

MC-PCS Duo™ PVC Jacketed Power & Control/Signal Cable



Copper Power & Control/Signal Conductors. THHN/THWN & TFN Insulated Singles. Green Insulated Grounding Conductor. Power: 12 AWG & 10 AWG Copper THHN/THWN. Signal: 16 AWG Copper TFN. UL Listed. 600 Volts. Rated VW-1. Lightweight Aluminum Interlocked Armor with Overall PVC Jacket. Sunlight Resistant. Direct Burial. Southwire® PVC Jacketed MC-PCS Duo™ Cable meets the NEC and UL listing requirements for combining power/lighting circuits and Class 2 or Class 3 signal or control circuits in the same cable.

APPLICATIONS

Suitable for use as follows:

- Suitable for Wet Location per NEC 330.10(11)
- Direct burial applications, installation in concrete and where exposed to cinder fills, strong chlorides, caustic alkalis, or vapors of chlorine or of hydrochloric acids.
- Circuits for branch power distribution in commercial, industrial, institutional, and multi-residential buildings.
- Power, lighting, control, and signal circuits.
- Fished or embedded in plaster.
- Concealed or exposed installations.
- Places of Assembly per NEC 518.4 and theaters per NEC 520.5.
- Installation in cable tray and approved raceways.
- Under raised floors for information technology equipment conductors and cables per NEC 645.5(D) & 645.5(D)(2).
- Class I Div. 2, Class II Div. 2, & Class III Div. 1 Hazardous Locations.

STANDARDS & REFERENCES

MC-PCS Duo™ PVC Jacketed Cable meets or exceeds the requirements of:

- UL 83
- UL 1569 (Including new Sections 9.4, 40.1(q), and 41.1(r) as detailed in the latest UL 1569 CRD)
- UL 1685
- Federal Specification A-A59544 (formerly J-C-30B)
- NFPA 70 (National Electrical Code), Article 330 and 725.136(I)(1) & (2)
- Listed for use in UL 1, 2 and 3 Hour Through Penetration Firestop Systems
- Passes both "UL Test" & "FT4/IEEE 1202" (70,000 Btu/hr) Vertical Cable Tray Flame Test
- REACH/RoHS-2 (Chemical Limit) Compliant

CONSTRUCTION

MC-PCS Duo™ PVC Jacketed Cable is constructed with 12 AWG or 10 AWG CU Type THHN/THWN power and ground conductors along with a control conductor assembly composed of a 30 mil PVC jacket covering two 16 AWG CU Type TFN signal conductors. The phase conductors, ground, and signal conductor assembly are cabled together and a binder tape bearing the print legend is wrapped around the assembly. Aluminum interlocking armor is applied over the taped assembly. A sunlight resistant, direct burial rated PVC Jacket is applied over the armor.



| CONDUCTOR SIZE AND COLORS | GROUNDING SIZE AND COLOR | STOCK NUMBER | | WEIGHT (LBS/1000') | OVERALL DIAMETER (INCHES) |
|---|--------------------------|--------------|--------------|--------------------|---------------------------|
| | | COIL (250') | REEL (1000') | | |
| SOLID CONDUCTOR COLORS 120/208V | | | | | |
| 12-2 SOLID (BLACK/WHITE) 16-2 SOLID (PURPLE/PINK) | 12 SOLID (GREEN) | 59-61-81-01 | 59-61-81-02 | 213 | .708 |
| 12-2 SOLID (RED/WHITE) 16-2 SOLID (PURPLE/PINK) | 12 SOLID (GREEN) | 59-61-82-01 | 59-61-82-02 | 213 | .708 |
| 12-2 SOLID (BLUE/WHITE) 16-2 SOLID (PURPLE/PINK) | 12 SOLID (GREEN) | 59-61-83-01 | 59-61-83-02 | 213 | .708 |
| 12-3 SOLID (BLACK/RED/WHITE) 16-2 SOLID (PURPLE/PINK) | 12 SOLID (GREEN) | 59-61-87-01 | 59-61-87-02 | 242 | .743 |
| 10-2 SOLID (BLACK/WHITE) 16-2 SOLID (PURPLE/PINK) | 10 SOLID (GREEN) | 59-61-89-01 | 59-61-89-02 | 263 | .763 |
| STRANDED CONDUCTOR COLORS 120/208V | | | | | |
| 12-2 STRANDED (BLACK/WHITE) 16-2 SOLID (PURPLE/PINK) | 12 STRANDED (GREEN) | 59-61-91-01 | 59-61-91-02 | 220 | .723 |
| 12-3 STRANDED (BLACK/RED/WHITE) 16-2 SOLID (PURPLE/PINK) | 12 STRANDED (GREEN) | 59-63-51-01 | 59-63-51-02 | 258 | .798 |
| SOLID CONDUCTOR COLORS 277/480V | | | | | |
| 12-2 SOLID (BROWN/PINK) 16-2 SOLID (PURPLE/PINK) | 12 SOLID (GREEN) | 59-61-84-01 | 59-61-84-02 | 213 | .708 |
| 12-2 SOLID (ORANGE/PINK) 16-2 SOLID (PURPLE/PINK) | 12 SOLID (GREEN) | 59-61-85-01 | 59-61-85-02 | 213 | .708 |
| 12-2 SOLID (YELLOW/PINK) 16-2 SOLID (PURPLE/PINK) | 12 SOLID (GREEN) | 59-61-86-01 | 59-61-86-02 | 213 | .708 |
| 12-3 SOLID (BROWN/ORANGE/PINK) 16-2 SOLID (PURPLE/PINK) | 12 SOLID (GREEN) | 59-61-88-01 | 59-61-88-02 | 242 | .743 |
| 10-2 SOLID (BROWN/PINK) 16-2 SOLID (PURPLE/PINK) | 10 SOLID (GREEN) | 59-61-90-01 | 59-61-90-02 | 263 | .763 |
| STRANDED CONDUCTOR COLORS 277/480V | | | | | |
| 12-2 STRANDED (BROWN/PINK) 16-2 SOLID (PURPLE/PINK) | 12 STRANDED (GREEN) | 59-61-92-01 | 59-61-92-02 | 220 | .723 |
| 12-3 STRANDED (BROWN/ORANGE/PINK) 16-2 SOLID (PURPLE/PINK) | 12 STRANDED (GREEN) | 59-63-53-01 | 59-63-53-02 | 258 | .798 |
| Consult NEC 310.15 for ampacities Other constructions available upon request | | | | | |

FEATURES

The Power of Connections.™



- Full compliance with NEC 330, NEC 725, and UL 1569
- 16 AWG signal wiring for 0-10V dimming.
- Available in 250' coils or 1000' reels
- Available with steel armor
- UL Classified 1, 2, and 3 hour Through Penetration Firestop Systems: W-J-3037, W-L-3110, W-L-3113, W-L-3117, W-L-3120, W-L-3121, W-L-3160, C-AJ-3115, C-AJ-3140, C-AJ-3142, C-AJ-3145, C-AJ-3173, C-AJ-3202, C-AJ-4065, C-AJ-4066, F-C-3038.
- Anti-short bushings are not required for use with Type MC Cable per the NEC and UL.

NEC TABLE 310.15(B)(16)- ALLOWABLE AMPACITY FOR 600V CONDUCTORS

| SIZE AWG OR KCMIL | TEMPERATURE RATING OF CONDUCTOR | | |
|--|---------------------------------|---|---|
| | 60°C (140°F) | 75°C (167°F) | 90°C (194°F) |
| | Types: TW, UF | Types: RHW, THHW, THW, THWN, XHHW, USE, ZW | Types: TBS, SA, SIS, RHH, RHW-2, THHN, THHW, THW-2, THWN- 2, USE-2, XHH, XHHW, XHHW-2, ZW-2 |
| COPPER | | | |
| 18 | - | - | 14 |
| 16 | - | - | 18 |
| 14 | 15 | 20 | 25 |
| 12 | 20 | 25 | 30 |
| 10 | 30 | 35 | 40 |
| 8 | 40 | 50 | 55 |
| 6 | 55 | 65 | 75 |
| 4 | 70 | 85 | 95 |
| 3 | 85 | 100 | 115 |
| 2 | 95 | 115 | 130 |
| 1 | 110 | 130 | 145 |
| 1/0 | 125 | 150 | 170 |
| 2/0 | 145 | 175 | 195 |
| 3/0 | 165 | 200 | 225 |
| 4/0 | 195 | 230 | 260 |
| 250 | 215 | 255 | 290 |
| 300 | 240 | 285 | 320 |
| 350 | 260 | 310 | 350 |
| 400 | 280 | 335 | 380 |
| 500 | 320 | 380 | 430 |
| 600 | 350 | 420 | 475 |
| 700 | 385 | 460 | 520 |
| 750 | 400 | 475 | 535 |
| 800 | 410 | 490 | 555 |
| 900 | 435 | 520 | 585 |
| 1000 | 455 | 545 | 615 |
| 1250 | 495 | 590 | 665 |
| 1500 | 525 | 625 | 705 |
| 1750 | 545 | 650 | 735 |
| 2000 | 555 | 665 | 750 |
| Per NEC 310.15(B)(5), the ampacity of 4/C cables shall be reduced by a factor of 0.80 when the neutral is considered a current-carrying conductor. | | | |

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