

3/C CU 600V XLPE XHHW-2 ARMOR-X PVC Power Cable With Ground VFD

Type MC-HL Power Cable 600Volt Three Conductor Copper, Cross Linked Polyethylene (XLPE) insulation XHHW-2 Continuous Corrugated Welded Armor (Armor-X), Polyvinyl Chloride (PVC) Jacket with 3 Bare CU Ground

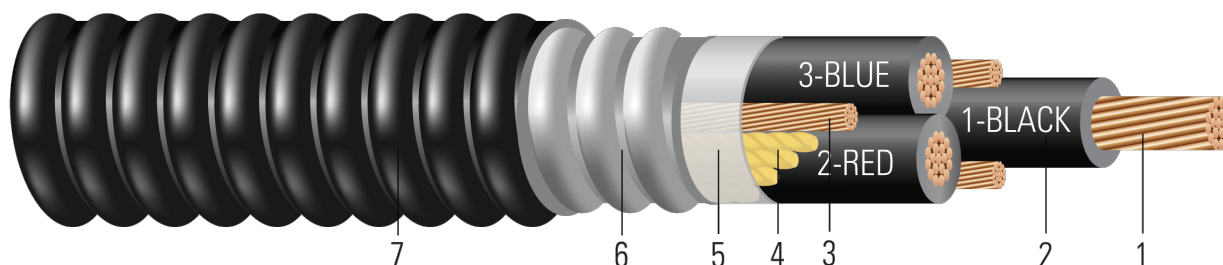


Image not to scale. See Table 1 for dimensions.

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:** Continuous Corrugated Welded Armor (Armor-X)
7. **Overall Jacket:** Polyvinyl Chloride (PVC) Jacket

APPLICATIONS AND FEATURES:

Southwire's 600 Volt Type MC-HL Armor-X® 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, 250°C for short circuit conditions, and -50°C for cold bend. For uses in Class I, II, and III, Division 1 and 2 hazardous locations per NEC Article 501, 502, and 503. Suitable for VFD application.

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 1569 Metal-Clad Cables
- UL 1685 FT4 Vertical-Tray Fire Propagation and Smoke Release Test
- CSA C22.2 No. 123 Metal sheathed cables RA90-HL
- 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)



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SAMPLE PRINT LEGEND:

{SQFTG_DUAL} SOUTHWIRE MASTER-DESIGN ARMOR-X {UL} TYPE MC-HL 3/C XXX KCMIL (XXX{mm²}) CU XHHW-2 GW 3 X X AWG 90{D}C JACKET -40{D}C SUN. RES. DIR. BUR. FOR CT USE 600V IEEE1202/FT4 -- {CSA} RA90-HL AG14 XLPE -40 {D}C 600V FT4 SR 90{D}C -- {NOM}-ANCE Tipo MC XHHW-2 CT FT4 -- VFD USA

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
550593◇	8	0.139	45	0.229	3 x 14	0.700	50	0.800	193	399
890513◇	6	0.174	45	0.264	3 x 12	0.790	50	0.890	307	547
890514◇	4	0.221	45	0.311	3 x 12	0.920	50	1.020	452	740
890515◇	2	0.277	45	0.367	3 x 10	1.020	50	1.120	718	1062
890516◇	1/0	0.360	55	0.470	3 x 10	1.350	50	1.450	1084	1638
890517◇	2/0	0.404	55	0.514	3 x 10	1.470	50	1.570	1342	1955
890518	3/0	0.454	55	0.564	3 x 8	1.540	60	1.660	1724	2424
890519◇	4/0	0.510	55	0.620	3 x 8	1.670	60	1.790	2134	2910
890520◇	250	0.558	65	0.688	3 x 8	1.845	60	1.965	2493	3390
890521◇	350	0.661	65	0.791	3 x 6	2.200	60	2.320	3521	4600
641426	500	0.789	65	0.919	1 x 4/0	2.430	75	2.580	5337	6398
890522◇	500	0.789	65	0.919	3 x 6	2.430	75	2.580	4924	6259
646751	600	0.866	80	1.026	3 x 6	2.670	75	2.820	5860	7423
890523◇	750	0.968	80	1.128	3 x 4	2.880	75	3.030	7408	9145
TBA	1000	1.117	80	1.277	3 x 4	3.22	85	3.390	9746	11684

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
550593◇	8	5.6	396	0.652	0.815	0.033	40	50	55
890513◇	6	6.2	630	0.411	0.514	0.031	55	65	75
890514◇	4	7.1	1002	0.258	0.323	0.030	70	85	95
890515◇	2	7.8	1593	0.162	0.203	0.028	95	115	130
890516◇	1/0	10.2	2534	0.102	0.128	0.028	125	150	170
890517◇	2/0	11.0	3194	0.081	0.102	0.027	145	175	195
890518	3/0	11.6	4027	0.064	0.081	0.027	165	200	225
890519◇	4/0	12.5	5078	0.051	0.064	0.026	195	230	260
890520◇	250	13.8	6000	0.043	0.055	0.027	215	255	290
890521◇	350	16.2	8400	0.031	0.040	0.026	260	310	350
641426	500	18.1	12000	0.022	0.029	0.025	320	380	430
890522◇	500	18.1	12000	0.022	0.029	0.025	320	380	430
646751	600	19.7	14400	0.018	0.024	0.026	350	420	475
890523◇	750	21.2	18000	0.014	0.020	0.025	400	475	535
TBA	1000	24	24000	0.011	0.017	0.025	455	545	615

† 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.

