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 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 CU Ground

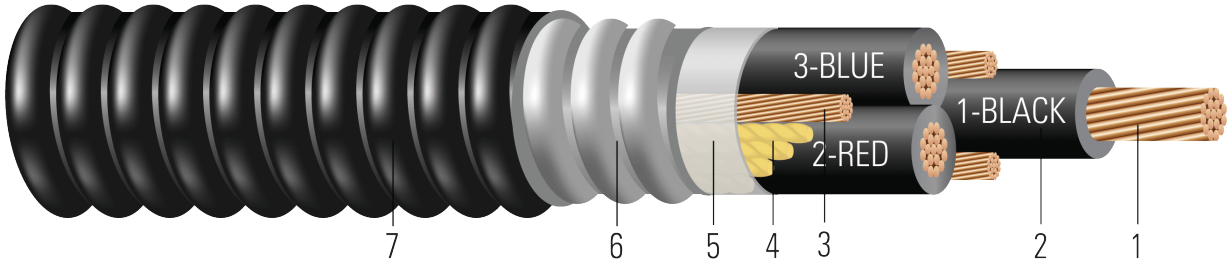

Image not to scale. See Table 1 for dimensions.

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:** 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) 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. 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)
- ICEA S-58-679 Control 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
- 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 XXX AWG (XX{mm2}) CU XHHW-2 GW 3 X X AWG 90°C SOLONON® JACKET -40°C ST1 SUN.RES. DIR. BUR. FOR CT USE 600V IEEE1202/FT4 -- VFD -- {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
	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
TBA	6	3	7	0.177	45	3 x 12	0.840	50	0.940	296	589
647699	4	3	7	0.225	45	1 x 8	0.920	50	1.020	439	718
677933	2	3	7	0.282	45	1 x 6	1.020	50	1.120	699	1045
TBA	1/0	3	19	0.361	55	3 x 10	1.350	50	1.450	1067	1679
672673	2/0	3	19	0.405	55	3 x 10	1.470	50	1.576	1342	1992
TBA	2/0	3	19	0.405	55	3 x 10	1.480	50	1.580	1324	2001
586674	3/0	3	19	0.456	55	3 x 8	1.540	60	1.660	1724	2427
TBA	4/0	3	19	0.512	55	3 x 8	1.670	60	1.790	2105	2963
TBA	250	3	37	0.558	65	3 x 8	1.845	60	1.965	2465	3458
TBA	350	3	37	0.661	65	3 x 6	2.200	60	2.320	3435	4623
TBA	500	3	37	0.789	65	3 x 6	2.430	75	2.580	4878	6371
TBA	750	3	61	0.968	80	3 x 4	2.880	75	3.030	7268	9190

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	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
677933	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
TBA	2/0	3	11.1	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.