

CU 600/1000V XLPE Insulation ARMOR-X[®] PVC Jacket. XHHW-2 VFD Cable

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

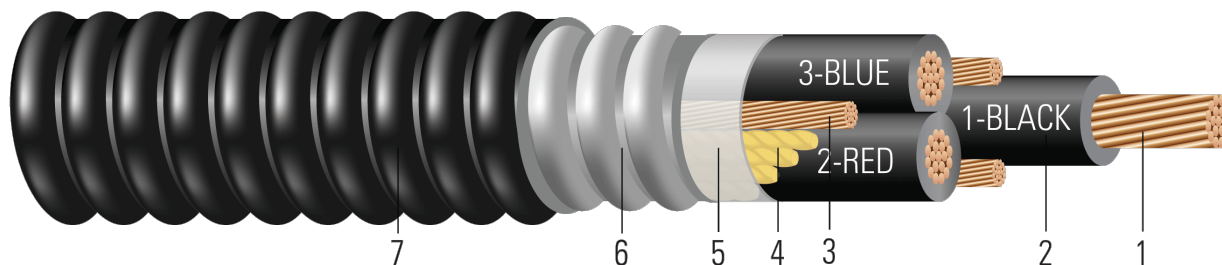


Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

- Conductor:** Class B compressed stranded bare copper per ASTM B3 and B8
- Insulation:** Cross Linked Polyethylene (XLPE) Type XHHW-2
- Grounding Conductor:** Class B compressed stranded bare copper per ASTM B3 and B8
- Filler:** Paper filler (cable size 8 & 6 uses Polypropylene filler)
- Binder:** Polypropylene tape
- Aarmor:** ARMOR-X[®] Continuous Corrugated Welded Armor
- 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 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	Cond. Number	Strand Count	Diameter Over Conductor	Insul. Thickness	Dia. Over Insulation	Ground	Dia. Over Armor	Jacket Thickness	Approx. OD	Copper Weight	Approx. Weight
	AWG/ Kcmil		No. of Strands	inch	mil	inch	No. x AWG	inch	mil	inch	lb/1000ft	lb/1000ft
550593◇	8	3	7	0.141	45	0.233	3 x 14	0.750	60	0.870	192	422
890513◇	6	3	7	0.177	45	0.268	3 x 12	0.840	60	0.960	306	564
890514◇	4	3	7	0.225	45	0.315	3 x 12	0.920	60	1.040	449	733
890515◇	2	3	7	0.282	45	0.371	3 x 10	1.020	60	1.140	717	1081
890516◇	1/0	3	19	0.361	55	0.476	3 x 10	1.350	60	1.470	1085	1765
890517◇	2/0	3	19	0.405	55	0.522	3 x 10	1.470	60	1.596	1342	1967
890518	3/0	3	19	0.456	55	0.570	3 x 8	1.540	60	1.666	1724	2426
890519◇	4/0	3	19	0.512	55	0.608	3 x 8	1.590	60	1.710	2134	2832
890520◇	250	3	37	0.558	65	0.672	3 x 8	1.845	60	1.965	2493	3346
890521◇	350	3	37	0.661	65	0.771	3 x 6	2.040	60	2.160	3520	4529
890522◇	500	3	37	0.789	65	0.902	3 x 6	2.290	75	2.448	4923	6002
641426	500	3	37	0.789	65	0.896	1 x 4/0	2.430	75	2.588	5337	6461
646751	600	3	61	0.865	80	1.026	3 x 6	2.670	75	2.820	5858	7215
890523◇	750	3	61	0.968	80	1.128	3 x 4	3.000	75	3.150	7406	9633
TBA	1000	3	61	1.117	80	1.277	3 x 4	3.220	85	3.390	9737	12086

All dimensions are nominal and subject to normal manufacturing tolerances

◇ Cable marked with this symbol is a standard stock item



Table 2 – Electrical and Engineering Data

Stock Number	Cond. Size	Cond. Number	Min Bending Radius	Max Pull Tension	DC Resistance @ 25°C	AC Resistance @ 75°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	3	6.0	396	0.653	0.786	0.052	40	50	55
890513◇	6	3	6.7	629	0.411	0.495	0.051	55	65	75
890514◇	4	3	7.2	1001	0.258	0.310	0.048	70	85	95
890515◇	2	3	7.9	1592	0.162	0.195	0.045	95	115	130
890516◇	1/0	3	10.2	2534	0.102	0.122	0.044	125	150	170
890517◇	2/0	3	11.1	3194	0.081	0.097	0.043	145	175	195
890518	3/0	3	11.6	4027	0.064	0.078	0.042	165	200	225
890519◇	4/0	3	11.9	5078	0.051	0.062	0.041	195	230	260
890520◇	250	3	13.7	6000	0.043	0.053	0.041	215	255	290
890521◇	350	3	15.1	8400	0.031	0.039	0.040	260	310	350
890522◇	500	3	17.1	10000	0.022	0.029	0.039	320	380	430
641426	500	3	18.1	10000	0.022	0.029	0.039	320	380	430
646751	600	3	19.7	10000	0.018	0.025	0.039	350	420	475
890523◇	750	3	22.0	10000	0.014	0.022	0.038	400	475	535
TBA	1000	3	23.7	10000	0.011	0.018	0.037	455	545	615

* Ampacities based upon 2023 NEC Table 310.16. See NEC sections 310.15 and 110.14(C) for additional requirements.

