

3/C CU 600V XLPE XHHW-2 AIA PVC Power Cable With Ground. Silicone Free.

Type MC Power Cable 600Volt Three Conductor Copper, Cross Linked Polyethylene (XLPE) insulation XHHW-2 Aluminum Interlocked Armor (AIA), Polyvinyl Chloride (PVC) Jacket with 1 Bare CU Ground. Silicone Free.

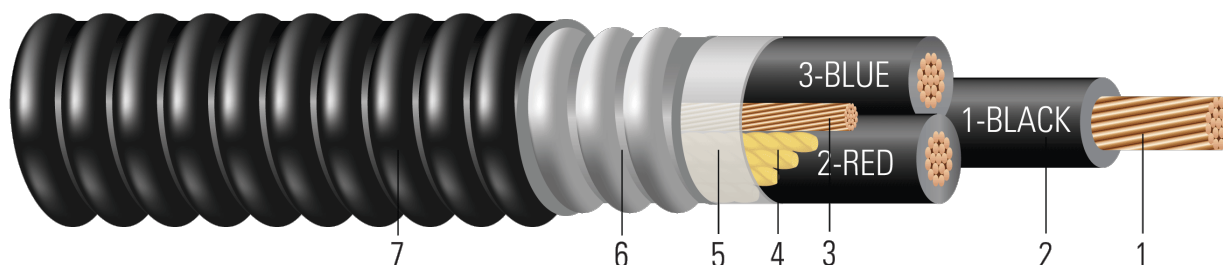


Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** Class B compressed stranded bare copper per ASTM B3 and ASTM B8
2. **Insulation:** Cross Linked Polyethylene (XLPE) Type XHHW-2
3. **Grounding Conductor:** Class B compressed stranded bare copper per ASTM B3 and ASTM B8
4. **Filler:** Paper filler (cable size 8 & 6 uses Polypropylene filler)
5. **Binder:** Polypropylene tape
6. **Armor:** Aluminum Interlocked Armor (AIA)
7. **Overall Jacket:** Polyvinyl Chloride (PVC) Jacket

APPLICATIONS AND FEATURES:

Southwire's 600 Volt Type MC power cables are suited for use in wet and dry areas, conduits, ducts, troughs, trays, direct burial, aerial supported by a messenger, and where superior electrical properties are desired. These cables are capable of operating continuously at the conductor temperature not in excess of 90°C for normal operation in wet and dry locations, 130°C for emergency overload, and 250°C for short circuit conditions. For uses in Class I, II, and III, Division 2 hazardous locations per NEC Article 501 and 502. Silicone Free.

SPECIFICATIONS:

- ASTM B3 Standard Specification for Soft or Annealed Copper Wire
- ASTM B8 Concentric-Lay-Stranded Copper Conductors
- UL 44 Thermoset-Insulated Wires and Cables
- UL 1309 Marine Shipboard Cable
- UL 1569 Metal-Clad Cables
- UL 1685 FT4 Vertical-Tray Fire Propagation and Smoke Release Test
- ICEA S-58-679 Control Cable Conductor Identification Method 3 (1-BLACK, 2-RED, 3-BLUE)
- ICEA S-58-679 Control Cable Conductor Identification Method 4
- ICEA S-95-658 (NEMA WC70) Power Cables Rated 2000 Volts or Less for the Distribution of Electrical Energy
- IEEE 1202 FT4 Vertical Tray Flame Test (70,000 Btu/hr) and ICEA T-29-520 - (210,000 Btu/hr)
- ABS Listed as CWC MC



SAMPLE PRINT LEGEND:

{SQFTG_DUAL} SOUTHWIRE MASTER-DESIGN {UL} 3/C (1 AWG) XX.Xmm2 CU XX MILS XLP 600 VOLTS GW 1 X X AWG CU TYPE MC FOR CT USE SUN. RES. DIRECT BURIAL 90{D}C USA -- {NOM}-ANCE Tipo MC XHHW-2 CT FT4

Table 1 – Weights and Measurements

Stock Number	Cond. Size	Diameter Over Conductor	Insul. Thickness	Diameter Over Insulation	Ground	Diameter Over Armor	Jacket Thickness	Approx. OD	Copper Weight	Approx. Weight
	AWG/ Kcmil	inch	mil	inch	No. x AWG	inch	mil	inch	lb/1000ft	lb/1000ft
606939	8	0.139	45	0.229	1 x 10	0.705	50	0.805	187	404
606947	6	0.174	45	0.264	1 x 8	0.781	50	0.881	297	547
606954◊	4	0.221	45	0.311	1 x 8	0.881	50	0.981	442	736
671892	3	0.247	45	0.337	1 x 6	0.946	50	1.046	574	888
560466◊	2	0.277	45	0.367	1 x 6	1.003	50	1.103	703	1054
550801	1	0.321	55	0.431	1 x 6	1.141	50	1.251	865	1260
560474◊	1/0	0.360	55	0.470	1 x 6	1.225	50	1.325	1069	1534
560482◊	2/0	0.404	55	0.514	1 x 6	1.320	50	1.420	1327	1841
890339◊	3/0	0.454	55	0.564	1 x 4	1.428	50	1.528	1700	2272
383679◊	4/0	0.510	55	0.620	1 x 4	1.549	60	1.669	2110	2779
601377	250	0.558	65	0.688	1 x 4	1.696	60	1.816	2469	3240
383646◊	350	0.661	65	0.791	1 x 3	2.019	60	2.139	3440	4442
380618◊	500	0.789	65	0.919	1 x 2	2.295	75	2.445	4885	6144
582274	500	0.789	65	0.919	1 x 4/0	2.295	75	2.527	5338	6634
890391	600	0.866	80	1.026	1 x 4/0	2.526	75	2.676	6222	7573
890405	750	0.968	80	1.128	1 x 1	2.746	75	2.896	7278	8933

All dimensions are nominal and subject to normal manufacturing tolerances

◊ Cable marked with this symbol is a standard stock item

† Ampacities are based on Table 310.16 of the NEC 2020 Edition. Ampacities of insulated conductors rated up to and including 2000 Volts with not more than three current-carrying conductors in raceway, cable or direct buried based on ambient temperature of 30°C (86°F). Ampacities have been adjusted for more than three current-carrying conductors based on Table 310.15(C) 1.



Table 2 – Electrical and Engineering Data

Stock Number	Cond. Size	Min Bending Radius	Max Pull Tension	DC Resistance @ 25°C	AC Resistance @ 90°C	Inductive Reactance @ 60Hz	Allowable Ampacity At 60° C†	Allowable Ampacity At 75° C†	Allowable Ampacity At 90° C†
	AWG/ Kcmil	inch	lb	Ω/1000ft	Ω/1000ft	Ω/1000ft	Amp	Amp	Amp
606939	8	5.6	396	0.652	0.815	0.033	40	50	55
606947	6	6.2	630	0.411	0.514	0.031	55	65	75
606954◇	4	6.9	1002	0.258	0.323	0.030	70	85	95
671892	3	8.1	1002	0.205	0.256	0.029	85	100	115
560466◇	2	7.7	1593	0.162	0.203	0.028	95	115	130
550801	1	8.7	2009	0.129	0.162	0.028	110	130	145
560474◇	1/0	9.3	2534	0.102	0.128	0.028	125	150	170
560482◇	2/0	9.9	3194	0.081	0.102	0.027	145	175	195
890339◇	3/0	10.7	4027	0.064	0.081	0.027	165	200	225
383679◇	4/0	11.7	5078	0.051	0.064	0.026	195	230	260
601377	250	12.7	6000	0.043	0.055	0.027	215	255	290
383646◇	350	15.0	8400	0.031	0.040	0.026	260	310	350
380618◇	500	17.1	12000	0.022	0.029	0.025	320	380	430
582274	500	17.1	12000	0.022	0.029	0.025	320	380	430
890391	600	18.7	14400	0.018	0.024	0.026	350	420	475
890405	750	20.3	18000	0.014	0.020	0.025	400	475	535

† Ampacities are based on Table 310.16 of the NEC 2020 Edition. Ampacities of insulated conductors rated up to and including 2000 Volts with not more than three current-carrying conductors in raceway, cable or direct buried based on ambient temperature of 30°C (86°F). Ampacities have been adjusted for more than three current-carrying conductors based on Table 310.15(C) 1.

