

# 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(l)(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.



The Power of Connections.™



Southwire®

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