CCW® Armored Power, 2.4 kV, Nonshielded, 3/C VFD

UL Type MC-HL or MV-90, EPR, 90°C, Cable Tray Use, Sunlight-Resistant
Direct Burial, ABS CWCMC

Product Construction:

Conductor:
- Bare annealed copper per ASTM B3
- Compact stranding per ASTM B496

Extruded Strand Shield (ESS):
- Extruded thermoset semi-conductor stress control layer over conductor per ICEA S-96-659 and UL 1072

Insulation:
- 90 mils Ethylene Propylene Rubber (EPR) insulation per ICEA S-96-659 and UL 1072
- Insulation is printed 1-black, 2-red and 3-blue for phase identification

Grounding Conductors:
- Three (3) split Class B stranded bare annealed copper grounding conductors
- Sized in accordance with UL 1072 and NEC Table 250.122

Cable Assembly:
- Insulated and grounding conductors are cabled together with non-hygroscopic fillers when required
- Binder tape is applied over the cabled core

CCW Armor:
- Impervious, continuously welded and corrugated aluminum alloy sheath per UL 1072 and UL 1569
- CCW armor conductivity meets the grounding requirements of NEC Article 250

Jacket:
- Flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), yellow
- Low temperature performance meets ASTM D746 brittleness temperature at or below -40°C

Applications:

- Variable Frequency Drives: 3-conductor CCW armored cables with three (3) symmetrical grounding wires are the preferred wiring method for use with AC motors controlled by pulse-width modulated inverters in VFD applications
- CCW armored Medium-Voltage power cables offer an economical, rugged and reliable alternative to labor-intensive cable in conduit wiring methods
- For use on feeders and branch circuits in industrial power distribution systems per NEC Articles 328 and 330
- 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
- Installed on metal racks, troughs, in raceways, in cable trays or secured to supports spaced not more than six feet apart
- Installed in both exposed and concealed work, wet or dry locations, directly buried or embedded in concrete
- 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 and meets the grounding requirements of UL 1072 and the NEC
- Factory assembled and tested cable for use as an alternative to cable in conduit wiring systems

Features: (cont'd)

- General Cable's EPR insulation system has outstanding corona resistance and high dielectric strength, and it provides electrical stability under stress
- Cable meets cold impact at -40°C
- 90˚C continuous operating temperature, wet or dry
- 140˚C emergency rating
- 250˚C short circuit rating

Specifications:

Design Adherence:
- ICEA S-96-659/WC 71 Standard for Nonshielded Cables Rated 2001 – 5000 Volts
- UL 1072 Medium-Voltage Power Cables
- UL 1569 Metal Clad Cables
- UL 2225 Cables and Cable Fittings for Use in Hazardous Locations
- UL 1309 Marine Shipboard Cable

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 1072
- IEC 60332-3 Category A

Compliances:
- UL Type MV-90, UL File # E90501
- UL Type MC-HL, SUN RES, CT USE, DIR BUR, -40°C, FT4, UL File # E90496
- UL Listed Marine Shipboard, UL File # E85994
- American Bureau of Shipping (ABS) Listed for CWCMC

General Cable
Phone: 888-593-3355
www.generalcable.com

ABS
UL LISTED

CCW® Armored Power, 2.4 kV, Nonshielded, 3/C VFD

UL Type MC-HL or MV-90, EPR, 90°C, Cable Tray Use, Sunlight-Resistant Direct Burial, ABS CWCMC

CATALOG NUMBER	COND. SIZE AWG (kcmil)	NO. OF COND.	INSULATION THICKNESS mils	INSULATION THICKNESS mm	NOMINAL O.D. OVER INSULATION INCHES	NOMINAL O.D. OVER INSULATION mm	BARE GROUND AWG	NOMINAL CORE O.D. INCHES	NOMINAL CORE O.D. mm	NOMINAL ARMOR O.D. INCHES	NOMINAL ARMOR O.D. mm	JACKET THICKNESS mils	JACKET THICKNESS mm	NOMINAL OVERALL O.D. INCHES	NOMINAL OVERALL O.D. mm	APPROXIMATE NET WEIGHT LBS/ 1000 FT	APPROXIMATE NET WEIGHT kg/ 1000 m	AMPACITY IN AIR[1]	AMPACITY DIRECT BURIAL[2]
3/C WITH GROUND MC-HL OR MV-90, 90 MILS EPR, 2.4 kV, YELLOW JACKET																			
9700.00803312	8 (7/W) (8.36 mm²)	3	90	2.3	0.36	9.1	3 x #12	0.77	19.6	0.97	24.6	50	1.27	1.08	27.4	570	848	59	85
9700.00603310	6 (7/W) (13.3 mm²)	3	90	2.3	0.38	9.6	3 x #10	0.85	21.6	1.06	26.9	50	1.27	1.17	29.7	745	1,109	79	105
9700.00403310	4 (7/W) (21.2 mm²)	3	90	2.3	0.43	10.8	3 x #10	0.97	24.6	1.19	30.2	50	1.27	1.30	33.0	965	1,436	105	135
9700.00203310	2 (7/W) (33.6 mm²)	3	90	2.3	0.48	12.1	3 x #10	1.10	27.9	1.34	34.0	50	1.27	1.45	36.8	1,275	1,897	140	180
9700.00103308	1 (19/W) (42.4 mm²)	3	90	2.3	0.52	13.1	3 x #8	1.16	29.5	1.42	36.1	50	1.27	1.53	38.9	1,525	2,269	160	200
9700.11003308	1/0 (19/W) (53.5 mm²)	3	90	2.3	0.55	13.9	3 x #8	1.23	31.2	1.51	38.4	60	1.52	1.65	41.9	1,840	2,738	185	230
9700.21003308	2/0 (19/W) (67.4 mm²)	3	90	2.3	0.59	14.9	3 x #8	1.33	33.8	1.60	40.6	60	1.52	1.73	43.9	2,165	3,222	215	260
9700.41003307	4/0 (19/W) (107 mm²)	3	90	2.3	0.69	17.4	3 x #7	1.53	38.9	1.83	46.5	60	1.52	1.96	49.8	3,080	4,584	285	335
9700.25003307	250 (37/W) (127 mm²)	3	90	2.3	0.74	18.7	3 x #7	1.64	41.7	1.96	49.8	60	1.52	2.09	53.1	3,475	5,171	320	365
9700.35003306	350 (37/W) (177 mm²)	3	90	2.3	0.83	21.0	3 x #6	1.86	47.2	2.19	55.6	60	1.52	2.32	58.9	4,710	7,009	395	440
9700.50003305	500 (37/W) (253 mm²)	3	90	2.3	0.95	24.0	3 x #5	2.10	53.3	2.45	62.2	75	1.91	2.61	66.3	6,410	9,539	485	530
9700.75003304	750 (61/W) (380 mm²)	3	90	2.3	1.12	28.3	3 x #4	2.51	63.8	2.93	74.4	75	1.91	3.10	78.7	9,225	13,728	615	650
9700.10003304	1000 (61/W) (507 mm²)	3	90	2.3	1.27	32.2	3 x #4	2.90	73.7	3.41	86.6	80	2.03	3.59	91.2	12,080	17,977	705	730

Dimensions and weights are nominal, subject to industry tolerances.
[1] In-air ampacities are per NEC Table 310.60(C)(71) for three insulated copper conductors rated 90°C, cabled with an overall covering and isolated in air at 40°C ambient temperature.
[2] Direct burial ampacities are per NEC Table 310.60(C)(83) for three insulated copper conductors rated 90°C, cabled within an overall covering and directly buried in earth at 20°C ambient earth temperature.

UL LISTED

ABS

General Cable
Phone: 888-593-3355
www.generalcable.com