



CU 600/1000V XLPE Insulation ARMOR-X[®] PVC Jacket XHHW-2. VFD Cable - CT Rated -Sunlight Resistant - For Direct Burial - Silicone Free

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

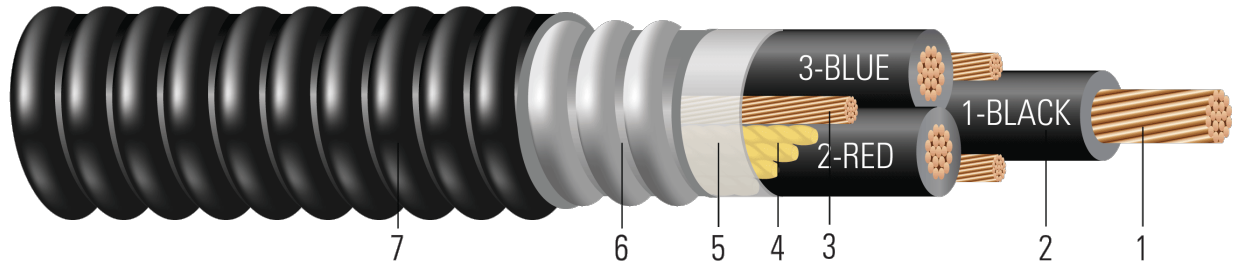


Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** Class B compressed stranded bare copper per ASTM B3 and B8
2. **Insulation:** Cross Linked Polyethylene (XLPE) Type XHHW-2
3. **Grounding Conductor:** Class B compressed stranded bare copper per ASTM B3 and B8
4. **Filler:** Polypropylene filler
5. **Binder:** Polypropylene tape
6. **Armor:** ARMOR-X[®] Continuous Corrugated Welded Armor
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 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
- UL 2225 Cables and Cable-Fittings For Use In Hazardous (Classified) Locations
- CSA C22.2 No. 123 Metal sheathed cables RA90-HL
- ICEA S-58-679 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
- ICEA S-138-738 Power Cables Rated 2000 Volts or Less for use Between Variable Frequency Drives and Motors
- IEEE 1202 FT4 Vertical Tray Flame Test (70,000 Btu/hr) and ICEA T-29-520 - (210,000 Btu/hr)

SAMPLE PRINT LEGEND:

{SQFTG_DUAL} SOUTHWIRE ARMOR-X[®] {UL} TYPE MC-HL 3/C XXX KCMIL (XXX{mm²}) CU XHHW-2 GW 3 X X AWG 90°C JACKET -40°C SUN. RES. DIR. BUR. FOR CT USE 600V IEEE1202/FT4 -- {CSA} RA90-HL AG14 XLPE -40°C 600V FT4 SR 90°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	Ground	Dia. Over Armor	Jacket Thickness	Approx. OD	Copper Weight	Approx. Weight	Jacket Color
	AWG/ Kcmil		No. of Strands	inch	mil	No. x AWG	inch	mil	inch	lb/1000ft	lb/1000ft	
550593◇	8	3	7	0.141	45	3 x 14	0.750	50	0.856	192	407	Black
890513◇	6	3	7	0.177	45	3 x 12	0.840	50	0.946	306	547	Black
890514◇	4	3	7	0.225	45	3 x 12	0.920	50	1.026	449	714	Black
890515◇	2	3	7	0.282	45	3 x 10	1.060	50	1.166	717	1070	Black
890516◇	1/0	3	19	0.361	55	3 x 10	1.350	50	1.456	1085	1745	Black
890517◇	2/0	3	19	0.405	55	3 x 10	1.470	50	1.576	1342	1935	Black
890518	3/0	3	19	0.456	55	3 x 8	1.540	60	1.666	1724	2420	Black
890519◇	4/0	3	19	0.512	55	3 x 8	1.590	60	1.716	2134	2837	Black
890520◇	250	3	37	0.558	65	3 x 8	1.845	60	1.971	2493	3351	Black
890521◇	350	3	37	0.661	65	3 x 6	2.040	60	2.166	3520	4535	Black
890522◇	500	3	37	0.789	65	3 x 6	2.290	75	2.448	4923	5990	Black
646751	600	3	61	0.865	80	3 x 6	2.670	75	2.828	5858	7243	Black
890523◇	750	3	61	0.968	80	3 x 4	3.000	75	3.158	7406	9645	Black
TBA	1000	3	61	1.117	80	3 x 4	3.220	85	3.390	9673	11993	Black

All dimensions are nominal and subject to normal manufacturing tolerances

◇ Cable marked with this symbol is a standard stock item

TBA stock codes are estimations only and actual product may vary. Please wait until a stock code is assigned to purchase connectors and/or fittings.





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	Capacitive Reactance @ 60Hz	Inductive Reactance @ 60Hz	Allowable Ampacity At 75°C	Allowable Ampacity At 90°C
	AWG/Kcmil		inch	lb	Ω/1000ft	Ω/1000ft	MΩ*1000ft	Ω/1000ft	Amp	Amp
550593◇	8	3	6.0	396	0.653	0.786	0.033	0.052	50	55
890513◇	6	3	6.6	629	0.411	0.495	0.027	0.051	65	75
890514◇	4	3	7.2	1001	0.258	0.310	0.022	0.048	85	95
890515◇	2	3	8.2	1592	0.162	0.195	0.018	0.045	115	130
890516◇	1/0	3	10.2	2534	0.102	0.122	0.017	0.044	150	170
890517◇	2/0	3	11.0	3194	0.081	0.097	0.016	0.043	175	195
890518	3/0	3	11.7	4027	0.064	0.078	0.014	0.042	200	225
890519◇	4/0	3	12.0	5078	0.051	0.062	0.013	0.041	230	260
890520◇	250	3	13.8	6000	0.043	0.053	0.014	0.041	255	290
890521◇	350	3	15.2	8400	0.031	0.039	0.012	0.040	310	350
890522◇	500	3	17.1	12000	0.022	0.029	0.010	0.039	380	430
646751	600	3	19.8	14400	0.018	0.025	0.011	0.039	420	475
890523◇	750	3	22.1	18000	0.014	0.022	0.010	0.038	475	535
TBA	1000	3	23.7	24000	0.011	0.018	0.009	0.037	545	615

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

VFD Sizing Calculator

