Type MC-PCS-AIA 600 Volt Copper

PVC/Nylon conductors with Jacketed Pair Signal Cable under AIA Armor

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Features

UL Listed as MC.

Single power and control conductors are dual rated THHN/THWN-2 sizes 12 and 10 AWG, meeting 90 °C in Wet and Dry Locations.

Additional isolated ground

Signal cable are UL Listed TFN conductors size 16 AWG with an overall PVC jacket.

All Singles meet the VW-1 flame test.

Insulation is rated Gas and Oil resistant II.

Cables is rated for CT use.

RoHS-2 Compliant.

Eliminates need to pull separate cables for power and control/ signal cables.

Application

For services, feeders, and branch circuits.

Suitable for power, lighting, control, and signal circuits requiring the use of signal cable in multi-residential, commercial, institutional and industrial applications.

Ideal for luminary or LED controls and for SMART buildings.

Exposed or concealed.

In cable tray and approved raceway.

In dry locations and embedded in plaster finish on brick or other masonry except in damp or wet locations.

Per NEC 300.22 (C), in environmental air-handling spaces.

Class I Div. 2, Class II Div 2, & Class III Div. 1 Hazardous locations, in accordance with NEC.

Standards

UL 1569 Metal Clad cables.

UL 66 Fixture Wire

UL 83 Thermoplastic-Insulated Wires and cables.

UL 1569 MC Cable

UL 1685 Vertical-Tray Fire-Propagation and Smoke-Release Test for Electrical and Optical-Fiber Cables.

UL 1479 Fire Test of Penetration Firestops

UL 2556 Wire and Cable Test methods

NFPA70 National Electrical Code (NEC), Article 330: Metal-Clad Cable, Type MC.

Specifications

ICEA S-95-658/NEMA WC70

Maximum operating voltage:

- 600 volts

Maximum conductor operation temperatures:

- 90 °C Dry

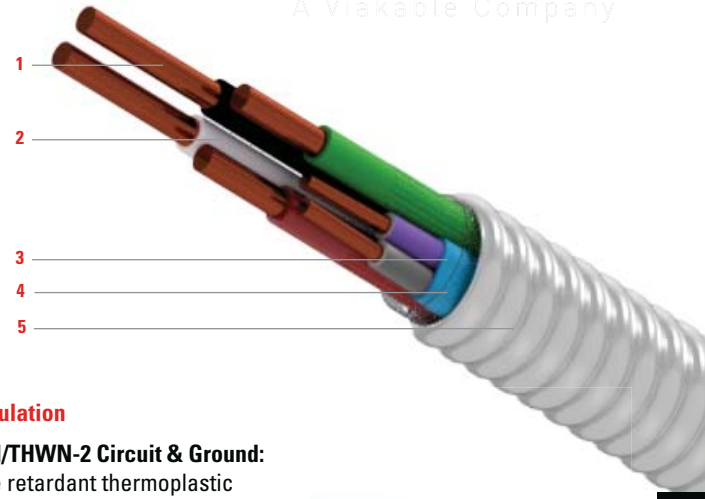
Engineering Information

1. Conductor: Soft annealed uncoated copper solid wire per ASTM B3 , or soft annealed uncoated copper Class B or C concentric stranding or unilay (19 wires) per ASTM B8, or combination unilay per ASTM B787.

Sizes:

2 to 4 Circuit & Ground Conductors: 12 and 10 AWG Solid or Stranded.

2 Signal Conductors: 16 AWG Solid



2. Insulation

THHN/THWN-2 Circuit & Ground: Flame retardant thermoplastic polyvinyl chloride (PVC) and nylon covering.

TFN Signal: Purple & Gray Color conductors with flame retardant thermoplastic polyvinyl chloride (PVC) and nylon covering.

Conductor ID:

# Cdr.	Color Code			Ground	Signal Jacketed Pair
12-2	BK	WE		GN	Gray Purple
12-2	BE	WE		GN	Gray Purple
12-2	RD	WE		GN	Gray Purple
12-2	BN	-	GY	GN	Gray Purple
12-2	OE	-	GY	GN	Gray Purple
12-2	YW	-	GY	GN	Gray Purple
12-3	BK	WE	RD	GN	Gray Purple
12-3	BN	OE	GY	GN	Gray Purple
10-2	BK	WE		GN	Gray Purple
10-2	BN	-	GY	GN	Gray Purple

3. Jacketed Signal Pair: Twisted pair of TFN conductors jacketed with a blue PVC jacket.

4. Assembly: Arrangement of power & control THHN/THWN-2 conductors for phase and ground and a jacketed signal cable with a twisted pair of TFN conductors are cabled together and wrapped with a binder tape with print legend.

5. Armor: Aluminum interlocked armor, applied over the covering binder tape.

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Technical Data

600 V Copper PVC/Nylon conductors with Jacketed Pair Signal Cable under AIA Armor

Conductor		Grounding Wire	Nominal O.D.	Mass
Size AWG / # Conductors	Power Conductor Colors Signal Pair Colors	Insulated Ground (Green)	in	lb/kft
Solid Conductors (120/208 V Colors)				
12-2 16-2	BLACK/WHITE Purple/Grey	12	0.636	160
12-2 16-2	BLUE/WHITE Purple/Grey	12	0.636	160
12-2 16-2	RED/WHITE Purple/Grey	12	0.636	160
12-3 16-2	BLACK/RED/WHITE Purple/Grey	12	0.657	184
Solid Conductors (277/480 V Colors)				
12-2 16-2	BROWN/GREY Purple/Grey	12	0.636	160
12-2 16-2	ORANGE/GREY Purple/Grey	12	0.636	160
12-2 16-2	YELLOW/GREY Purple/Grey	12	0.636	160
12-3 16-2	BROWN/ORANGE/GREY Purple/Grey	12	0.657	184

The above data are approximate and subject to normal manufacturing tolerances. Where required, the compatibility with glands, connectors and accessories should be verified using actual dimensions of the product. Other sizes available upon request.
Ampacities: Refer to beginning of section.

Color Abbreviations							
Black	White	Brown	Orange	Yellow	Purple	Grey	Green
BK	WE	BN	OE	YW	PE	GY	GN

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