CCW® Armored Control With Grounding Conductor

UL Type MC-HL, XLPE, 600 V, 90°C, Cable Tray Use, Sunlight-Resistant, Direct Burial UL Marine Shipboard Cable, ABS CWCMC



Product Construction:

Conductor:

- Bare annealed copper per ASTM B3
- Compressed Class B stranding per ASTM B8

Insulation:

- Cross-Linked Polyethylene (XLPE) insulation per ICEA S-73-532 and UL 44, Listed XHHW-2
- Color-coded per ICEA Method 1, Table E2, full-colored insulation with stripes
- Color-coded per CSA C22.2 No. 123 where applicable

Grounding Conductor:

- Class B stranded bare annealed copper per ASTM B3 and B8
- Cross-Linked Polyethylene (XLPE) insulation, green
- Sized in accordance with NEC Table 250.122

Cable Assembly:

- Insulated conductors and grounding wire are cabled together with nonhygroscopic fillers when required
- A binder tape, when required, is applied over the cabled core

CCW Armor:

- Impervious, continuously welded and corrugated aluminum alloy sheath per UL 1569 and UL 2225
- CCW armor conductivity meets the grounding requirements of NEC Article 250

Jacket:

- Flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), black
- Low temperature performance meets ASTM D746 brittleness temperature at or below -40°C
- Meets CSA Low Acid Gas requirements

Applications:

- CCW armored Control cables offer an economical, rugged and reliable alternative to labor-intensive cable in conduit wiring methods
- For use in Class I, II and III, Divisions 1 and 2; and Class I, Zones 1 and 2 hazardous locations per NEC Articles 501, 502, 503 and 505
- For use as services, feeders and branch circuits for power, lighting, control, and signal circuits in accordance with NEC Articles 330 and 725
- Installed indoors or outdoors, wet or dry locations, directly buried, embedded in concrete, in a raceway, as aerial cable on a messenger, in cable trays, or as exposed runs secured to supports in accordance with NEC Article 330
- Recognized for use on fixed or floating offshore petroleum facilities as recommended by the American Petroleum Institute

Features:

- CCW armor provides an impervious barrier to moisture, gas and liquids
- CCW armor provides EMI shielding performance
- Factory assembled and tested cable for use as an alternative to cable in conduit wiring systems
- Meets cold impact at -40°C
- 90°C continuous operating temperature, wet or dry
- 130°C emergency rating
- 250°C short circuit rating

Specifications:

Design Adherence:

- ICEA S-73-532/WC-57 Standard for Control, Thermocouple Extension and Instrumentation Cables
- UL 44 Rubber Insulated Wires and Cables
- UL 1569 Metal Clad Cables
- UL 2225 Cables and Cable Fittings for Use in Hazardous Locations
- UL 1309 Marine Shipboard Cable
- CSA C22.2 No. 123 Metal Sheathed Cables
- CSA C22.2 No. 174 Cables and Cable Glands for Use in Hazardous Locations

Flame Tests:

- ICEA T-29-520 (210,000 BTU/hr)
- IEEE 383 (70,000 BTU/hr)
- CSA FT4
- IEEE 1202 (70,000 BTU/hr)
- UL 1581 (70,000 BTU/hr)
- IEC 60332-3 Cat. A

Compliances:

- UL Type MC-HL, XHHW-2, SUN RES, CT USE, DIR BUR, -40°C, UL File # E69797
- UL Listed Marine Shipboard, UL File # E85994
- American Bureau of Shipping (ABS) Listed for CWCMC
- CSA certified Type RA90, XLPE, HL, SR, FT4, and -40°C, CSA File # 7319

Standard cables are also marked CSA Type RA90, except four (4) conductor cables which require a different color code, which may be special-ordered.









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	COND.		GREEN INSULATED	INSULATION THICKNESS		NOMINAL CORE O.D.		NOMINAL ARMOR O.D.		JACKET THICKNESS		NOMINAL OVERALL O.D.		CROSS- SECTIONAL AREA1	APPROXIMATE NET WEIGHT		90°C AMPACITY
CATALOG Number	SIZE (AWG)	NO. OF COND.	GROUND (AWG)	mils	mm	INCHES	mm	INCHES	mm	mils	mm	INCHES	mm	(SQ. IN.)	LBS/1000 FT	1	AMBIENT ²
14 AWG 7W (2.08 mm²) MULTI-CONDUCTOR CONTROL CABLE WITH GREEN INSULATED GROUNDING CONDUCTOR															R		
9500.01402114	14	2	14	30	0.76	0.30	7.6	0.49	12.4	50	1.27	0.60	15.2	0.29	163	243	15
9500.01403114	14	3	14	30	0.76	0.33	8.4	0.53	13.5	50	1.27	0.64	16.3	0.33	192	286	15
9500.01404114	14	4	14	30	0.76	0.37	9.4	0.58	14.7	50	1.27	0.69	17.5	0.38	222	330	15
9500.01405114	14	5	14	30	0.76	0.39	9.9	0.60	15.2	50	1.27	0.71	18.0	0.40	245	365	15
9500.01406114	14	6	14	30	0.76	0.41	10.4	0.62	15.7	50	1.27	0.73	18.5	0.42	267	397	15
9500.01408114	14	8	14	30	0.76	0.49	12.4	0.71	18.0	50	1.27	0.82	20.8	0.54	321	478	15
9500.01411114	14	11	14	30	0.76	0.57	14.5	0.80	20.3	50	1.27	0.91	23.1	0.66	395	588	12
9500.01418114	14	18	14	30	0.76	0.69	17.5	0.93	23.6	50	1.27	1.04	26.4	0.86	554	824	12
9500.01436114	14	36	14	30	0.76	0.97	24.6	1.24	31.5	50	1.27	1.35	34.3	1.45	948	1,411	10
12 AWG 7W (3.31 mm²) MULTI-CONDUCTOR CONTROL CABLE WITH GREEN INSULATED GROUNDING CONDUCTOR															R		
9500.01202112	12	2	12	30	0.76	0.34	8.6	0.53	13.5	50	1.27	0.64	16.3	0.33	200	298	20
9500.01203112	12	3	12	30	0.76	0.37	9.4	0.58	14.7	50	1.27	0.69	17.5	0.38	239	356	20
9500.01204112	12	4	12	30	0.76	0.45	11.4	0.67	17.0	50	1.27	0.78	19.8	0.48	310	461	20
9500.01205112	12	5	12	30	0.76	0.46	11.7	0.67	17.0	50	1.27	0.78	19.8	0.48	324	482	20
9500.01206112	12	6	12	30	0.76	0.47	11.9	0.67	17.0	50	1.27	0.78	19.8	0.48	338	503	20
9500.01208112	12	8	12	30	0.76	0.56	14.2	0.80	20.3	50	1.27	0.91	23.1	0.66	426	634	20
9500.01211112	12	11	12	30	0.76	0.65	16.5	0.89	22.6	50	1.27	1.00	25.4	0.80	519	772	15
9500.01218112	12	18	12	30	0.76	0.78	19.8	1.02	25.9	50	1.27	1.13	28.7	1.02	739	1,100	15
9500.01236112	12	36	12	30	0.76	1.10	27.9	1.37	34.8	50	1.27	1.48	37.6	1.74	1,302	1,938	12
10 AWG	7W (5.2	26 mm²) MULTI-	CONE	UCTO	OR CO	NTRC	L CAE	BLE W	ITH G	REE	N INSL	JLATE	D GROU	NDING CO	NDUCTO	R
9500.01002110	10	2	10	30	0.76	0.39	9.9	0.58	14.7	50	1.27	0.69	17.5	0.38	253	377	30
9500.01003110	10	3	10	30	0.76	0.41	10.4	0.62	15.7	50	1.27	0.73	18.5	0.42	303	451	30
9500.01004110	10	4	10	30	0.76	0.45	11.4	0.67	17.0	50	1.27	0.78	19.8	0.48	348	518	30
9500.01006110	10	6	10	30	0.76	0.54	13.7	0.75	19.1	50	1.27	0.86	21.8	0.59	451	671	28
9500.01008110	10	8	10	30	0.76	0.65	16.5	0.89	22.6	50	1.27	1.00	25.4	0.80	568	845	28
9500.01011110	10	11	10	30	0.76	0.75	19.1	0.97	24.6	50	1.27	1.08	27.4	0.93	704	1,048	20

Dimensions and weights are nominal; subject to industry tolerances.









¹ Cross-sectional area for cable tray fill is in accordance with NEC Section 392.22.

² Ampacities in accordance with NÉC Article 310 and Table 310.15(B)(16).
Note: Standard cables with up to and including six (6) conductors are also marked CSA Type RA90. All others are special order.