

## INTERLOCKED ARMOR CONTROL, TYPE MC (14AWG)

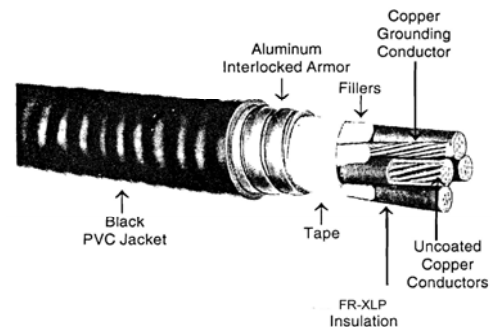
### FR-XLP VW-1 XHHW-2 Conductors, Aluminum Armor

**APPLICATION:** As a multi-conductor Type MC cable, 90°C in wet or dry locations; for installation indoors or outdoors, aerially or in metal rack, trough, cable trays, or direct buries; for control, lighting, power and signal circuits not exceeding 600 volts in manufacturing and processing plants and substations. May be used in NEC Class I and II, Division 2 and Class III, Division 1 and 2 hazardous locations.

**STANDARDS:**

1. Listed by UL as Type MC cable per Standard 1569 for Metal Clad Cables
2. Individual conductors UL listed as Type XHHW-2, VW-1.
3. Overall jacket UL listed as Sunlight Resistant.
4. Cables pass UL and IEE-383 ribbon burner flame tests and are UL listed for CT Use.
5. Cables pass ICEA 210,000 BTU/hr. ribbon burner flame test.
6. Cables UL listed for Direct Burial.
7. Cables conform to ICEA S-73-532, NEMA WC57, Control Cables.

**CONSTRUCTION:** Stranded uncoated copper conductors, 30 mils FR-XLP flame-retardant crosslinked polyethylene insulation, color coded, twisted with an 7-strand uncoated copper uninsulated grounding conductor of same size as circuit conductors, cable tape, aluminum interlocked armor, black PVC jacket overall.



#### #14 AWG - 7 Strand

USAWC Part #	No of Condrs.	Nom. Diam Over Armor Inches	Overall PVC Jacket Mils	Nom. Diam. Inches	Weight lbs/ 1000 ft	
					Net	Copper
14-02AIAWGPVC	2	.46	50	.56	160	39
14-03AIAWGPVC	3	.48	50	.58	185	52
14-04AIAWGPVC	4	.53	50	.64	220	65
14-05AIAWGPVC	5	.55	50	.66	245	79
14-06AIAWGPVC	6	.59	50	.70	280	91
14-07AIAWGPVC	7	.59	50	.70	295	104
14-08AIAWGPVC	8	.66	50	.76	330	117
14-09AIAWGPVC	9	.68	50	.78	360	130
14-10AIAWGPVC	10	.75	50	.85	395	143
14-11AIAWGPVC	11	.75	50	.85	415	156
14-12AIAWGPVC	12	.76	50	.87	430	168
14-13AIAWGPVC	13	.78	50	.89	465	182
14-14AIAWGPVC	14	.81	50	.91	490	195
14-15AIAWGPVC	15	.84	50	.95	515	208
14-16AIAWGPVC	16	.84	50	.95	530	221
14-17AIAWGPVC	17	.90	50	1.00	550	378
14-18AIAWGPVC	18	.90	50	1.00	570	399
14-19AIAWGPVC	19	.90	50	1.00	590	259
14-20AIAWGPVC	20	.94	50	1.04	615	273
14-23AIAWGPVC	23	.98	50	1.08	690	312
14-25AIAWGPVC	25	1.03	50	1.14	750	337
14-27AIAWGPVC	27	1.05	50	1.16	810	364
14-29AIAWGPVC	29	1.06	50	1.17	860	390
14-31AIAWGPVC	31	1.11	50	1.21	920	416
14-32AIAWGPVC	32	1.13	50	1.23	940	429
14-37AIAWGPVC	37	1.17	50	1.27	1110	492

NOTES: 1. Standard color is Method 1 for NEC applications per Appendix E, Table E-2 of ICEA S-73-532  
 2. Cables may be supplied with galvanized steel interlocked armor on request.

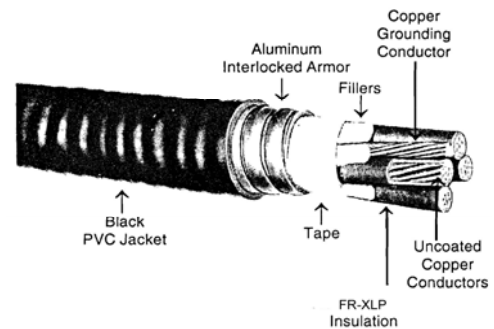
## INTERLOCKED ARMOR CONTROL, TYPE MC (12AWG) FR-XLP VW-1 XHHW-2 Conductors, Aluminum Armor

**APPLICATION:** As a multi-conductor Type MC cable, 90°C in wet or dry locations; for installation indoors or outdoors, aerially or in metal rack, trough, cable trays, or direct buries; for control, lighting, power and signal circuits not exceeding 600 volts in manufacturing and processing plants and substations. May be used in NEC Class I and II, Division 2 and Class III, Division 1 and 2 hazardous locations.

**STANDARDS:**

1. Listed by UL as Type MC cable per Standard 1569 for Metal Clad Cables
2. Individual conductors UL listed as Type XHHW-2, VW-1.
3. Overall jacket UL listed as Sunlight Resistant.
4. Cables pass UL and IEE-383 ribbon burner flame tests and are UL listed for CT Use.
5. Cables pass ICEA 210,000 BTU/hr. ribbon burner flame test.
6. Cables UL listed for Direct Burial.
7. Cables conform to ICEA S-73-532, NEMA WC57, Control Cables.

**CONSTRUCTION:** Stranded uncoated copper conductors, 30 mils FR-XLP flame-retardant crosslinked polyethylene insulation, color coded, twisted with an 7-strand uncoated copper uninsulated grounding conductor of same size as circuit conductors, cable tape, aluminum interlocked armor, black PVC jacket overall.



### #12 AWG - 7 Strand

USAWC Part #	NoI of Condrs.	Nom. Diam Over Armor Inches	Overall PVC Jacket Mils	Nom. Diam. Inches	Weight lbs/ 1000 ft	
					Net	Copper
12-02AIAWGPVC	2	.52	50	.61	205	64
12-03AIAWGPVC	3	.53	50	.63	230	83
12-04AIAWGPVC	4	.56	50	.67	275	103
12-05AIAWGPVC	5	.63	50	.73	315	129
12-06AIAWGPVC	6	.67	50	.78	350	140
12-07AIAWGPVC	7	.67	50	.78	375	165
12-08AIAWGPVC	8	.72	50	.83	420	180
12-09AIAWGPVC	9	.77	50	.87	460	214
12-10AIAWGPVC	10	.83	50	.93	505	231
12-11AIAWGPVC	11	.83	50	.93	530	252
12-12AIAWGPVC	12	.85	50	.96	570	279
12-13AIAWGPVC	13	.88	50	.98	600	294
12-14AIAWGPVC	14	.91	50	1.01	630	315
12-15AIAWGPVC	15	.95	50	1.05	670	336
12-16AIAWGPVC	16	.95	50	1.05	705	357
12-17AIAWGPVC	17	1.00	50	1.10	740	378
12-18AIAWGPVC	18	1.00	50	1.10	765	399
12-19AIAWGPVC	19	1.00	50	1.10	790	428
12-20AIAWGPVC	20	1.04	50	1.15	860	441
12-23AIAWGPVC	23	1.09	50	1.20	960	504
12-25AIAWGPVC	25	1.15	50	1.26	1035	557
12-27AIAWGPVC	27	1.18	50	1.28	1095	588
12-29AIAWGPVC	29	1.19	50	1.29	1155	630
12-31AIAWGPVC	31	1.24	50	1.34	1205	672
12-32AIAWGPVC	32	1.26	50	1.37	1255	693
12-37AIAWGPVC	37	1.31	50	1.41	1395	793

NOTES: 1. Standard color is Method 1 for NEC applications per Appendix E, Table E-2 of ICEA S-73-532  
2. Cables may be supplied with galvanized steel interlocked armor on request.

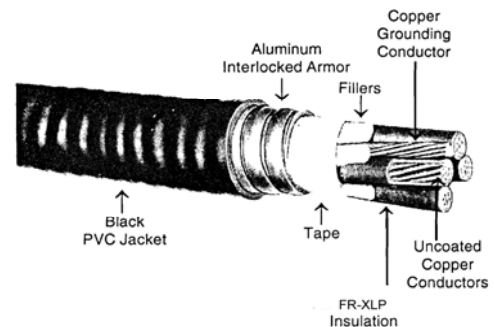
## INTERLOCKED ARMOR CONTROL, TYPE MC (10AWG) FR-XLP VW-1 XHHW-2 Conductors, Aluminum Armor

**APPLICATION:** As a multi-conductor Type MC cable, 90°C in wet or dry locations; for installation indoors or outdoors, aerially or in metal rack, trough, cable trays, or direct buries; for control, lighting, power and signal circuits not exceeding 600 volts in manufacturing and processing plants and substations. May be used in NEC Class I and II, Division 2 and Class III, Division 1 and 2 hazardous locations.

**STANDARDS:**

1. Listed by UL as Type MC cable per Standard 1569 for Metal Clad Cables
2. Individual conductors UL listed as Type XHHW-2, VW-1.
3. Overall jacket UL listed as Sunlight Resistant.
4. Cables pass UL and IEE-383 ribbon burner flame tests and are UL listed for CT Use.
5. Cables pass ICEA 210,000 BTU/hr. ribbon burner flame test.
6. Cables UL listed for Direct Burial.
7. Cables conform to ICEA S-73-532, NEMA WC57, Control Cables.

**CONSTRUCTION:** Stranded uncoated copper conductors, 30 mils FR-XLP flame-retardant crosslinked polyethylene insulation, color coded, twisted with an 7-strand uncoated copper uninsulated grounding conductor of same size as circuit conductors, cable tape, aluminum interlocked armor, black PVC jacket overall.



### #10 AWG - 7 Strand

USAWC Part #	NoI of Condrs.	Nom. Diam Over Armor Inches	Overall PVC Jacket Mils	Nom. Diam. Inches	Weight lbs/ 1000 ft	
					Net	Copper
10-02AIAWGPVC	2	.57	50	.67	260	96
10-03AIAWGPVC	3	.58	50	.68	300	131
10-04AIAWGPVC	4	.64	50	.75	355	164
10-05AIAWGPVC	5	.69	50	.80	410	192
10-06AIAWGPVC	6	.75	50	.85	465	224
10-07AIAWGPVC	7	.75	50	.85	500	256
10-08AIAWGPVC	8	.80	50	.91	560	288
10-09AIAWGPVC	9	.86	50	.96	620	320
10-10AIAWGPVC	10	.94	50	1.04	680	352
10-11AIAWGPVC	11	.94	50	1.04	720	384
10-12AIAWGPVC	12	.96	50	1.07	770	416
10-13AIAWGPVC	13	.98	50	1.08	815	448
10-14AIAWGPVC	14	1.01	50	1.12	865	480
10-15AIAWGPVC	15	1.06	50	1.17	920	512
10-16AIAWGPVC	16	1.06	50	1.17	960	544
10-17AIAWGPVC	17	1.12	50	1.22	1015	576
10-18AIAWGPVC	18	1.12	50	1.22	1055	608
10-19AIAWGPVC	19	1.12	50	1.22	1095	640
10-20AIAWGPVC	20	1.17	50	1.28	1155	672
10-23AIAWGPVC	23	1.22	50	1.33	1290	768
10-25AIAWGPVC	25	1.30	50	1.40	1390	832
10-27AIAWGPVC	27	1.32	50	1.43	1480	896
10-29AIAWGPVC	29	1.34	50	1.44	1570	960
10-31AIAWGPVC	31	1.39	50	1.50	1660	1024
10-32AIAWGPVC	32	1.42	50	1.53	1715	1056
10-37AIAWGPVC	37	1.48	50	1.58	1935	1216

NOTES: 1. Standard color is Method 1 for NEC applications per Appendix E, Table E-2 of ICEA S-73-532  
2. Cables may be supplied with galvanized steel interlocked armor on request.

## Specification

### INTERLOCKED ARMOR CONTROL CABLE, TYPE MC

### FR-XLP VW-1 XHHW-2 Conductors, Aluminum Armor

#### 1. SCOPE

- 1.1 This specification describes multi-conductor FR-XLP flame-retardant crosslinked polyethylene insulated, aluminum interlocked armor Type MC control cable for use in circuits not exceeding 600 volts at conductor temperatures of 90°C in wet or dry locations. Cables are intended for general purpose applications in aerial, direct burial, metal rack, trough, or cable tray installations.

#### 2. APPLICABLE STANDARDS

- 2.1 The following standards shall form a part of this specification to the extent specified herein:
- 2.1.1 UL Standard 1569 for Type MC cable.
  - 2.1.2 UL Standard 44 for Type XHHW-2, VW-1 conductors.
  - 2.1.3 ICEA Pub. No. 8-73-532, NEMA Pub. No. WC57 for Control Cables.

#### 3. CONDUCTORS

- 3.1 Conductors shall be Class B stranded uncoated soft copper per Part 2 of ICEA. Conductor sizes shall be 14 AWG through 10 AWG.

#### 4. SEPARATOR

- 4.1 A suitable separator over the conductor may be used at the option of the manufacturer.

#### 5. INSULATION

- 5.1 Compound: Each conductor shall be insulated with FR-XLP flame-retardant chemically crosslinked polyethylene, meeting the requirements of ICEA 8-73-532, Table 3-2 (Type I-XLPE), and Type XHHW-2, VW-1 requirements of Underwriters Laboratories.
- 5.2 Thickness: The average thickness of insulation shall be 30 mils. The minimum thickness at any point shall be not less than 90% of the specified thickness.

#### 6. CIRCUIT IDENTIFICATION

- 6.1 Circuit identification shall consist of Method 1 color coding for National Electrical Code applications in accordance with ICEA Pub. No. 8-73-532, Appendix E, Table E-2

#### 7. ASSEMBLY

- 7.1 The insulated color coded conductors shall be cabled together with nonhygroscopic fillers, when necessary to make round. One 7-strand uncoated copper uninsulated grounding conductor of the same size as the circuit conductors, shall be included in the assembly.

#### 8. CABLE TAPE

- 8.1 A suitable cable tape shall be applied over the assembly to hold the core together and provide bedding for the armor.

#### 9. ARMOR

- 9.1 An aluminum interlocked armor shall be applied over the cable core. Armor shall be in accordance with UL Standard 1569 and Part 4 of ICEA.

#### 10. COVERING

- 10.1 An extruded covering of PVC shall be applied over the armor. The average thickness and properties of the PVC covering shall be as specified in Part 4 of ICEA. Minimum thickness at any point shall be not less than 70% of the required average thickness. The covering shall meet the Sunlight Resistant requirements of UL.

#### 11. IDENTIFICATION

- 11.1 An ink print legend shall be applied to the surface of the PVC covering providing cable and manufacturer identification.

#### 12. TESTS

- 12.1 Individual conductors and completed cables shall be tested in accordance with UL requirements for Type MC cables having XHHW-2, VW-1 insulated conductors.
- 12.2 Cables shall be capable of passing the ribbon burner cable tray flame test requirements of UL and shall be UL listed "For CT Use".