

# MC, XHHW-2 Copper

XLPE Insulated, 600 V

**CME**<sup>®</sup>  
wire and cable

A Viakable Company

## Features

- UL listed as MC.
- Cable rated Sunlight Resistance for CT use.
- Jacket is rated Oil Resistance I.
- Singles are rated XHHW-2, and CT Use 1/0 AWG and larger.
- Aluminum armor is rated for Direct Burial, using 6 AWG and larger conductors, with overall jacket.

## Application

- These cables are specifically approved for power, control, lighting and signal circuits, in manufacturing, industrial and commercial installations.
- May be used in wet or dry locations, where exposed or concealed, installed in cable trays, raceways, duct, and open air, aerially or directly buried.
- In hazardous (classified) locations Class I, Division 2, as permitted by NEC.

## Standards

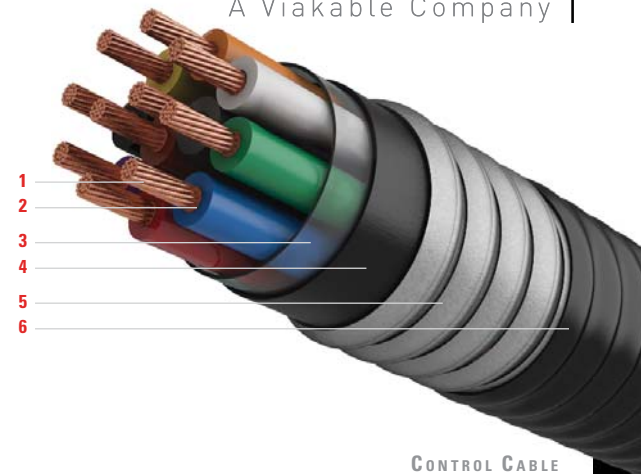
- UL 1569
- Metal Clad Cables.
- UL 1277
- Electrical power and control tray cables with optional Optical-fiber members.
- UL 44
- Rubber-Insulated wires and cables.
- ICEA S-73-532 NEMA WC57
- Standard for Control Cables.
- ICEA S-95-658
- Standard for Nonshielded Power Cables Rated 2000 Volts or Less.

## Specifications

- Maximum operating voltage:
  - 600 volts
- Maximum conductor operation temperature:
  - 90 °C wet and dry

## Engineering Information

- 1. Conductor:** Soft annealed uncoated copper compressed Class B or C stranding or unilay-compressed (19 wires) per ASTM B8, or combination unilay per ASTM B787.
- Sizes:** 14 AWG up to 1000 kcmil.
- 2. Insulation:** Flame retardant thermoset cross-linked polyethylene (XLPE).



CONTROL CABLE

## Conductor Identification ICEA:

**14 AWG – 10 AWG:** Color coded per Method 1 Table E-2, **without White and Green colors.**

*On request, Table E-1, which includes White and Green colors.*

**Sizes 8 AWG – 1000 kcmil:** Black insulation with Printed numbers, 1, 2, 3, or 4.

*On request, Color coded, BL, WH and Red or Green.*

**Grounding:** One bare or one or more insulated conductors.

**3. Assembly:** Phase and grounding conductor(s) cabled with non hygroscopic fillers, as required and binder tape.

**4. Inner Jacket (Optional):** Black sunlight resistant and flame retardant polyvinyl chloride (PVC) compound.

**5. Armor:** Aluminum or galvanized steel interlocked armor, applied over the binder tape or optional inner jacket.

**6. Jacket:** Black sunlight resistant and flame retardant polyvinyl chloride (PVC) compound.



POWER CABLE

Technical Data

### 14 AWG Armored and Sheathed

Number of Conductors	Approximate OD Over Armor		Approximate Outside Diameter	Approximate Net Weight	
	in	mil		Steel Armor	Aluminum Armor
				lb/kft	lb/kft
2	0.46	50	0.57	*	161
3	0.49	50	0.60	*	182
4	0.52	50	0.63	*	211
5	0.56	50	0.67	*	236
6	0.60	50	0.71	408	268
7	0.60	50	0.71	427	287
8	0.68	50	0.79	501	340
9	0.73	50	0.84	547	369
10	0.73	50	0.84	548	370
12	0.75	50	0.86	597	413
14	0.79	50	0.90	663	470
15	0.82	50	0.93	750	565
16	0.82	50	0.93	766	581
19	0.86	50	0.97	834	638
20	0.90	50	1.01	888	684
24	1.00	50	1.11	1034	806
25	1.02	50	1.13	1066	832
27	1.02	50	1.13	1077	843
30	1.05	50	1.16	1154	912
35	1.13	50	1.24	1320	1060
37	1.13	50	1.24	1333	1072
50	1.32	50	1.43	1719	1412

Size AWG	Insulation Thickness	Single Conductor OD
	XLPE / mil	mil
14	30	133

### 14 AWG Jacketed, Armored and Sheathed

Number of Conductors	Approximate OD Over Armor		Approximate Outside Diameter	Approximate Net Weight	
	in	mil		Steel Armor	Aluminum Armor
				lb/kft	lb/kft
2	0.57	50	0.68	350	216
3	0.59	50	0.70	380	241
4	0.62	50	0.73	424	275
5	0.66	50	0.77	463	304
6	0.70	50	0.81	509	340
7	0.70	50	0.81	528	359
8	0.78	50	0.89	610	420
9	0.83	50	0.94	703	514
10	0.83	50	0.94	704	515
12	0.85	50	0.96	756	562
14	0.89	50	1.00	827	625
15	0.93	50	1.04	879	669
16	0.93	50	1.04	896	684
19	0.97	50	1.08	967	745
20	1.01	50	1.12	1026	796
24	1.10	50	1.21	1181	927
25	1.12	50	1.23	1215	955
27	1.12	50	1.23	1226	966
30	1.16	50	1.27	1307	1039
35	1.23	50	1.34	1481	1194
37	1.23	50	1.34	1494	1206
50	1.42	50	1.53	1899	1565

Size AWG	Insulation Thickness	Single Conductor OD
	XLPE / mil	mil
14	30	133

The above data are approximate and subject to normal manufacturing tolerances. Where required, the compatibility with glands, connectors and accessories should be verified using actual dimensions of the product. Other sizes available upon request.

**Ampacities:** Refer to beginning of section.

\* Contact CME for availability.

Technical Data

### 12 AWG Armored and Sheathed

Number of Conductors	Approximate OD Over Armor	Jacket Thickness	Approximate Outside Diameter	Approximate Net Weight	
	in	mil	in	Steel Armor lb/kft	Aluminum Armor lb/kft
2	0.50	50	0.61	*	192
3	0.52	50	0.63	*	221
4	0.56	50	0.67	*	260
5	0.61	50	0.72	438	294
6	0.65	50	0.76	492	337
7	0.65	50	0.76	520	365
8	0.74	50	0.85	612	433
9	0.80	50	0.91	671	473
10	0.80	50	0.91	675	477
12	0.83	50	0.94	785	598
14	0.86	50	0.97	876	679
15	0.91	50	1.02	938	732
16	0.91	50	1.02	962	755
19	0.95	50	1.06	1055	837
20	1.00	50	1.11	1126	898
24	1.10	50	1.21	1319	1063
25	1.13	50	1.24	1361	1100
27	1.13	50	1.24	1382	1120
30	1.17	50	1.28	1489	1218
35	1.25	50	1.36	1713	1421
37	1.25	50	1.36	1736	1443
50	1.52	60	1.65	2214	1913

Size AWG	Insulation Thickness	Single Conductor OD
	XLPE / mil	mil
12	30	151

### 12 AWG Jacketed, Armored and Sheathed

Number of Conductors	Approximate OD Over Armor	Jacket Thickness	Approximate Outside Diameter	Approximate Net Weight	
	in	mil	in	Steel Armor lb/kft	Aluminum Armor lb/kft
2	0.60	50	0.71	393	249
3	0.63	50	0.74	433	283
4	0.67	50	0.78	489	328
5	0.71	50	0.82	540	367
6	0.76	50	0.87	599	415
7	0.76	50	0.87	627	443
8	0.85	50	0.96	770	581
9	0.91	50	1.02	838	631
10	0.91	50	1.02	842	635
12	0.93	50	1.04	914	702
14	0.97	50	1.08	1009	787
15	1.01	50	1.12	1076	844
16	1.01	50	1.12	1100	867
19	1.06	50	1.17	1198	954
20	1.10	50	1.21	1273	1019
24	1.21	50	1.32	1477	1195
25	1.23	50	1.34	1522	1234
27	1.23	50	1.34	1542	1254
30	1.27	50	1.38	1653	1356
35	1.36	50	1.47	1886	1568
37	1.36	50	1.47	1909	1590
50	1.62	60	1.75	2403	2080

Size AWG	Insulation Thickness	Single Conductor OD
	XLPE / mil	mil
12	30	151

The above data are approximate and subject to normal manufacturing tolerances. Where required, the compatibility with glands, connectors and accessories should be verified using actual dimensions of the product. Other sizes available upon request.

**Ampacities:** Refer to beginning of section.

\* Contact CME for availability.

Technical Data

### 10 AWG Armored and Sheathed

Number of Conductors	Approximate OD Over Armor	Jacket Thickness	Approximate Outside Diameter	Approximate Net Weight	
				Steel Armor	Aluminum Armor
	in	mil	in	lb/kft	lb/kft
2	0.55	50	0.66	*	237
3	0.58	50	0.69	416	280
4	0.62	50	0.73	482	334
5	0.67	50	0.78	544	383
6	0.72	50	0.83	618	443
7	0.72	50	0.83	660	485
8	0.83	50	0.94	820	636
9	0.90	50	1.01	900	695
10	0.90	50	1.01	911	706
12	0.93	50	1.04	1011	799
14	0.97	50	1.08	1137	914
15	1.02	50	1.13	1220	986
16	1.02	50	1.13	1257	1022
19	1.07	50	1.18	1391	1142
20	1.13	50	1.24	1485	1226
24	1.25	50	1.36	1750	1458
25	1.28	50	1.39	1809	1510
27	1.28	50	1.39	1845	1546
30	1.32	50	1.43	1998	1687
35	1.42	50	1.53	2311	1977
37	1.42	50	1.53	2351	2015
50	1.72	60	1.85	3031	2687

Size AWG	Insulation Thickness	Single Conductor OD
	XLPE / mil	mil
10	30	175

### 10 AWG Jacketed, Armored and Sheathed

Number of Conductors	Approximate OD Over Armor	Jacket Thickness	Approximate Outside Diameter	Approximate Net Weight	
				Steel Armor	Aluminum Armor
	in	mil	in	lb/kft	lb/kft
2	0.65	50	0.76	454	297
3	0.68	50	0.79	511	346
4	0.73	50	0.84	586	409
5	0.77	50	0.88	653	462
6	0.83	50	0.94	773	587
7	0.83	50	0.94	815	629
8	0.93	50	1.04	950	740
9	1.00	50	1.11	1038	806
10	1.00	50	1.11	1048	817
12	1.03	50	1.14	1150	912
14	1.07	50	1.18	1281	1032
15	1.12	50	1.23	1370	1110
16	1.12	50	1.23	1407	1145
19	1.18	50	1.29	1545	1271
20	1.23	50	1.34	1645	1359
24	1.35	50	1.46	1923	1605
25	1.38	50	1.49	1984	1659
27	1.38	50	1.49	2021	1695
30	1.43	50	1.54	2178	1841
35	1.58	60	1.71	2450	2138
37	1.58	60	1.71	2490	2176
50	1.83	60	1.96	3240	2874

Size AWG	Insulation Thickness	Single Conductor OD
	XLPE / mil	mil
10	30	175

The above data are approximate and subject to normal manufacturing tolerances. Where required, the compatibility with glands, connectors and accessories should be verified using actual dimensions of the product. Other sizes available upon request.

**Ampacities:** Refer to beginning of section.

\* Contact CME for availability.

Technical Data

### Three Conductors 600 V, Armored and Sheathed

AWG or kcmil	Number of Strands	Insulation Thickness	Grounding* Conductor Size	OD Over Armor	Jacket Thickness	Outside Diameter	Steel Armor	Aluminum Armor
		mil	AWG	in	mil	in	lb/kft	lb/kft
8	7	45	10	0.72	50	0.82	NA	432
6	7	45	8	0.80	50	0.91	764	567
4	7	45	8	0.88	50	0.99	1024	822
2	7	45	6	1.01	50	1.12	1355	1121
1	19	55	6	1.14	50	1.25	1631	1365
1/0	19	55	6	1.22	50	1.33	1911	1624
2/0	19	55	6	1.32	50	1.43	2305	1993
3/0	19	55	4	1.43	50	1.54	2711	2372
4/0	19	55	4	1.63	60	1.76	3213	2961
250	37	65	4	1.74	60	1.87	3680	3328
350	37	65	3	1.96	60	2.09	4965	4567
500	37	65	2	2.24	60	2.37	6714	6254
750	61	80	1	2.70	75	2.86	9537	8981
1000	61	80	1/0	3.02	85	3.20	12360	11735

### Four Conductors 600 V, Armored and Sheathed

Size AWG or kcmil	Number of Strands	Insulation Thickness	Minimum Grounding* Conductor Size	Approximate OD Over Armor	Outer Jacket Thickness	Approximate Outside Diameter	Approximate Net Weight	
		mil	AWG	in	mil	in	Steel Armor lb/kft	Aluminum Armor lb/kft
6	7	45	8	0.85	50	0.96	945	751
4	7	45	8	0.97	50	1.08	1233	1011
2	7	45	6	1.11	50	1.22	1695	1438
1	19	55	6	1.25	50	1.36	2047	1755
1/0	19	55	6	1.35	50	1.46	2414	2098
2/0	19	55	6	1.50	60	1.63	2819	2520
3/0	19	55	4	1.62	60	1.75	3410	3086
4/0	19	55	4	1.80	60	1.93	4131	3770
250	37	65	4	1.92	60	2.05	4747	4361
350	37	65	3	2.17	60	2.30	6293	5855
500	37	65	2	2.48	75	2.64	8654	8150
750	61	80	1	2.99	75	3.15	12501	11892
1000	61	80	1/0	3.35	85	3.53	16244	15561

The above data are approximate and subject to normal manufacturing tolerances. Where required, the compatibility with glands, connectors and accessories should be verified using actual dimensions of the product. Other sizes available upon request.

**Ampacities:** Refer to beginning of section.

\* At the option of manufacturer, Ground Conductor can be divided in three, one in each interstice.

Technical Data

### Three Conductors 600 V, Jacketed, Armored and Sheathed

Size AWG or kcmil	Number of Strands	Insulation Thickness mil	Minimum Grounding* Conductor Size AWG	Approximate OD Over Armor in	Outer Jacket Thickness mil	Approximate Outside Diameter in	Approximate Net Weight	
							Steel Armor lb/kft	Aluminum Armor lb/kft
8	7	45	10	0.83	50	0.93	NA	518
6	7	45	8	0.90	50	1.01	930	724
4	7	45	8	0.99	50	1.10	1159	931
2	7	45	6	1.11	50	1.22	1504	1244
1	19	55	6	1.24	50	1.35	1798	1500
1/0	19	55	6	1.33	50	1.44	2092	1768
2/0	19	55	6	1.42	50	1.53	2451	2098
3/0	19	55	4	1.58	60	1.71	2863	2533
4/0	19	55	4	1.74	60	1.87	3437	3063
250	37	65	4	1.84	60	1.97	3923	3518
350	37	65	3	2.09	60	2.22	5182	4713
500	37	65	2	2.37	75	2.53	7107	6621
750	61	80	1	2.85	75	3.01	10109	9420
1000	61	80	1/0	3.17	85	3.35	13013	12226

### Four Conductors 600 V, Jacketed, Armored and Sheathed

Size AWG or kcmil	Number of Strands	Insulation Thickness mil	Minimum Grounding* Conductor Size AWG	Approximate OD Over Armor in	Outer Jacket Thickness mil	Approximate Outside Diameter in	Approximate Net Weight	
							Steel Armor lb/kft	Aluminum Armor lb/kft
6	7	45	8	0.96	50	1.07	1078	858
4	7	45	8	1.07	50	1.18	1377	1129
2	7	45	6	1.21	50	1.32	1853	1570
1	19	55	6	1.35	50	1.46	2220	1901
1/0	19	55	6	1.50	50	1.61	2517	2219
2/0	19	55	6	1.61	60	1.74	3006	2686
3/0	19	55	4	1.73	60	1.86	3610	3264
4/0	19	55	4	1.92	60	2.05	4394	4006
250	37	65	4	2.04	60	2.17	5024	4611
350	37	65	3	2.30	75	2.46	6688	6222
500	37	65	2	2.61	75	2.77	9004	8473
750	61	80	1	3.15	85	3.33	13084	12442
1000	61	80	1/0	3.53	85	3.71	16897	16176

The above data are approximate and subject to normal manufacturing tolerances. Where required, the compatibility with glands, connectors and accessories should be verified using actual dimensions of the product. Other sizes available upon request.

**Ampacities:** Refer to beginning of section.

\* At the option of manufacturer, Ground Conductor can be divided in three, one in each interstice.