



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

Type MC-HL Power Cable 600 or 1000 Volt Three Conductor Copper, Cross Linked Polyethylene (XLPE) insulation XHHW-2 Continuous Corrugated Welded Armor - ARMOR-X®, Thermoplastic Solonon® Low Smoke Zero Halogen (LSZH-TP) Jacket with Bare Copper Grounds



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 Conductors:** Class B compressed stranded bare copper per ASTM B3 and B8
4. **Filler:** Paper filler (cable size 8 & 6 uses Polypropylene filler)
5. **Binder:** Polypropylene tape
6. **Armor:** ARMOR-X® Continuous Corrugated Welded armor
7. **Overall Jacket:** Thermoplastic Solonon® Low Smoke Zero Halogen (LSZH-TP)

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. Cables with 3 ground wires 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 Vertical-Tray Fire Propagation and Smoke Release Test (1/0 and Larger)
- UL 2225 Cables and Cable-Fittings For Use In Hazardous (Classified) Locations
- ICEA S-58-679 Cable Conductor Identification Method 3 (1-BLACK, 2-RED, 3-BLUE)
- 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 Flame Test (70,000) BTU/hr Vertical Tray Test

SAMPLE PRINT LEGEND:

{SQFTG_DUAL} SOUTHWIRE® {UL} ARMOR-X® TYPE MC-HL 3/C XX AWG or KCMIL (XX.X{MM2}) CU XHHW-2 GW 3 X XX AWG 90°C SOLONON® JACKET -40°C ST1 SUN.RES. DIR. BUR. FOR CT USE 600V/1kV IEEE1202/FT4 -- {NOM}-ANCE Tipo MC XHHW-2 CT FT4

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	
TBA	8	3	7	0.141	45	3 x 14	0.750	50	0.850	186	444	Black
TBA	6	3	7	0.177	45	3 x 12	0.840	50	0.940	296	589	Black
647699	4	3	7	0.225	45	1 x 8	0.920	50	1.020	439	718	Black
TBA	2	3	7	0.282	45	1 x 6	1.020	50	1.120	699	1045	Black
TBA	1/0	3	19	0.361	55	3 x 10	1.350	50	1.450	1067	1679	Black
672673	2/0	3	19	0.405	55	3 x 10	1.470	50	1.576	1342	1992	Black
586674	3/0	3	19	0.456	55	3 x 8	1.540	60	1.660	1724	2427	Black
TBA	4/0	3	19	0.512	55	3 x 8	1.670	60	1.790	2105	2963	Black
TBA	250	3	37	0.558	65	3 x 8	1.845	60	1.965	2465	3458	Black
TBA	350	3	37	0.661	65	3 x 6	2.200	60	2.320	3435	4623	Black
TBA	500	3	37	0.789	65	3 x 6	2.430	75	2.580	4878	6371	Black
TBA	750	3	61	0.968	80	3 x 4	2.880	75	3.030	7268	9190	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
TBA	8	3	6.0	396	0.653	0.786	0.033	0.052	50	55
TBA	6	3	6.6	629	0.411	0.495	0.027	0.051	65	75
647699	4	3	7.1	1001	0.258	0.310	0.022	0.048	85	95
TBA	2	3	7.8	1592	0.162	0.195	0.018	0.045	115	130
TBA	1/0	3	10.2	2534	0.102	0.122	0.017	0.044	150	170
672673	2/0	3	11.0	3194	0.081	0.097	0.016	0.043	175	195
586674	3/0	3	11.6	4027	0.064	0.078	0.014	0.042	200	225
TBA	4/0	3	12.5	5078	0.051	0.062	0.013	0.041	230	260
TBA	250	3	13.8	6000	0.043	0.053	0.014	0.041	255	290
TBA	350	3	16.2	8400	0.031	0.039	0.012	0.040	310	350
TBA	500	3	18.1	12000	0.022	0.029	0.010	0.039	380	430
TBA	750	3	21.2	18000	0.014	0.022	0.010	0.038	475	535





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



VFD Sizing Calculator

