0.659
2163-42-00	2163-60-00	10-4 Stranded (Black, Red, Blue, White)	10 Stranded (Green)	250	1000	255	0.704
277/480V Solid							
2107-42-01	2107-60-01	10-2 Solid (Brown, Gray)	10 Solid (Green)	250	1000	155	0.581
2107-42-02	2107-60-02	10-2 Solid (Orange, Gray)	10 Solid (Green)	250	1000	155	0.581
2107-42-03	2107-60-03	10-2 Solid (Yellow, Gray)	10 Solid (Green)	250	1000	155	0.581
2108-42-01	2108-60-01	10-3 Solid (Brown, Orange, Gray)	10 Solid (Green)	250	1000	198	0.600
2108-42-02	2108-60-02	10-3 Solid (Orange, Yellow, Gray)	10 Solid (Green)	250	1000	198	0.600
2108-42-03	2108-60-03	10-3 Solid (Brown, Yellow, Gray)	10 Solid (Green)	250	1000	198	0.600
2109-42-01	2109-60-01	10-4 Solid (Brown, Orange, Yellow, Gray)	10 Solid (Green)	250	1000	241	0.667
277/480V Strande	ed						
2161-42-01	2161-60-01	10-2 Stranded (Brown, Gray)	10 Stranded (Green)	250	1000	161	0.614
2162-42-01	2162-60-01	10-3 Stranded (Brown, Orange, Gray)	10 Stranded (Green)	250	1000	205	0.658
2163-42-01	2163-60-01	10-4 Stranded (Brown, Orange, Yellow, Gray)	10 Stranded (Green)	250	1000	255	0.704

# **MC Lite® Barrel**

# Type MC (120/280V Colors & 277/480V Colors) Technical Specifications

#### Armor

Interlocked Aluminum Strip

#### **Conductors**

Solid or Stranded Copper

#### **Conductor Insulation**

THHN/THWN

#### **Assembly Covering**

Polypropylene Tape

#### **Maximum Temperature Rating**

90°C (Dry)

#### Grounding

Insulated Green Grounding Conductor

#### **Neutral Conductor**

White 120/208V Gray 277/480V

#### **Maximum Voltage Rating**

600V



#### **References & Ratings**

- UL 83, 1479, 1569, 1581, 2556, File Reference E80042
   NEC® 230.43, 300.22(C), 392, 396, 330, 501, 502, 503, 530, 504, 505, 518, 520, 530, 645
- Federal Specification A-A-59544 (formerly J-C-30B)
- Meets all applicable OSHA and HUD Requirements
- · May be surface mounted, fished and/or embedded in plaster
- Cable tray rated, install per NEC®
- UL Classified 1, 2, and 3 hour through (Fire) penetration product, R14141
- Environmental Air-Handling Space Installation per NEC® 300.22(C)
- Made in USA of US and/or imported materials

Product Code No.	Trade Size	Grounding Conductor AWG	Length (ft)	Approx. Total Barrel Weight (lbs)	Approx. Armor O.D. (in)
MC Lite® Aluminum	Armored Cable				
120/208V Solid					
2104-93-00	12-2 Solid (Black, White)	12 Solid (Green)	2500	295	0.517
2105-92-00	12-3 Solid (Black, Red, White)	12 Solid (Green)	2000	290	0.549
2106-91-00*	12-4 Solid (Black, Red, Blue, White)	12 Solid (Green)	1500	275	0.586
2107-91-00*	10-2 Solid (Black, White)	10 Solid (Green)	1500	260	0.581
2108-90-00*	10-3 Solid (Black, Red, White)	10 Solid (Green)	1000	235	0.622
2109-90-00*	10-4 Solid (Black, Red, Blue, White)	10 Solid (Green)	1000	280	0.667
20/208V Stranded					
2158-92-00	12-2 Stranded (Black, White)	12 Stranded (Green)	2000	240	0.538
2159-91-00	12-3 Stranded (Black, Red, White)	12 Stranded (Green)	1500	290	0.573
2160-90-00*	12-4 Stranded (Black, Red, Blue, White)	12 Stranded (Green)	1000	190	0.613
2161-90-00*	10-2 Stranded (Black, White)	10 Stranded (Green)	1000	180	0.614
77/480V Solid					
2104-93-01	12-2 Solid (Brown, Gray)	12 Solid (Green)	2500	295	0.517
2104-93-02*	12-2 Solid (Orange, Gray)	12 Solid (Green)	2500	295	0.517
2104-93-03*	12-2 Solid (Yellow, Gray)	12 Solid (Green)	2500	295	0.517
2105-92-01	12-3 Solid (Brown, Orange, Gray)	12 Solid (Green)	2000	290	0.549
2105-92-02*	12-3 Solid (Orange, Yellow, Gray)	12 Solid (Green)	2000	290	0.549
2105-92-03*	12-3 Solid (Brown, Yellow, Gray)	12 Solid (Green)	2000	290	0.549
2106-91-01*	12-4 Solid (Brown, Orange, Yellow, Gray)	12 Solid (Green)	1500	275	0.586
2107-91-01*	10-2 Solid (Brown, Gray)	10 Solid (Green)	1500	260	0.581
2108-90-01*	10-3 Solid (Brown, Orange, Gray)	10 Solid (Green)	1000	235	0.600
2109-90-01*	10-4 Solid (Brown, Orange, Yellow, Gray)	10 Solid (Green)	1000	280	0.667
77/480V Stranded					
2158-92-01	12-2 Stranded (Brown, Gray)	12 Stranded (Green)	2000	240	0.538
2159-91-01	12-3 Stranded (Brown, Orange, Gray)	12 Stranded (Green)	1500	290	0.573

NOTE: All dimensions and weights are subject to normal manufacturing tolerances. Other conductor colors available by special order

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<sup>\*</sup> Special Order, subject to lead times and minimum order quantities.

# MC 8 AWG-2 through 1 AWG-4 Aluminum Armored Cable **Technical Specification**

#### Armor

Interlocked Aluminum Strip

#### Conductors

Stranded Copper

#### **Conductor Insulation**

THHN/THWN

#### **Assembly Covering**

Polypropylene Tape

#### **Maximum Temperature Rating**

90°C (Dry)

#### Grounding

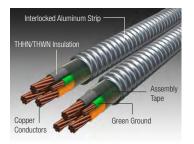
One Insulated Green Copper Grounding Conductor (Grounds May Be Solid in Certain Sizes)

#### **Neutral Conductor**

White 120/208V Gray 277/480V

#### **Maximum Voltage Rating**

600V



#### **References & Ratings**

- UL 83, 1479, 1569, 1581, 2556, File Reference E80042
- NEC® 230.43, 300.22(C), 330, 392, 396, 501, 502, 503, 504, 505, 518, 520, 530
- Federal Specifications A-A-59544 (formerly J-C30B)
- Meets all applicable OSHA and HUD requirements
- Cable Tray Rated, install per NEC®
- UL Classified 1, 2, and 3 hour through (fire) penetration product, R14141
   Made in USA of US and/or imported materials

Produc	t Code	Trade Size	Ground Conductor AWG	Leng	th (ft)	Approx. Weight/	Approx. Armor 0.[
						1,000ft (lbs)	(in)
				C = Coil,	R = Reel		
		able with Aluminum armor					
2115-40-00	2115-45-00	8-2 Stranded(Black, White)	10 Solid (Green)	200 C	500 R	217	0.677
2115-60-00	2115-65-00	8-2 Stranded(Black, White)	10 Solid (Green)	1,000 R	2,500 R	217	0.677
_	2115-70-00	8-2 Stranded (Black, White)	10 Solid (Green)	_	5,000 R	217	0.677
2115-40-01	2115-45-01	8-2 Stranded (Brown, Gray)	10 Solid (Green)	200 C	500 R	217	0.677
2115-60-01	2115-70-01*	8-2 Stranded (Brown, Gray)	10 Solid (Green)	1,000 R	5,000 R	217	0.677
2116-40-00	2116-45-00	8-3 Stranded (Black, Red, White)	10 Solid (Green)	200 C	500 R	296	0.813
2116-60-00	2116-65-00	8-3 Stranded(Black, Red, White)	10 Solid (Green)	1,000 R	2,500 R	296	0.813
_	2116-70-00	8-3 Stranded(Black, Red, White)	10 Solid (Green)	_	5,000 R	296	0.813
2116-40-01	2116-45-01	8-3 Stranded (Brown, Orange, Gray)	10 Solid (Green)	200 C	500 R	296	0.813
2116-60-01	2116-70-01*	8-3 Stranded (Brown, Orange, Gray)	10 Solid (Green)	1,000 R	5,000 R	296	0.813
2117-32-00	2117-45-00	8-4 Stranded (Black, Red, Blue, White)	10 Solid (Green)	125 C	500 R	363	0.848
2117-60-00	2117-65-00	8-4 Stranded (Black, Red, Blue, White)	10 Solid (Green)	1,000 R	2,500 R	363	0.848
_	2117-70-00*	8-4 Stranded (Black, Red, Blue, White)	10 Solid (Green)	_	5,000 R	363	0.848
2117-32-01	2117-45-01	8-4 Stranded (Brown, Orange, Yellow, Gray)	10 Solid (Green)	125 C	500 R	363	0.848
2117-60-01*	_	8-4 Stranded (Brown, Orange, Yellow, Gray)	10 Solid (Green)	1,000 R	_	363	0.848
2119-32-00	2119-45-00	6-2 Stranded (Black, White)	8 Stranded (Green)	125 C	500 R	320	0.816
2119-60-00	2119-69-00*	6-2 Stranded (Black, White)	8 Stranded (Green)	1,000 R	4,000 R	320	0.816
2119-32-01	2119-45-01	6-2 Stranded (Brown, Gray)	8 Stranded (Green)	125 C	500 R	320	0.816
2119-60-01*	2119-69-01*	6-2 Stranded (Brown, Gray)	8 Stranded (Green)	1,000 R	4,000 R	320	0.816
2120-32-00	2120-45-00	6-3 Stranded (Black, Red, White)	8 Stranded (Green)	125 C	500 R	429	0.945
2120-60-00	2120-65-00	6-3 Stranded (Black, Red, White)	8 Stranded (Green)	1,000 R	2,500 R	429	0.945
_	2120-69-00	6-3 Stranded (Black, Red, White)	8 Stranded (Green)	_	4,000 R	429	0.945
2120-32-01	2120-45-01	6-3 Stranded (Brown, Orange, Gray)	8 Stranded (Green)	125 C	500 R	429	0.945
2120-60-01*	2120-69-01*	6-3 Stranded (Brown, Orange, Gray)	8 Stranded (Green)	1,000 R	4,000 R	429	0.945
2121-30-00	2121-45-00	6-4 Stranded (Black, Red, Blue, White)	8 Stranded (Green)	100 C	500 R	532	1.026
2121-60-00	2121-65-00*	6-4 Stranded (Black, Red, Blue, White)	8 Stranded (Green)	1,000 R	2,500 R	532	1.026
_	2121-69-00*	6-4 Stranded (Black, Red, Blue, White)	8 Stranded (Green)	_	4,000 R	532	1.026
2121-30-01	2121-45-01	6-4 Stranded (Brown, Orange, Yellow, Gray)	8 Stranded (Green)	100 C	500 R	532	1.026
_	2121-69-01*	6-4 Stranded (Brown, Orange, Yellow, Gray)	8 Stranded (Green)	_	4,000 R	532	1.026
2124-30-00	2124-45-00	4-3 Stranded (Black, Red, White)	8 Stranded (Green)	100 C	500 R	617	1.057
2124-60-00	2124-65-00	4-3 Stranded (Black, Red, White)	8 Stranded (Green)	1,000 R	2,500 R	617	1.057
2125-30-00	2125-45-00	4-4 Stranded (Black, Red, Blue, White)	8 Stranded (Green)	100 C	500 R	845	1.080
2125-60-00	2125-65-00	4-4 Stranded (Black, Red, Blue, White)	8 Stranded (Green)	1,000 R	2,500 R	845	1.080
2128-30-00	2128-45-00	3-3 Stranded (Black, Red, White)	6 Stranded (Green)	100 C	500 R	788	1.108
2128-60-00	2128-66-00	3-3 Stranded (Black, Red, White)	6 Stranded (Green)	1,000 R	2,000 R	788.	1.108
2129-30-00	2129-45-00	3-4 Stranded (Black, Red, Blue, White)	6 Stranded (Green)	100 C	500 R	1025	1.120
2129-60-00	2129-66-00	3-4 Stranded (Black, Red, Blue, White)	6 Stranded (Green)	1,000 R	2,000 R	983	1.156
2126-30-00	2126-45-00	2-3 Stranded (Black, Red, White)	6 Stranded (Green)	100 C	500 R	956	1.152
2126-60-00	2126-66-00*	2-3 Stranded (Black, Red, White)	6 Stranded (Green)	1,000 R	2,000 R	956	1.152
2127-30-00	2127-45-00	2-4 Stranded (Black, Red, Blue, White)	6 Stranded (Green)	1,000 K	500 R	1208	1.225
2127-50-00	2127-36-00*	2-4 Stranded (Black, Red, Blue, White)	6 Stranded (Green)	1,000 R	1,500 R	1208	1.225
2137-30-00	2137-45-00	1-3 Stranded (Black, Red, White)	6 Stranded (Green)	1,000 K	500 R	1191	1.313
2137-30-00	2137-45-00*	1-3 Stranded (Black, Red, White)	6 Stranded (Green)	1,000 R	1,500 R	1191	1.313
2137-00-00	2137-30-00	1-4 Stranded (Black, Red, Blue, White)	6 Stranded (Green)	1,000 K	500 R	1498	1.363
2138-30-00	2138-45-00*	1-4 Stranded (Black, Red, Blue, White) 1-4 Stranded (Black, Red, Blue, White)	6 Stranded (Green)	1,000 R	1500 R	1506	1.356
		cial order on all items.	o stianided (dicen)	1,000 10	13001	1300	1.530

Note: Overall PVC jacket is available by special order on all items.

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# MC Intermediate and Feeder Cable Technical Specifications with Aluminum Armor

## **Technical Specification**

#### Armor

Interlocked Aluminum Strip

#### **Conductors**

Stranded Copper

#### **Conductor Insulation**

XHHW-2

#### **Assembly Covering**

Polypropylene Tape

#### **Maximum Temperature Rating**

90°C (Dry)

#### Grounding

One Bare Copper Grounding Conductor

#### **Neutral Conductor**

Black

#### **Maximum Voltage Rating**

600V



#### **References & Ratings**

- UL 44, 1479, 1569, 1581, 2556, File Reference E135326
- NEC® 230.43, 300.22(C), 330, 392, 396, 501, 502, 503, 504, 505, 518, 520, 530
- Cable Tray Rated, install per NEC®
- NEMA WC 70/ ICEA S-95-658
- Made in the USA of domestic and/or imported materials

#### Intermediate Size Cable

iiteriiieulate 312	e capie					
Product Code	Size	Conductor Color Code	Ground Conductor AWG	Length (ft)	Approx. Weight/ 1,000ft (lbs)	Approx. Armor O.D. (in)
MC Cable Alum	inum Armor Sp	pecifications – In Stock				
2170-99-00	1/0-3 MC LITE	Black #1 Black #2 Black #3	6 bare Cu Stranded	††	1398	1.310
2171-99-00	1/0-4 MC LITE	Black #1 Black #2 Black #3 Black #4	6 bare Cu Stranded	††	1789	1.430
2172-99-00	2/0-3 MC LITE	Black #1 Black #2 Black #3	6 bare Cu Stranded	††	1689	1.410
2173-99-00	2/0-4 MC LITE	Black #1 Black #2 Black #3 Black #4	6 bare Cu Stranded	††	2174	1.550
2174-99-00	3/0-3 MC LITE	Black #1 Black #2 Black #3	4 bare Cu Stranded	††	2098	1.510
2175-99-00	3/0-4 MC LITE	Black #1 Black #2 Black #3 Black #4	4 bare Cu Stranded	††	2700	1.650
2176-99-00	4/0-3 MC LITE	Black #1 Black #2 Black #3	4 bare Cu Stranded	††	2586	1.630
2177-99-00	4/0-4 MC LITE	Black #1 Black #2 Black #3 Black #4	4 bare Cu Stranded	††	3295	1.790

<sup>\*</sup> Denotes stocked items, other trade sizes available by special order. Overall PVC jacket is available by special order on all items.

#### Feeder Size Cable

Product Code	Size	Conductor Color Code	Ground Conductor AWG	Length (ft)	Approx. Weight/ 1,000ft (lbs)	Approx. Armor O.D. (in)
MC Cable Alum	inum Armor Sp	pecifications – Special Order				
21AA-99-00	250-3 MC LITE	Black #1 Black #2 Black #3	4 bare Cu Stranded	††	3123	1.81
21AB-99-00	250-4 MC LITE	Black #1 Black #2 Black #3 Black #4	4 bare Cu Stranded	††	4027	1.99
21AC-99-00	300-3 MC LITE	Black #1 Black #2 Black #3	3 bare Cu Stranded	tt	3654	1.93
21AD-99-00	300-4 MC LITE	Black #1 Black #2 Black #3 Black #4	3 bare Cu Stranded	††	4717	2.13
21AE-99-00	350-3 MC LITE	Black #1 Black #2 Black #3	3 bare Cu Stranded	††	4224	2.05
21AF-99-00	350-4 MC LITE	Black #1 Black #2 Black #3 Black #4	3 bare Cu Stranded	††	5465	2.25
21AG-99-00	400-3 MC LITE	Black #1 Black #2 Black #3	3 bare Cu Stranded	††	4712	2.17
21AH-99-00	400-4 MC LITE	Black #1 Black #2 Black #3 Black #4	3 bare Cu Stranded	††	6104	2.37
21AJ-99-00	500-3 MC LITE	Black #1 Black #2 Black #3	2 bare Cu Stranded	††	5842	2.33
21AK-99-00	500-4 MC LITE	Black #1 Black #2 Black #3 Black #4	2 bare Cu Stranded	††	7585	2.57
21AL-99-00	600-3 MC LITE	Black #1 Black #2 Black #3	2 bare Cu Stranded	††	6948	2.57
21AM-99-00	600-4 MC LITE	Black #1 Black #2 Black #3 Black #4	2 bare Cu Stranded	††	9040	2.85
21AN-99-00	750-3 MC LITE	Black #1 Black #2 Black #3	1 bare Cu Stranded	††	8618	2.85
21AP-99-00	750-4 MC LITE	Black #1 Black #2 Black #3 Black #4	1 bare Cu Stranded	††	11212	3.09

NOTE: Overall PVC jacket is available by special order on all items.

<sup>††</sup> Cut to length.

<sup>††</sup> Subject to minimums.

Additional Green

Conductor with

Yellow Stripe

Grounding

# MCTUFF® IG Isolated Ground Steel Armored Cable

# **Lightweight Traditional Type MC Technical Specifications**

#### Armor

Interlocked Galvanized Steel Strip (Blue Striped) with ColorSpec® ID

Solid or Stranded Copper

#### **Conductor Insulation**

THHN/THWN

#### **Assembly Covering**

Polypropylene Tape

#### **Maximum Temperature Rating**

90°C (Dry)

#### Grounding

2 Solid or Stranded Grounding Conductors, Green, Green with Yellow stripe

#### **Neutral Conductor**

White 120/208V

#### **Maximum Voltage Rating**





#### **References & Ratings**

- UL 83, 1479, 1569, 1581, 2556, File Reference E80042
- NEC® 230.43, 250.118, 300.22(C), 392, 396, 330, 501, 502, 503, 530, 504, 505, 518, 520, 530, 645

Green Insulated Copper

Grounding Conductor

- Cable Tray Rated, install per NEC®
- Federal Specification A-A-59544 (formerly J-C-30B)
- Meets all applicable OSHA and HUD Requirements
- UL Classified 1, 2, and 3 hour through (Fire) penetration product, R14141
- Environmental Air-Handling Space Installation per NEC® 300.22(C)
- U.S. Patent No. 8,278,554 B2
- Made in USA of US and/or imported materials

Product C	ode No.	Trade Size	Grounding	Leng	th (ft)	Approx. Weight/	Approx. Armor O.D.
Coil	Reel	Iraue Size	Conductor AWG	Coil	Reel	1,000ft (lbs)	(in)
MCTUFF® IG Iso	olated Ground	Steel Cable					
120/208V Solid Co	onductors						
1705B42T80	1705B60T80	12-2 Solid (Black, White)	12 Solid (Green, Green/Yellow)	250	1000	186	0.530
1706B42T80	1706B60T80	12-3 Solid (Black, Red, White)	12 Solid (Green, Green/Yellow)	250	1000	223	0.565
1710B42T80	1710B60T80	12-4 Solid (Black, Blue, Red, White)	12 Solid (Green, Green/Yellow)	250	1000	335	0.580
1708B42T80	1708B60T80	10-2 Solid (Black, White)	10 Solid (Green, Green/Yellow)	250	1000	268	0.600
1709B42T80	1709B60T80	10-3 Solid (Black, Red, White)	10 Solid (Green, Green/Yellow)	250	1000	313	0.645
1711B42T80	1711B60T80	10-4 Solid (Black, Red, Blue, White)	10 Solid (Green, Green/Yellow)	250	1000	450	0.670
1705B42T84	1705B60T84	12-2 Solid (Red, White)	12 Solid (Green, Green/Yellow)	250	1000	186	0.530
1705B42T85	1705B60T85	12-2 Solid (Blue, White)	12 Solid (Green, Green/Yellow)	250	1000	186	0.530
1708B42T84	1708B60T84	10-2 Solid (Red, White)	10 Solid (Green, Green/Yellow)	250	1000	268	0.600
1708B42T85	1708B60T85	10-2 Solid (Blue, White)	10 Solid (Green, Green/Yellow)	250	1000	268	0.600
120/208V Strande	d Conductors						
1759B42T80	1759B60T80	12-2 Stranded (Black, White)	12 Stranded (Green, Green/Yellow)	250	1000	191	0.530

NOTE: All dimensions and weights are subject to normal manufacturing tolerances

# MC Lite® IG Aluminum Armored Cable

# **Type MC Technical Specifications**

#### Armor

Interlocked Aluminum Strip with ColorSpec® ID

#### **Conductors**

Solid or Stranded Copper

#### **Conductor Insulation**

THHN/THWN

#### **Assembly Covering**

Polypropylene Tape

#### **Maximum Temperature Rating**

90°C (Dry)

#### Grounding

2 Solid or Stranded Grounding Conductors, Green, Green with Yellow stripe

#### **Neutral Conductor**

White 120/208V

#### **Maximum Voltage Rating**

600V





Interlocked Aluminum Strip ColorSpec® ID System

#### **References & Ratings**

- UL 83, 1479, 1569, 1581, 2556, File Reference E80042
- NEC® 230.43, 300.22(C), 392, 396, 330, 501, 502, 503, 530, 504, 505, 518, 520, 530, 645
- Federal Specification A-A-59544 (formerly J-C-30B)
- Meets all applicable OSHA and HUD Requirements
- May be surface mounted, fished and/or embedded in plaster
- Cable Tray Rated, install per NEC®
- UL Classified 1, 2, and 3 hour through (Fire) penetration product, R14141
- Environmental Air-Handling Space Installation per NEC® 300.22(C)
- RoHS Compliant
- U.S. Patent No. 8,278,554 B2
- Made in USA of US and/or imported materials

Product Code No.		Trade Size	Grounding	Len	gth (ft)	Approx. Weight/	Approx. Armor O.D.
Coil	Reel	irade 21Ze	Conductor AWG	Coil	Reel	1,000ft (lbs)	(in)
MC Lite® IG Iso	olated Ground A	luminum Cable					
120/208V Solid (	Conductors						
2105S42-80	2105S60-80	12-2 Solid (Black, White)	12 Solid (Green, Green/Yellow)	250	1000	135	0.530
2105S42-84*	2105S60-84*	12-2 Solid (Red, White)	12 Solid (Green, Green/Yellow)	250	1000	135	0.530
2105S42-85*	2105S60-85*	12-2 Solid (Blue, White)	12 Solid (Green, Green/Yellow)	250	1000	135	0.530
2106S42-80*	2106S60-80*	12-3 Solid (Black, Red, White)	12 Solid (Green, Green/Yellow)	250	1000	170	0.565
2110S42-80*	2110S60-80*	12-4 Solid (Black, Red, Blue, White)	12 Solid (Green, Green/Yellow)	250	1000	189	0.623
2108-42-80*	2108-60-80*	10-2 Solid (Black, White)	10 Solid (Green, Green/Yellow)	250	1000	215	0.600
2108-42-85*	2108-60-85*	10-2 Solid (Blue, White)	10 Solid (Green, Green/Yellow)	250	1000	215	0.600
2108-42-84*	2108-60-84*	10-2 Solid (Red, White)	10 Solid (Green, Green/Yellow)	250	1000	215	0.600
2109-42-80*	2109-60-80*	10-3 Solid (Black, Red, White)	10 Solid (Green, Green/Yellow)	250	1000	260	0.645
2111-42-80*	2111-60-80*	10-4 Solid (Black, Red, Blue, White)	10 Solid (Green, Green/Yellow)	250	1000	284	0.713
120/208V Strand	led Conductors						
2159S42-80*	2159S60-80	12-2 Stranded (Black, White)	12 Stranded (Green, Green/Yellow)	250	1000	110	0.495

NOTE: All dimensions and weights are subject to normal manufacturing tolerances 10AWG No ColorSpec® ID

<sup>\*</sup> Subject to minimums and lead times

AFC Cable Catalog www.afcweb.com

# Introduction Type AC Armored Cables

# Type AC Armored Cables – Uses Permitted:

The uses permitted for AC cable are governed by NEC® Article 320 and any applicable local codes. Please refer to NEC® Article 320 and your local authority having jurisdiction for additional information.

- Where not subject to physical damage for branch circuits and feeders in both exposed and concealed work and in cable trays where identified for such use
- In dry locations and embedded in plaster finish on brick or other masonry, except in damp or wet locations
- Run or fished in the air voids of masonry block or tile walls where the walls are not exposed or subject to excessive moisture or dampness
- Under raised floors, above suspended ceilings and in other environmental air handling spaces per NEC® 300.22(C)
- Aluminum armored cables are RoHS Compliant
- Made in USA of US and/or imported materials

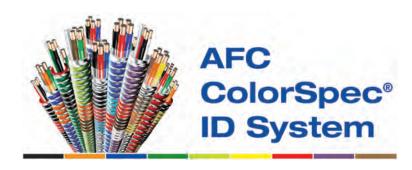
# Type AC Armored Cables – Uses Not Permitted:

According to NEC® Article 320.12, AC cable can not be installed in the following locations:

- In theaters and similar locations, except as provided in NEC® Article 518, Places of Assembly
- In motion picture studios
- In locations classified as hazardous
- Where exposed to corrosive fumes or vapors
- On cranes or hoists
- In storage battery rooms
- In hoist-ways or on elevators, except as provided in NEC<sup>®</sup> Section 620.21
- In commercial garages where prohibited in 511.4 and 511.7

For more information about the proper use and application of AC & MC cables, visit AFC University at www.afcweb.com/afcu.

NEC® is a registered trademark of the National Electrical Code®.



AFC manufactures two varieties of armored (Type AC) cables, standard AC cable and HCF, Health Care Facilities Cable, both featuring the ColorSpec ID System.

**AC Cable:** Type AC cable consists of 2 to 4 copper conductors in sizes 14 gauge to 1 AWG inside an interlocked metal armor of steel or aluminum construction.

A 16 AWG aluminum bonding wire is inside of, and in physical contact with, the metal armor providing a low-impedance fault-return path required for the operation of overcurrent protection devices. The 16 AWG bonding wire is unique to Type AC cable and allows the outer metal armor in conjunction with the bonding wire to be used as the equipment ground.

It is important to note that the bare bond wire is not an equipment grounding conductor. It is the bond wire that, in combination with the interlocked metal armor, provides a low impedance equipment grounding path. AFC color codes its standard AC-90° cable Black for easy identification.

HCF Health Care Facilities Cable: HCF is constructed in the same manner as standard AC cable with the addition of an insulated green grounding conductor. This additional ground allows HCF to be used in patient care areas of health care facilities (other than hazardous locations or emergency circuits in a health care setting) including hospitals, nursing homes, dental offices and medical centers per NEC® 517.13. The bond wire/armor combination provides the cable's equipment ground while the insulated Green grounding conductor provides a redundant or isolated ground. AFC color codes HCF cable Green for easy identification.

Type AC cable should be cut with an armored cable rotary cutting tool. A rotary cutters help eliminate nicking and cutting of the conductors and removes the metal armor quickly and safely.





# AC-90<sup>®</sup> & Type AC-Lite<sup>®</sup> Armored Cable

Interlocked Galvanized Steel or Aluminum Armor

#### **Features & Benefits**

- Interlocked galvanized steel strip or aluminum strip
- · Easy to identify black armor in steel
- Integral bond wire/armor equipment ground fault path
- UL classified for through-penetration product R14141
- Aluminum armored cables are RoHS Compliant
- · Made in USA of US and/or imported materials

#### **Applications**

 Commercial, industrial, multi-residential branch circuits and feeder wiring, services for power, lighting, control and signal circuits. Exposed or concealed, surface mounted, embedded in plaster finish on brick or other masonry (except wet or damp locations), fished or run in air voids of masonry block or tile walls, under raised floors, above suspended ceilings and in other environmental air-handling spaces

Product Specifications	Refer to page:
AC-90° Steel Armored Cable (120/208V Colors)	46
AC-90® Steel Armored Cable (277/480V Colors)	46
AC-Lite® Aluminum Armored Cable (120/208V Conductor Colors, Plain Armor, No Stripes)	47
AC-Lite® Aluminum Armored Cable (277/480V Colors)	47
*U.S. Patent No. 8,278,554 B2	





# HCF-90® & HCF-Lite® Health Care Facilities Armored Cable

Interlocked Galvanized Steel or Aluminum Armor Color-Coded Green\*

#### **Features & Benefits**

- Interlocked galvanized steel or aluminum strip
- Easy to identify green armor
- Full size green insulated copper grounding conductor plus armor/bond wire combination provides redundant ground
  or isolated grounding capability
- UL classified for through-penetration product R14141
- Aluminum armored cables are RoHS Compliant
- Made in USA of US and/or imported materials

#### **Applications**

Branch circuits and feeders in areas of patient care in hospitals, nursing homes, outpatient facilities, dental offices, clinics and medical centers (other than hazardous anesthetizing locations), data processing systems, Places of Assembly, under raised floors, above suspended ceilings and in other environmental air-handling spaces, exposed or concealed, surface mounted or fished, any application approved for AC cable requiring an isolated or redundant ground

Product Specifications	Refer to page:
HCF-90® Steel Health Care Facilities Cable (120/208V Colors)	48
HCF-90® Steel Health Care Facilities Cable (277/480V Colors)	48
HCF-Lite® Aluminum Health Care Facilities Cable (120/208V Colors)	49
HCF-Lite® Aluminum Health Care Facilities Cable (277/480V Colors)	49
*U.S. Patent No. 8,278,554 B2	

# Type AC-90° Steel Armored Cable & AC-90° Plus Steel Armored Cable

## (120/208V Colors & 277/480V Colors) Technical Specifications

#### Armoi

Interlocked Galvanized Steel Strip (Black Striped) with ColorSpec® ID

#### Conductors

Solid or Stranded Copper

#### **Conductor Insulation**

THHN

#### **Conductor Insulation Covering**

Moisture Resistant Fire Retardant Paper Wrap

#### **Maximum Temperature Rating**

90°C (Dry) Type ACTHH

#### Grounding

16AWG Integral Bond Wire/Armor Combination

#### **Neutral Conductor**

White 120/208V Gray 277/480V

#### **Maximum Voltage Rating**

600V





- UL 4, 83, 1479, 1581, 2556, File Reference E7330
- NEC® 250.118(8), 300.22(C), 392, 320, 645
- Federal Specification A-A-59544 (formerly J-C-30B)
- Meets all applicable OSHA and HUD Requirements
- Cable Tray Rated, install per NEC®
- UL Classified 1, 2, and 3 hour through (Fire) penetration product, R14141

Paper Wrap on Each Conductor

Copper

Conductors

Nylon Thermoplastic

THHN Insulation

- Environmental Air-Handling Space Installation per NEC® 300.22(C)
- U.S. Patent No. 8,278,554 B2
- Made in USA of US and/or imported materials

Product	Code No.	Trade Size	Len	gth (ft)	Approx. Weight/	Approx. Armor O.D.
Coil	Reel	Trade Size	Coil	Reel	1,000ft (lbs)	(in)
120/208V Solid		'	<u>'</u>	1		
1401N42-00	1401N60-00	14-2 Solid (Black, White)	250	1000	173	0.485
1402N42-00	1402N60-00	14-3 Solid (Black, Red, White)	250	1000	197	0.502
1403N42-00	1403N60-00	14-4 Solid (Black, Red, Blue, White)	250	1000	226	0.533
1404N42-00	1404N60-00	12-2 Solid (Black, White)	250	1000	201	0.514
1405N42-00	1405N60-00	12-3 Solid (Black, Red, White)	250	1000	235	0.535
1406N42-00	1406N60-00	12-4 Solid (Black, Red, Blue, White)	250	1000	279	0.581
1407N32-00	1407N60-00	10-2 Solid (Black, White)	125	1000	250	0.476
1407N42-00	_	10-2 Solid (Black, White)	250	_	250	0.476
1408N32-00	1408N60-00	10-3 Solid (Black, Red, White)	125	1000	306	0.600
1408N42-00	_	10-3 Solid (Black, Red, White)	250	_	306	0.600
1409N32-00	1409N60-00	10-4 Solid (Black, Red, Blue, White)	125	1000	367	0.654
1409N42-00	_	10-4 Solid (Black, Red, Blue, White)	250	_	367	0.654
120/208V Stranded	i					
1415-40-00	1415-45-00	8-2 Stranded (Black, White)	200	500	362	0.755
1416-40-00	1416-45-00	8-3 Stranded (Black, Red, White)	200	500	398	0.871
1417-32-00	1417-45-00	8-4 Stranded (Black, Red, Blue, White)	125	500	638	0.848
1419-32-00	1419-45-00	6-2 Stranded (Black, White)	125	500	565	0.835
1420-32-00	1420-45-00	6-3 Stranded (Black, Red, White)	125	500	688	0.875
1421-30-00	1421-45-00	6-4 Stranded (Black, Red, Blue, White)	100	500	827	0.944
1424-30-00	1424-45-00	4-3 Stranded (Black, Red, White)	100	500	922	0.975
1425-30-00	1425-45-00	4-4 Stranded (Black, Red, Blue, White)	100	500	750	0.985
1428-30-00	1428-45-00	3-3 Stranded (Black, Red, White)	100	500	1071	1.028
1429-30-00	1429-45-00	3-4 Stranded (Black, Red, Blue, White)	100	500	1323	1.122
1426-30-00	1426-45-00	2-3 Stranded (Black, Red, White)	100	500	1239	1.093
1427-30-00	1427-45-00	2-4 Stranded (Black, Red, Blue, White)	100	500	1540	1.195
480Y/277V Solid						
1404N42-01	1404N60-01	12-2 Solid (Brown, Gray)	250	1000	201	0.514
1404N42-02*	1404N60-02*	12-2 Solid (Orange, Gray)	250	1000	201	0.514
1405N42-01	1405N60-01	12-3 Solid (Brown, Orange, Gray)	250	1000	235	0.535
1405N42-02*	1405N60-02*	12-3 Solid (Orange, Yellow, Gray)	250	1000	235	0.535
1406N42-01*	1406N60-01*	12-4 Solid (Brown, Orange, Yellow, Gray)	250	1000	279	0.581

NOTE: All dimensions and weights are subject to normal manufacturing tolerances.

#### Available in Barrels by special order

Product Code No.		Trade Size	Length (ft)		Approx. Weight/	Approx. Armor O.D.	
Coil	Reel	Haue Size	Coil Reel		1,000ft (lbs)	(in)	
AC-Plus® Steel Arm	ored Cable						
1406N42-263	1406N60-263	12-2 (Black, Red, White/Black, White/Red)	250	1000	290	0.581	
1409N42-263	1409N60-263	10-2 (Black, Red, White/Black, White/Red)	250	1000	380	0.654	

<sup>\*</sup> Subject to minimum orders and lead times

# **Type AC-Lite®Aluminum Armored Cable**

## (120/208V Colors & 277/480V Colors) Technical Specifications Plain Armor

#### Armor

Interlocked Aluminum Strip

#### Conductors

Solid or Stranded Copper

#### **Conductor Insulation**

THHN

#### **Conductor Insulation Covering**

Moisture Resistant Fire Retardant Paper Wrap

#### **Maximum Temperature Rating**

90°C (Dry) Type ACTHH

#### Grounding

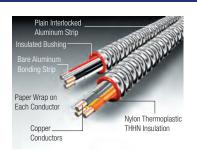
16AWG Integral Bond Wire/Armor Combination

#### **Neutral Conductor**

White 120/208V Gray 277/480V

#### **Maximum Voltage Rating**

600V



#### **References & Ratings**

- UL 4, 83, 1479, 1581, 2556, File Reference E7330
- NEC® 250.118(8), 300.22(C), 392, 320, 645
- Federal Specification A-A-59544 (formerly J-C-30B)
- Meets all applicable OSHA and HUD Requirements
- Cable Tray Rated, install per NEC®
- UL Classified 1, 2, and 3 hour through (Fire) penetration product, R14141
- Environmental Air-Handling Space Installation per NEC® 300.22(C)
- Aluminum armored cables are RoHS Compliant
- Made in USA of US and/or imported materials

Product Code No.		Trade Size	Len	Length (ft)		Approx. Armor O.D.
Coil	Reel	naue size	Coil	Reel	1,000ft (lbs)	(in)
120/208V Solid						
2701-42-00	2701-60-00	14-2 Solid (Black, White)	250	1000	84	0.485
2702-42-00	2702-60-00	14-3 Solid (Black, Red, White)	250	1000	100	0.453
2703-42-00	2703-60-00	14-4 (Black, Red, Blue, White)	250	1000	120	0.486
2704-42-00	2704-60-00	12-2 Solid (Black, White)	250	1000	104	0.514
2705-42-00	2705-60-00	12-3 Solid (Black, Red, White)	250	1000	133	0.535
2706-42-00	2706-60-00	12-4 (Black, Red, Blue, White)	250	1000	279	0.581
2707-42-00	2707-60-00	10-2 Solid (Black, White)	250	1000	143	0.585
2708-42-00	2708-60-00	10-3 Solid (Black, Red, White)	250	1000	187	0.610
2709-42-00	2709-60-00	10-4 (Black, Red, Blue, White)	250	1000	232	0.653
120/208V Stranded	1					
2715-40-00	2715-45-00	8-2 Stranded (Black, White)	200	500	214	0.755
2716-40-00	2716-45-00	8-3 Stranded (Red, White)	200	500	285	0.789
2717-32-00	2717-45-00	8-4 Stranded (Black, Red, Blue, White)	125	500	400	0.864
2719-32-00	2719-45-00	6-2 Stranded (Black, White)	125	500	552	0.951
2720-32-00	2720-45-00	6-3 Stranded (Black, Red, White)	125	500	437	0.875
2721-30-00	2721-45-00	6-4 Stranded (Black, Red, Blue, White)	100	500	329	0.835
2724-30-00	2724-45-00	4-3 Stranded (Black, Red, White)	100	500	635	0.975
2725-30-00	2725-45-00	4-4 Stranded (Black, Red, Blue, White)	100	500	812	1.062
2728-30-00	2728-45-00	3-3 Stranded (Black, Red, White)	100	500	765	1.028
2729-30-00	2729-45-00	3-4 Stranded (Black, Red, Blue, White)	100	500	1004	1.173
2726-30-00	2726-45-00	2-3 Stranded (Black, Red, White)	100	500	909	1.093
2727-30-00	2727-45-00	2-4 Stranded (Black, Red, Blue, White)	100	500	1173	1.195
277/480V Solid						
2704N42-01*	2704N60-01*	12-2 Solid (Brown, Gray)	250	1000	104	0.514
2705N42-01*	2705N60-01*	12-3 Solid (Brown, Orange, Gray)	250	1000	133	0.535

NOTE: All dimensions and weights are subject to normal manufacturing tolerances. Other conductor colors available by special order.

#### Available in Barrels by special order

#### See page 61 for bond wire termination details.

Not to be used with set screw type fittings or on DC circuits.

<sup>\*</sup> Subject to minimum orders and lead times, comes with Black stripe and phase ID

48 AFC Cable Catalog www.afcweb.com

# Type AC HCF-90® Steel Healthcare Facilities Cable

## (120/208V Colors & 277/480V Colors) Technical Specifications

#### **Armor & Jacket**

Interlocked Galvanized Steel Strip (Green Striped)

#### Conductors

Solid Copper

#### **Conductor Insulation**

THHN

#### **Conductor Insulation Covering**

Moisture Resistant Fire Retardant Paper Wrap

#### **Maximum Temperature Rating**

90°C (Dry) Type ACTHH

#### Grounding

16 AWG Integral Bond Wire/Armor Combination per 250.118(8) and Green Insulated Copper Grounding Conductor per 250.118(1)

#### **Neutral Conductor**

White 120/208V Gray 277/480V

#### **Maximum Voltage Rating**

600V



#### **References & Ratings**

- UL 4, 83, 1479, 1581, 2556, File Reference E7330
- NEC® 250.118(8), 300.22(C), 392, 320, 517.13, 518, 645
- Federal Specification A-A-59544 (formerly J-C-30B)
- Meets all applicable OSHA and HUD Requirements
- Cable Tray Rated, install per NEC<sup>®</sup>
- UL Classified 1, 2, and 3 hour through (Fire) penetration product, R14141

Paper Wrap on

Each Conductor

Nylon Thermoplastic

THHN Insulation

- Environmental Air-Handling Space Installation per NEC® 300.22(C)
- U.S. Patent No. 8,278,554 B2
- Made in USA of US and/or imported materials

Product Code Stock Items		Trade Size	Grounding	Lengt	th (ft)	Approx. Weight/	Approx. Armor O.D.
Coil	Reel	irade Size	Conductor AWG	Coil	Reel	1,000ft (lbs)	(in)
120/208V Solid							
1504G42-00	1504G60-00	12-2 Solid (Black, White)	12 Solid (Green)	250	1000	235	0.535
1505G42-00	1505G60-00	12-3 Solid (Black, Red, White)	12 Solid (Green)	250	1000	279	0.582
1506G42-00	1506G60-00	12-4 Solid (Black, Red, Blue, White	12 Solid (Green)	250	1000	320	0.621
1507G42-00	1507G60-00	10-2 Solid (Black, White)	10 Solid (Green)	250	1000	309	0.610
1508G42-00	1508G60-00	10-3 Solid (Black, Red, White)	10 Solid (Green)	250	1000	383	0.696
1509G42-00	1509G60-00	10-4 Solid (Black, Red, Blue, White)	10 Solid (Green)	250	1000	426	0.752
120/208V Special	ty Colors						
1504G42-04	1504G60-04	12-2 Solid (Red, White)	12 Solid (Green)	250	1000	235	0.535
1504G42-05	1504G60-05	12-2 Solid (Blue, White)	12 Solid (Green)	250	1000	235	0.535
277/480V Solid							
1504G42-01	1504G60-01	12-2 Solid (Brown, Gray)	12 Solid (Green)	250	1000	235	0.535
1504G42-02	1504G60-02	12-2 Solid (Orange, Gray)	12 Solid (Green)	250	1000	235	0.535
1504G42-03	1504G60-03	12-2 Solid (Yellow, Gray)	12 Solid (Green)	250	1000	235	0.535
1505G42-01	1505G60-01	12-3 Solid (Brown, Orange, Gray)	12 Solid (Green)	250	1000	279	0.582
1506G42-01	1506G60-01	12-4 Solid (Brown, Orange, Yellow, Gray)	12 Solid (Green)	250	1000	320	0.621
1507G42-01	1507G60-01	10-2 Solid (Brown, Gray)	10 Solid (Green)	250	1000	300	0.545
1508G42-01	1508G60-01	10-3 Solid (Brown, Orange, Gray)	10 Solid (Green)	250	1000	309	0.610
1509G42-01	1509G60-01	10-4 Solid (Brown, Orange, Yellow, Gray)	10 Solid (Green)	250	1000	426	0.752

NOTE: All dimensions and weights are subject to normal manufacturing tolerances. Sizes 14 AWG, 8 AWG and larger are available by special order and subject to lead time and minimum quantities.

Emergency circuits require special consideration in healthcare settings. Review NEC® 517.30 (C)(3)(3) for guidance on the use of HCF cables on emergency circuits.

See page 61 for bond wire termination details.

Copper Ground

# **HCF®-Lite Aluminum Healthcare Facilities Cable**

## Type AC (120/208V & 277/480V) Technical Specifications

#### **Armor & Jacket**

Aluminum Interlocked (Green Striped) with ColorSpec® ID

#### Conductors

Solid/Stranded Copper (See Below)

#### **Conductor Insulation**

THHN

#### **Conductor Insulation Covering**

Moisture Resistant Fire Retardant Paper Wrap

#### **Maximum Temperature Rating**

90°C (Dry) Type ACTHH

#### Grounding

16 AWG Integral Bond Wire/Armor Combination per 250.118(8) and Green Insulated Copper Grounding Conductor per 250.118(1)

#### **Neutral Conductor**

White 120/208V Gray 277/480V

#### **Maximum Voltage Rating**

6001/



#### References & Ratings

- UL 4, 83, 1479, 1581, 2556, File Reference E7330
- NEC® 250.118(8), 300.22(C), 392, 320, 517.13, 518, 645
- Federal Specification A-A-59544 (formerly J-C-30B)
- Meets all applicable OSHA and HUD Requirements
- Cable Tray Rated, install per NEC®
- UL Classified 1, 2, and 3 hour through (Fire) penetration product, R14141

Paper Wrap on Fach Conductor

Nylon Thermonlasi

THHN Insulation

- Environmental Air-Handling Space Installation per NEC® 300.22(C)
- Aluminum armored cables are RoHS Compliant
- U.S. Patent No. 8,278,554 B2
- Made in USA of US and/or imported materials

Product Code S	Stock Items	Trade Size	Grounding	Length (ft)		Approx. Weight/	Approx. Armor O.D.
Coil	Reel	irade Size	Conductor AWG	Coil	Reel	1,000ft (lbs)	(in)
HCF® Lite Alumin	um Healthcare F	acilities Cable					
120/208V							
2804G42-00	2804G60-00	12-2 Solid (Black, White)	12 Solid (Green)	250	1000	132	0.535
2805G42-00	2805G60-00	12-3 Solid (Black, Red, White)	12 Solid (Green)	250	1000	171	0.625
2806G42-00	2806G60-00	12-4 Solid (Black, Red, Blue, White)	12 Solid (Green)	250	1000	195	0.610
2807G42-00	2807G60-00	10-2 Solid (Black, White)	10 Solid (Green)	250	1000	185	0.599
2808G42-00	2808G60-00	10-3 Solid (Black, Red, White)	10 Solid (Green)	250	1000	232	0.653
2809G42-00	2809G60-00	10-4 Solid (Black, Red, Blue, White)	10 Solid (Green)	250	1000	279	0.752
120/208V Strande	d						
2858G42-00	2858G60-00	12-2 Stranded (Black, White)	12 Stranded (Green)	250	1000	141	0.568
2859G42-00	2859G60-00	12-3 Stranded (Black, Red, White)	12 Stranded (Green)	250	1000	171	0.594
2860G42-00	2860G60-00	12-4 Stranded (Black, Red, Blue, White)	12 Stranded (Green)	250	1000	211	0.695
120/208V Specialt	y Colors						
2804G42-04	2804G60-04	12-2 Solid (Red, White)	12 Solid (Green)	250	1000	132	0.535
2804G42-05	2804G60-05	12-2 Solid (Blue, White)	12 Solid (Green)	250	1000	132	0.535
480Y/277V							
2804G42-01	2804G60-01	12-2 Solid (Brown, Gray)	12 Solid (Green)	250	1000	132	0.535
2804G42-02	2804G60-02	12-2 Solid (Orange, Gray)	12 Solid (Green)	250	1000	132	0.535
2804G42-03	2804G60-03	12-2 Solid (Yellow, Gray)	12 Solid (Green)	250	1000	132	0.535
2805G42-01	2805G60-01	12-3 Solid (Brown, Orange, Gray)	12 Solid (Green)	250	1000	171	0.625
2806G42-01	2806G60-01	12-4 Solid (Brown, Orange, Yellow, Gray)	12 Solid (Green)	250	1000	195	0.610
480Y/277V Strand	ed						
2858G42-01	2858G60-01	12-2 Stranded (Brown, Gray)	12 Stranded (Green)	250	1000	141	0.568

NOTE: All dimensions and weights are subject to normal manufacturing tolerances.

Not to be used with set screw type fittings or on DC circuits.

Sizes 14 AWG, 8 AWG, & larger are available by special order and subject to lead time and minimum quantities

Not to be used with setscrew type fittings or on DC circuits

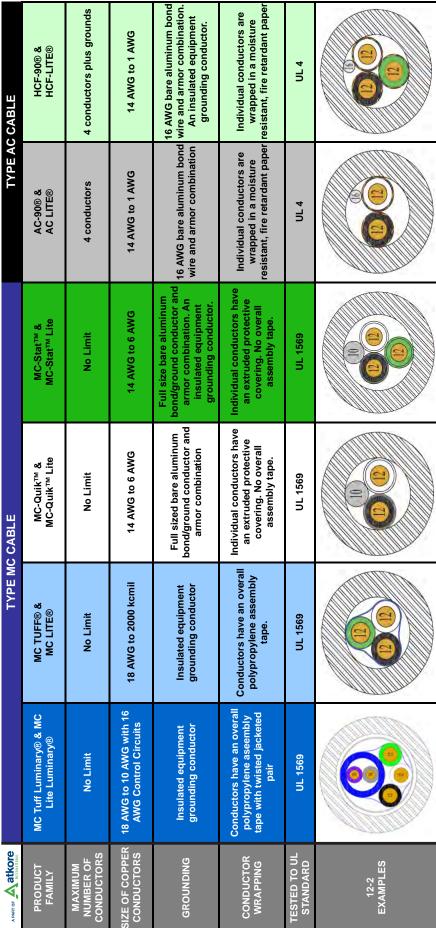
Emergency circuits require special consideration in healthcare settings.

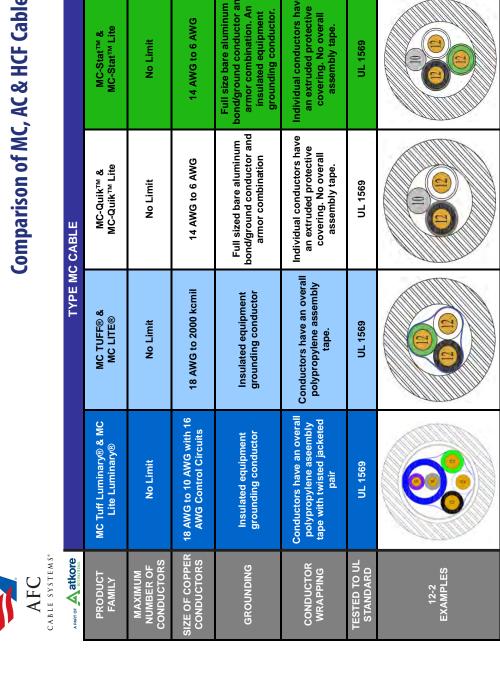
Review NEC® 517.30 (C)(3)(3) for guidance on the use of HCF cables on emergency circuits.

See page 61 for bond wire termination details.

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# Comparison of MC, AC & HCF Cables

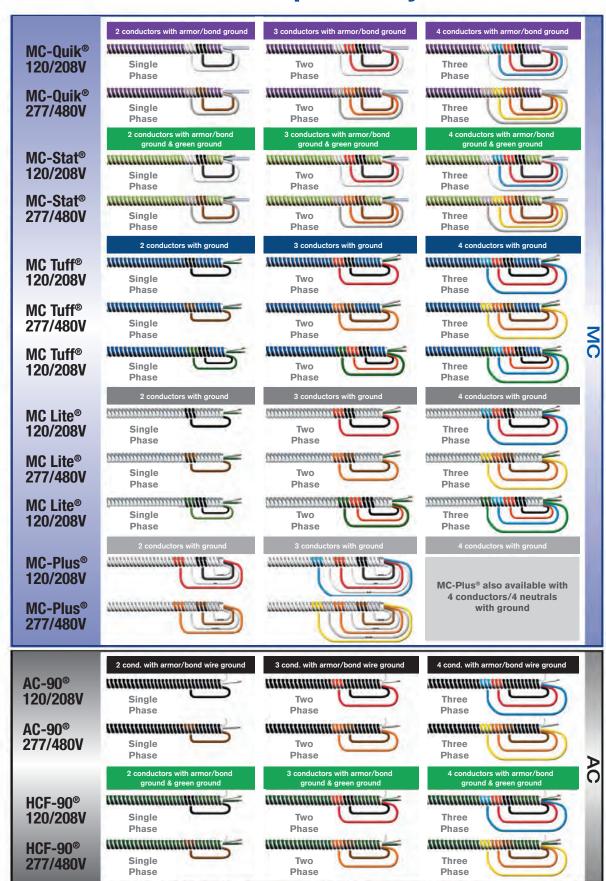




**50** 800-757-6996

# AFC ColorSpec® ID System

# **AFC ColorSpec® ID System**



AFC Cable Systems, Inc.

960 Flaherty Drive, New Bedford, MA 02745

Toll Free: 800-757-6996

Fax: 508-998-5416

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# **Bare Armored Ground Cable Technical Specifications**

#### Armor

Interlocked Galvanized Steel Strip

#### Conductors

Solid 8 AWG and 6 AWG Copper 7 Strand 4 AWG Copper

#### **References & Ratings**

- UL 467 E82631
- NEC® 250.118(1), 250.64(B)



Product Cod	e Stock Items	Trade Size	Leng	th (ft)	Approx. Weight/	Approx. Armor O.D.
Coil	Reel	Haue 312e	Coil	Reel	1,000ft (lbs)	(in)
Bare Armored Ground	d Cable					
1301-42-00	1301-60-00	8-1 Solid	250'	1000'	180	0.470
1302-42-00	1302-60-00	6-1 Solid	250'	1000'	210	0.470
1303-42-00	1303-45-00	4-1 Stranded	250'	500'	284	0.530

NOTE: All dimensions and weights are subject to normal manufacturing tolerances

# **Armored Thermostat Cable**

#### Armor

Galvanized Steel Interlocked Armor

#### Conductors

Solid Copper

#### Insulation

Type TFN

#### **Assembly Covering**

Moisture Resistant Fire Retardant Paper Wrap

#### **Maximum Temperature Rating**

90°C (Dry)

#### **Maximum Voltage Rating**

600V



Product Cod	e Stock Items	Trade Size	Leng	th (ft)	Approx. Weight/	Approx. Armor O.D.
Coil	Reel	Hade Jize	Coil	Reel	1,000ft (lbs)	(in)
Armored Thermo	stat Cable					
2501-42-00	2501-60-00	18-2 (Black, White)	250	1000	135	0.47
2502-42-00	2502-60-00	18-3 (Black, Red, White)	250	1000	142	0.47
2503-42-00	2503-60-00	18-4 (Black, Red, Blue, White)	250	1000	149	0.47
2504-42-00	2504-60-00	18-5 (Black, Red, Blue, Yellow, White)	250	1000	157	0.47
2505-42-00	2505-60-00	18-6 (Black, Red, Blue, Yellow, Orange, White)	250	1000	172	0.492
2506-42-00	2506-60-00	18-8 (Black, Red, Blue, Yellow, Orange, Brown, Purple, White)	250	1000	196	0.517

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# **AFC Metallic Whips Type UL**

#### Conduit

Galvanized Type RW Steel Flexible Metal Conduit

#### Conductors

Solid or Stranded Copper THHN 14AWG and Larger 18 & 16AWG TFN/TFFN

#### **Maximum Temperature Rating**

90°C (Dry)

#### Grounding

NEC® 250.118(5) Many Styles with Green Grounding Conductor

#### **Maximum Voltage Rating**

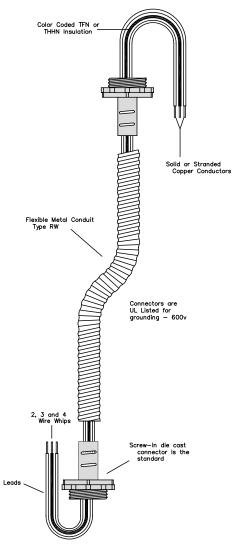
600V

#### **References & Ratings**

• UL 66, 83 and 348, File No. E96572

Description		Part Number	Units per Package	Description		Part Number	Units per Package
Solid Conducto	rs			Stranded Cond	luctors		
3/8 F x 6	18-2	4521-21	30	3/8 F x 6	18-2	4621-21	30
	18-2	4521-30	100		18-2	4621-30	100
	16-2	4511-21	30	] _	16-2	4611-21	30
	16-2	4511-30	100		16-2	4611-30	100
	14-2	4501-21	30	] _	14-2	4601-21	30
	14-2	4501-30	100		14-2	4601-30	100
	12-2	4578-21	30	]	12-2	4678-21	30
	12-2	4578-30	100		12-2	4678-30	100
3/8 F x 6	18-3	4522-21	30	3/8 F x 6	18-3	4622-21	30
	18-3	4522-30	100		18-3	4622-30	100
	16-3	4512-21	30	]	16-3	4612-21	30
-	16-3	4512-30	100		16-3	4612-30	100
	14-3	4502-21	30	]	14-3	4602-21	30
	14-3	4502-30	100	_	14-3	4602-30	100
	12-3	4579-21	30		12-3	4679-21	30
	12-3	4579-30	100		12-3	4679-30	100
3/8 F x 6	18-4	4523-21	30	3/8 F x 6	18-4	4623-21	30
_	18-4	4523-30	100	_	18-4	4623-30	100
	16-4	4513-21	30		16-4	4613-21	30
_	16-4	4513-30	100	_	16-4	4613-30	100
	14-4	4503-21	30		14-4	4603-21	30
_	14-4	4503-30	100	_	14-4	4603-30	100
	12-4	4580-21	30		12-4	4680-21	30
	12-4	4580-30	100		12-4	4680-30	100
1/2 F x 6	14-2	4701-15	15	1/2 F x 6	14-2	4801-15	15
_	14-2	4701-24	50	_	14-2	4801-24	50
	12-2	4704-15	15		12-2	4804-15	15
	12-2	4704-24	50		12-2	4804-24	50
1/2 F x 6	14-3	4702-15	15	1/2 F x 6	14-3	4802-15	15
	14-3	4702-24	50		14-3	4802-24	50
_	12-3	4705-15	15		12-3	4805-15	15
	12-3	4705-24	50		12-3	4805-24	50
1/2 F x 6	14-4	4703-15	15	1/2 F x 6	14-4	4803-15	15
	14-4	4703-24	50		14-4	4803-24	50
	12-4	4706-15	15	1 -	12-4	4806-15	15
	12-4	4706-24	50		12-4	4806-24	50





Whips come with standard 120/208V color THHN conductors but are also available with 277/480V colors if specified on order.

3/8" whips have screw in die cast connectors on the 18AWG, 16AWG & 14AWG and set screw die cast for the 12AWG. 1/2" whips have screw in die cast connectors.

Available with customer specified connectors by special order.

2 conductor is Black, White.

3 conductor is Black, White, Green.

4 conductor is Black, White, Red, Green.

All whips are available in barrels and cartons.

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# **AFC Nonmetallic Whips Type UL**

#### Conduit

Type LFNC-B, Nonmetallic Liquidtight

#### **Conductors**

THHN/THWN 8 & 10 AWG Stranded

#### **Maximum Temperature Rating**

90°C (Dry); 75°C (Wet)

#### Grounding

NEC® 250.118(1)

#### **Maximum Voltage Rating**

600V

#### **References & Ratings**

- UL 83, 1660 and 514B, File Reference E96572
- NEC® 410, 430, 440, 250, 356



Product Core	Trade Size (in)	Length (ft)	No. of Cond.	AWG (Cond. Size)	Put Up			
Non-metallic Liquidtight W	Non-metallic Liquidtight Whips (Standard Configurations)							
8014	1/2"	4'	3	10	10 per box			
8015	1/2"	6'	3	10	10 per box			
8016	3/4"	4'	3	8	10 per box			
8017	3/4"	6'	3	8	8 per box			
8021	1/2"	4'	3	10	20 bulk			
8022	1/2"	6'	3	10	15 bulk			
8023	3/4"	4'	3	8	10 bulk			
8024	3/4"	6'	3	8	10 bulk			

Whips come with Black, Red, Green THHN/THWN conductors.

Other conductor colors available by special request.

All whips come with one straight non-metallic liquidtight connector and on  $90^\circ$  angle non-metallic liquidtight connector.

# Pack N Roll™

# Type MC and AC Cable Dispenser

#### **Description**

Our patented heavy duty cable accessory enables electrical contractors to perform remodel and small construction/service projects with ease.

#### **Catalog Number**

9989-BE

#### **Net Weight**

16.4 Lbs

#### **Dimensions**

19" Diameter 12-13/16" High

#### **Capacity**

250 Ft Coils

- Fast and Easy to Pull without any Tangles
- Reduces Cable Memory
- Stackable
- Eliminates Scrap
- Keeps Cable Organized, Neat and Clean
- Prevents Cable Damage



<sup>\*</sup>Accommodates the majority of AFC's coil products

# **MC Snapit**<sup>™</sup>

# 4" 2-Circuit MC/Low Voltage Stud Strap & 6" 4-Circuit MC/Low Voltage Stud Strap

#### Description

Patented rifled polycarbonate design will hold MC and AC 12/2 through 10/3, eliminating the unsightly sagging you get with other supports. MC Snapit is made from durable hi-impact polycarbonate, and can be used universally. It also includes clips for low voltage cable.

- Sturdy Polycarbonate
- Withstands Harsh Environments
- Fits MC/AC Cable 12/2 thru 10/3
- Suitable for Indoor Use Only
- No Load Rating
- Maximum Operating Temperature Rated 80°C
- UL Listed E471170



Product Code	Description	Inner Carton Count	Master Carton Count	Weight/Inner Carton	Weight/ Master Carton	
Non-metallic Liquidtight Whips (Standard Configurations)						
9994	2-1/2" Three Circuit Stud Strap	120 pcs	720	3.58 lbs	23	
9991	4" Two Circuit Stud Strap	100 pcs	600	2.90 lbs	19	
9997	6" Four Circuit Stud Strap	100 pcs	600	4.85 lbs	30	
9998	Accessory	100 pcs	1000	0.37 lbs	4.5	

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# **Tripod**

#### Description

Three Legged, Collapsible with Black Knob Handscrews Made Out of High Quality Aluminum Alloy

#### **Catalog Number**

#### **Net Weight**

7 Lbs

#### Dimensions

27.5" Height 5" (Collapsed)



# **Barrel Truck**

**Description**Barrel Truck with Footrest

#### **Catalog Number**

9980

#### Dimensions

Wheel Type: 10" X 2 1/2" Cast Aluminum, Mold On Rubber 7/8" Axle 60" Height 24-1/2" Width Product Class: I75 Frame Cap: 1200 Lbs



<sup>\*</sup>Harper is a registered trademark of Harper Trucks





Products are manufactured in accordance with UL, LLC (Underwriters Laboratories) Standards:

Type MC Metal-Clad Cables are manufactured in accordance with UL 1569 Metal-Clad Cables under UL File Number E80042 for use in accordance with NEC® Article 330.

Type AC Armored Cables are manufactured in accordance with UL 4 Armored Cables under UL File Number E7330 for use in accordance with NEC® Article 320.

Flexible Metal Conduits are manufactured in accordance with UL 1 Flexible Metal Conduit under UL File Number E11831 for use in accordance with NEC® Article 348. CSA Group Certified Products are manufactured in accordance with CSA C22.2 Number 56 under File Numbers 15035 and 157782 for use in accordance with the Canadian Electrical Code (CEC).

Type LFMC Flexible Metal Conduit, Liquidtight is manufactured in accordance with UL 360 Liquid-Tight Flexible Metal Conduit under UL File Number E26540 for use in accordance with NEC® Article 350. CSA Group Certified Products are manufactured in accordance with CSA C22.2 Number 56 under File Numbers 51593 and 157782 for use in accordance with the Canadian Electrical Code (CEC).

Type LFNC Flexible Nonmetallic Conduit, Liquidtight is manufactured in accordance with UL 1660 Liquid-Tight Flexible Nonmetallic Conduit under UL File Number E123464 for use in accordance with NEC® Article 356. CSA Group Certified Products are manufactured in accordance with CSA C22.2 Number 227.2.1 under File Numbers 69271 and 157782 for use in accordance with the Canadian Electrical Code (CEC).

**AFC Cable Systems** 

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# **SDS Sheet for AFC Cables**



**SINCE 1926** 



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**Subject:** 

# Safety Data Sheets (SDS) AFC Cable Products

An official notice from OSHA confirms that the electrical products (cables, conduits, fittings, modular wiring, etc.) manufactured by AFC come under the classification of "Articles" under the Hazard Communication Standard. By definition, an article is defined as a product that does not "release or otherwise result in exposure to hazardous chemicals under normal conditions of use." Consequently, the electrical products manufactured by AFC do not require Safety Data Sheets. The lubricants used in the manufacturing of conduits and cables are also covered by OSHA as nonhazardous and are primarily vegetable based materials. Please contact us if you have any additional questions.

# **Installation Instructions for Traditional Type AC & MC Cables**

Armored cable (Type AC) and metal clad cable (Type MC) provide a fast and efficient way of wiring both new construction and remodeling work. Their flexible metal armor provides mechanical protection of the electrical conductors while enabling them to bend around corners. The cables are pre-wired at the factory eliminating the need to pull conductors into a raceway, which in turn greatly reduces the possibility of conductor damage.

The National Electrical Code® has accepted AC and MC cables for decades, with statistics showing that they have an excellent fire safety record.

Because AC & MC cable can be fished for long distances, it is quick and easy to install. Its own weight can carry it between partitions and it can be run without concern for its contact with pipes or other obstructions.

Wire pullers, fish ropes or tapes, dispensers and lubricants are eliminated. AC & MC cable does the job in less space, with fewer bending restrictions as well as less cutting and connecting than most other wiring products.

Armored cable (Type AC) and Metal Clad cable (Type MC) have a flexible metal armor of similar outward appearance, but that is where the similarity ends. There are major differences in construction and uses permitted.

#### **Armored (Type AC) Cable Construction**

As described by the National Electrical Code® Article 320, armored cable Type AC is a "fabricated assembly of insulated conductors in a flexible metallic enclosure."

Type AC cable is manufactured to UL Standard 4. It consists of 2 to 4 copper conductors in sizes 14 AWG to 1 AWG inside an interlocked metal armor of steel or aluminum construction. Type AC cable can have no more than four insulated conductors plus grounding conductors and cannot be manufactured larger than 1 AWG per UL 4.

A 16 AWG aluminum bonding wire is inside of, and in physical contact with, the metal armor providing a low-impedance fault-return path required for the operation of overcurrent protection devices. The bonding wire is unique to AC cable and allows the outer metal armor in conjunction with the bonding wire to be used as an equipment ground.

It is important to remember that the bare bond wire is not an equipment grounding conductor. It is the bond wire that, in combination with the interlocked metal armor, provides a low impedance equipment grounding path.

Each of the copper conductors is covered with a thermoplastic insulation (THHN with a 90°C rating) and are individually wrapped in a moisture resistant, fire retardant paper.

According to NEC® Article 320.40, an insulated (anti-short) bushing is required when installing Type AC cable. It is installed at the time of termination and designed to protect the conductors from damage. AFC provides bushings in bags packaged with the cable.

#### Metal Clad (Type MC) Cable Construction

As described by NEC® Article 330, Metal Clad Type MC cable is a "factory assembly of one or more insulated circuit conductors with or without optical fiber members enclosed in an armor of interlocked metal tape or a smooth or corrugated metallic sheath."

Traditional Type MC cable is manufactured to UL Standard 1569. MC cables have 2 or more solid or stranded conductors in sizes 18 AWG and larger. The number of conductors allowed in an MC cable is not restricted by UL. The conductors may be of copper, aluminum or copper-clad aluminum.

The metal armor may be a smooth tube, a corrugated tube, or an interlocked metal armor. AFC Cable Systems manufactures MC cable with interlocked metal armor and copper conductors. The make-up of AFC Cable Systems' 600 volt interlocked armor traditional MC cable consists of:

- Copper circuit and grounding conductors covered with thermoplastic insulation
- An overall polypropylene cable assembly tape
- An outer galvanized steel or aluminum interlocked armor

Unlike Type AC cable, the armor of interlocked Type MC cable is not an equipment grounding means and traditional Type MC cable requires a bare or green grounding conductor.

#### Differences between AC and traditional MC cables

	TYPE AC CABLE	TYPE MC CABLE
NUMBER OF CONDUCTORS	Limited to a maximum of 4 conductors plus a grounding conductor	Not limited to the number of conductors.
SIZE OF CONDUCTORS	14 AWG to 1 AWG	18 AWG or larger
GROUNDING	Contains a 16 AWG bond wire in constant contact with the metal armor allowing the armor and bond wire combination to be used as an equipment ground.	Does not contain a bonding wire and the armor is not an equipment ground, but supplements the internal grounding conductor equaling one grounding path.
CONDUCTOR WRAPPING	Individual conductors are wrapped in a moisture resistant, fire retardant paper.	Individual conductors are not wrapped in fire Retardant paper but do have an overall polypropylene assembly tape.

Along with these differences in construction, there are also differences in the uses permitted for these cables as discussed previously. (See pages 14 and 15 for installation details on new MCI-A type MC cables.)

#### **Green Hospital Grade Type Cable**

This additional ground allows HCF cables to be used in patient care areas of health care facilities (other than hazardous locations) including hospitals, nursing homes, dental offices, outpatient facilities and medical centers per NEC® 517.13.

The separate green grounding conductor satisfies the requirement of Article 517 that:

"In an area used for patient care, the grounding terminals of all receptacles and all non-current-carrying conductive surfaces of fixed electric equipment likely to become energized that are subject to personal contact, operating at over 100 volts, shall be grounded by an insulated copper conductor."

The armor and bonding strip combination satisfies the requirement that:

"...all branch circuits serving patient care areas shall be provided with a ground path for fault current by installation in a metal raceway system or cable assembly. The metal raceway system, or cable armor or sheath assembly, shall itself qualify as an equipment grounding return path in accordance with Section 250.118."

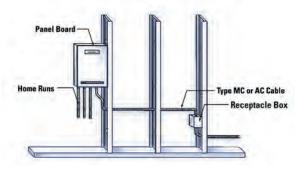
(NOTE: Read NEC\* 517.30(C)(3)(3) for complete details on wiring of emergency healthcare circuits).

#### **Installing AC & MC Cable**

Type AC & MC cable is installed after the rough-in phase of locating and setting all boxes and enclosures. Rough-in occurs when all the interior and exterior walls are framed but before the sheet rock is installed.

The first step in the rough-in phase is to determine the number of home run circuits and from where the wiring will originate. Once this is done, time should be taken to determine the best and shortest routes for each cable run. Long runs of spider web type routing not only require more cable, but also increase voltage drop. This is very important to consider when locating boxes for receptacles, lights and switches. If long runs are required, oversizing the circuit conductors is recommended to limit voltage drop.

#### MC or AC Cable Installation



AC & MC cable is available on reels and in coils. If using a reel, simply draw the cable from the end of the reel. If using a coil, draw the cable from the center of the coil to prevent kinking.



#### **Bridging Cable Across Open Spaces**

In general, AC and MC cable must hug the surface it is wired over. The NEC® prohibits bridging across open spaces with the following five exceptions:

- 1) When the cable is fished.
- 2) When flexibility is required, a box may be installed near a motor or appliance using a short piece of free AC cable up to 24 inches long, between the box and motor or appliance.
- 3) Lengths of not more than 6 feet from the last point of support for connections within an accessible ceiling to lighting fixtures or equipment.
- 4) Where installed in cable trays.
- 5a) For Type AC cable in other than vertical runs through holes or notches in framing members where distance between members does not exceed 4½ feet and is securely fastened in place by an approved means within 12 inches of each box, cabinet, conduit body or other cable termination.
- 5b) For Type MC cable in other than vertical runs through holes or notches in framing members where the distance between members does not exceed 6 feet. Cables containing four or fewer conductors sized no larger than AWG 10 must be secured within 12 inches of each box, cabinet, fitting or other cable termination.

#### **Bending Radius**

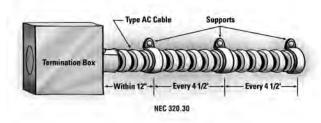
Care should be taken not to exceed the bending radius of the cables when routing around corners. According to NEC® Article 320.24, for AC cable, the radius of the curve of the inner edge of any bend shall not be less than 5 times the diameter of the cable. NEC® Article 330.24(B) states that for MC Cable, the radius shall not be less than 7 times the external diameter of the cable.



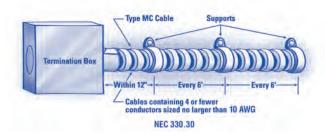
#### **Supporting AC & MC Cables**

All cable runs must be continuous from outlet to outlet. According to NEC® Article 320.30, AC cable must be supported and secured at intervals of 41/2 feet or less (unless routed through a framing member) and within 12 inches of every termination.

#### Supporting Type AC Cable



#### Supporting Type MC Cable



As noted, AC and MC cable support requirements are waived when the cable is fished. This is a major advantage of AC and MC cable in remodeling work over other wiring products that cannot be fished.

AC and MC cable may also be installed in cable tray, per NEC® Article 392. Cable is only required to be secured in this installation for vertical runs.

#### **Terminating AC & traditional MC Cables**

When terminating or splicing at a junction, outlet or switch box, cut the cable so that 6 inches of free conductor is left for connections or splices. Use an approved connector and insure a proper bond by firmly tightening the connectors to both the

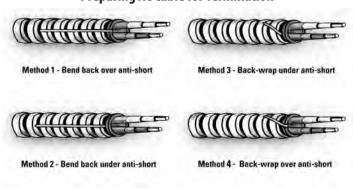
box and the cable. Please note, set screw connectors cannot be used with aluminum armor Type AC cable.

To terminate an AC cable, insert an antishort bushing and bend back the exposed length of bonding wire. The bonding wire can be bent back before or after the bushing is inserted. There are several techniques used for this procedure as pictured on this page.



Insert the cable into the connector and secure the connector into the box. Be sure that the anti-short bushing is plainly visible in the connector for easy inspection. The same procedure is followed for traditional MC cable with the exception that there is no bonding wire. Although anti-short bushings are only required by the NEC® for AC cable, some manufacturers supply them for both cable types in the event that local codes override the NEC®.

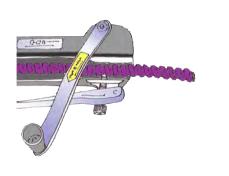
#### **Preparing AC Cable for Termination**



(Bond wire may also be cut off at the end of the armor)

Terminating AC & traditional MC Cables

# Installation Instructions MC-Quik® Type MC Cable



1. Cut the cable to length needed and remove armor approximately 6-inches from end using a rotary cutting tool designed for use with Interlocked Metal-Clad Cable and remove armor.



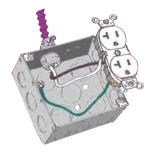
2. Separate the bare aluminum grounding/bonding conductor from the cable assembly by folding the bare aluminum grounding/bonding conductor back approximately 120°.



3. Cut the aluminum bare grounding/bonding conductor flush with the end of the armor using a suitable tool.



4. Use a fitting identified and listed\* for use with a Metal-Clad Interlocking Armor Ground Cable (Type MCI-A), install the fitting per the manufacturer's instructions.

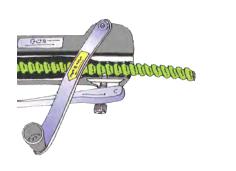


5. Bond the cable, fitting, box and wiring devices, as applicable, to provide an effective ground-fault current path.

#### NOTES

- 1. The combination of the metal armor and the bare aluminum grounding/bonding conductor is the effective ground-fault path in accordance with NEC® 250.118(10(b).
- 2. OPTIONAL INSTALLATION METHOD: Although not required, the bare aluminum grounding/bonding conductor may be terminated inside the box or enclosure provided the splices, connectors or terminations are suitable for the material of the conductor(s) to be used per NEC® 110.14.
- 3. \*The fitting must be listed and marked for use with "Metal-Clad Interlocking Ground Cable Type" or "MCI-A" where the armor is a component of the equipment grounding path.
- 4. Cable has one grounding means armor/bond-ground wire combination.

# Installation Instructions MC-Stat® Type MC Cable



 Cut the cable to length needed and remove armor approximately 6-inches from end using a rotary cutting tool designed for use with Interlocked Metal-Clad Cable and remove armor.



2. Separate the bare aluminum grounding/bonding conductor from the cable assembly by folding the bare aluminum grounding/bonding conductor back approximately 120°.



3. Cut the bare aluminum grounding/bonding conductor flush with the end of the armor using a suitable tool.



4. Use a fitting identified and listed\* for use with a Metal-Clad Interlocking Armor Ground Cable (Type MCI-A), install the fitting per the manufacturer's instructions.



5. Bond the cable, fitting, box and wiring device, as applicable, to provide an effective ground-fault current path to comply with NEC® 517.13(A). Terminate the Green equipment grounding conductor to the device, the grounding screw or other grounding connection to comply with NEC® 517.13(B).

#### **NOTES**

- 1. The combination of the metal armor and the bare aluminum grounding/bonding conductor is the effective ground-fault path in accordance with NEC® 250.118(10)(b).
- 2. OPTIONAL INSTALLATION METHOD: Although not required, the bare aluminum grounding/bonding conductor may be terminated inside the box or enclosure provided the splices, connectors or terminations are suitable for the material of the conductor(s) to be used per NEC® 110.14.
- 3. \*The fitting must be listed and marked for use with "Metal-Clad Interlocking Ground Cable Type" or "MCI-A" where the armor is a component of the equipment grounding path.
- 4. The green insulated equipment grounding conductor is an effective ground-fault current path in accordance with NEC® 250.118(1).
- 5. Cable has two (2) grounding means:
  - (1) Armor/Bond-ground wire combination in accordance with 250.118(10)(b)
  - (2) Green insulated grounding conductor in accordance with 250.118(1).

AFC Cable Catalog www.afcweb.com



# **AFC's Custom Armoring Options**

AFC offers a wide range of custom armoring options to suit a variety of application specific needs. Custom Armoring Services from AFC gives you better field performance by adding a layer or more with protective armors. Whether the application calls for power or fiber optic armor protection, electrical distribution or data applications, AFC is ready to service your requirements.

AFC's Custom Armoring Services provide steel strength protection and more. We can extrude color coded non-metallic coverings for moisture protection, plenum and riser environments and/or extremes in temperature, along with the mechanical strength of steel. Whatever your requirements may be, AFC is ready with quick lead times and quality.

AFC delivers and is dedicated to providing improved field productivity, minimized down times and easy cable identification.

Call today to find out about AFC's Custom Armoring Services – 508-985-1233

#### **CPID Cable Protection**

Cable Protection Identification (CPID $^{\text{m}}$ ) refers to AFC's process of adding a protective inter-locking armor to customer supplied core (wire, cable or fiber optic).

As an option, an outer jacket of specially formulated PVC can be added to provide further protection.

CPID can often eliminate the costly and time consuming process of installing cable into conventional raceways.

Cables can be combined to further reduce installation costs.



Notes	

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# **UNISTRUT®**



#### Cable Systems Cable Tray Systems Framing Systems Conduit Systems **Aluminum Tray Steel Conduit** AC & MC Cable Channel • E-Z Pull® & True Color™ EMT MC Luminary Cable<sup>®</sup> Aluminum Ladder Tray Steel Channel MC Luminary EMT Elbows Aluminum Trof Tray Aluminum Channel Jacketed Cable® IMC · Aluminum Channel Stainless Steel Channel MC Luminary Multizone • Rigid (GRC) Aluminum Fittings Lite™ Cable Fiberglass Channel • GRC Elbows, Nipples MC Luminary HCF™ Junior Channel Steel Tray Lite Cable & Couplings Steel Ladder Tray Fittings & Accessories • MC TUFF® Lightweight **Kwik Products** Steel (MC) Cable Steel Trof Tray • Beam Clamps Kwik-Fit® EMT • MC TUFF® IG (MC) Cable Steel Channel Channel Fittings (built-in set-screw coupling) with Isolated Ground Steel Fittings • Pipe & Conduit Clamps MC Lite<sup>®</sup> Metal Clad Super Kwik-Couple<sup>™</sup> IMC/GRC · Threaded Rods Aluminum (MC) Cable I-Beam™ Cable Tray (built-in rotating coupling) • MC-Quik® (MC) Cable · Fiberglass Fittings I-BEAM™ Aluminum Tray Kwik-Fit® Compression EMT MC-Stat<sup>®</sup> (MC) Cable Electrical Fittings I-BEAM<sup>™</sup> Accessories **Aluminum Conduit** • MC-Plus® (MC) Cable · Concrete Inserts Rigid HCF-90<sup>®</sup> & HCF-Lite<sup>™</sup> Fiberglass Trav · Trolley Systems · Aluminum Elbows AC-90<sup>®</sup> & AC-Lite<sup>™</sup> Cope-glas<sup>™</sup> • Fire Alarm® Cable Aluminum Couplings **Finishes** Fiberglass Tray **PVC** Home Run Cable<sup>®</sup> Fiberglass Fittings Pre-Galvanized Channel Parking Deck/Lot Cable<sup>®</sup> • Schedule - 40 & 80 Rigid PVC Fiberglass Support Systems Green Channel Super Neutral Cable<sup>®</sup> · EB/DB Duct • Hot-Dip Galv. Channel Other Cope Products Flexible Conduit PVC Elbows Gold Channel Covers • LIQUID-TUFF® Liquid- Fittings, Spacers & Unistrut Defender™ Barrier Strips Tight Flexible Conduit Accessories Channel Grounding Equipment · Full and Reduced Wall **Gratings** · Seismic Hold-Downs Flexible Metal Conduit **Roof Walks** Support Systems **AFC Accessories Solar Products** · Light, Power, & Appliance Whips Wire Basket Telestrut® Telescoping · Bare Armored Ground Wire Basket Tray Strut System Pack N Roll™ · Wire Basket Accessories MC Snapit<sup>™</sup> UniPier® Rooftop Tripod **Supports** · Hand Cart Konkore Columbia-MBF™ **Heritage**Plastics

Conduit Systems



## **Modular Wiring** Systems

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- · Fittings, Spacers & Accessories

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**Fittings** 

- Liquid-Tight Metallic & Non-Metallic Fittings
  - MC/AC Cable Connectors

## Canada All items listed above, plus

 Aluminum Nipples and except for the following:

- IMC
- Kwik-Couple IMC
- PVC

**PVC** 

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