# CCW® Armored Power, 15 kV 100%, Shielded, 3/C

UL Type MC-HL or MV-105, CSA Type HL, EPR, 105°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 the conductor per ICEA S-93-639 and UL 1072

#### Insulation

• 175 mils Ethylene Propylene Rubber (EPR) insulation per ICEA S-93-639 and UL 1072

#### **Extruded Insulation Shield (EIS):**

 Thermoset semi-conducting polymeric layer, free stripping from the insulation per ICEA S-93-639 and UL 1072

#### Shield:

 5 mil annealed bare copper tape with 25% overlap

#### Phase Identification:

· Color-coded polymeric identification tape laid under the shield - black, red and blue

# **Grounding Conductor:**

- · Class B stranded bare annealed copper grounding conductor
- Sized in accordance with UL 1072 and NEC Article 250

#### 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 the NEC

#### Jacket:

- Flame-retardant, moisture- and sunlightresistant Polyvinyl Chloride (PVC), red
- Low temperature performance meets ASTM D746 brittleness temperature at or below -40°C

## **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
- Triple Extrusion: The strand shield, EPR insulation and insulation shield are all extruded in one operation

## Features (cont'd):

- Prysmian's EPR insulation system has outstanding corona resistance and high dielectric strength, and it provides electrical stability under stress
- Meets cold bend and cold impact at -40C
- •105°C continuous operating temperature, wet or dry
- · 140°C emergency rating
- · 250°C short circuit rating

## Specifications:

## Design Adherence:

- · ICEA S-93-639/WC74, 5-46 kV Shielded Power Cable
- AEIC CS8 Specification for Shielded Power Cable, 5-46 kV
- · 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
- · CSA C68.10

## Flame Tests:

- · IEEE 383 (70,000 BTU/hr)
- · CSA FT4
- · IEEE 1202 (70,000 BTU/hr)

## Compliances:

- · UL Type MV-105 or MC-HL, SUN RES, CT USE, DIR BUR, -40°C, FT4, UL File # E518856
- UL Listed Marine Shipboard, UL File # E85994
  CSA Type HL, SR, FT4, -40°C, CSA File # 27161
- · American Bureau of Shipping (ABS) Listed for CWCMC











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	COND. SIZE	NO.	INSULATION THICKNESS				BARE GROUND		NOMINAL CORE O.D.		NOMINAL ARMOR O.D.		JACKET THICKNESS		NOMINAL OVERALL O.D.		APPROXIMATE NET WEIGHT		AMPACITY	
CATALOG NUMBER	AWG (kcmil)	OF COND.	mils	mm	IN	mm	AWG	IN	mm	IN	mm	mils	mm	IN	mm	LBS/ 1000 FT	kg/ 1000 m	IN AIR <sup>1</sup>	DIRECT BURIAL <sup>2</sup>	
3/C WITH GROUND MC-HL OR MV-105, 175 MILS EPR, 15 kV 100% INSULATION LEVEL																				
9825.00203106	"2 (7/W) (33.6 mm²)"	3	175	4.4	0.65	16.5	6	1.61	40.9	1.96	49.8	60	1.52	2.05	52.1	2077	3091	185	200	
9825.00103104	"1 (19/W) (42.4 mm²)"	3	175	4.4	0.69	17.5	4	1.68	42.7	2.01	51.1	60	1.52	2.15	54.6	2469	3674	210	225	
9825.11003104	"1/0 (19/W) (53.5 mm²)"	3	175	4.4	0.79	19.96	4	1.74	44.1	2.15	54.6	60	1.52	2.28	57.9	2984	4440	240	255	
9825.21003104	"2/0 (19/W) (67.4 mm²)"	3	175	4.4	0.76	19.3	4	1.88	47.8	2.19	55.6	60	1.52	2.36	59.9	3130	4658	275	290	
9825.41003103	"4/0 (19/W) (107 mm²)"	3	175	4.4	0.86	21.8	3	2.09	53.1	2.45	62.2	75	1.91	2.61	66.3	4290	6384	360	375	
9825.25003102	"250 (37/W) (127 mm²)"	3	175	4.4	0.92	23.4	2	2.19	55.6	2.58	65.5	75	1.91	2.74	69.6	4775	7106	400	410	
9825.35003102	"350 (37/W) (177 mm²)"	3	175	4.4	1.01	25.7	2	2.45	62.2	2.85	72.4	75	1.91	3.01	76.5	6132	9125	490	495	
9825.50003101	"500 (37/W) (253 mm²)"	3	175	4.4	1.13	28.7	1	2.71	68.8	3.16	80.3	85	2.16	3.34	84.8	8052	11983	600	590	
9825.750031110	"750 (61/W) (380 mm²)"	3	175	4.4	1.31	33.3	1/0	3.12	79.2	3.67	93.2	85	2.16	3.85	97.8	11098	16516	745	720	









Dimensions and weights are nominal; subject to industry tolerances.

<sup>1</sup> Ampacities in air are per NEC Table 310.60(C)(71) for an insulated three-conductor copper cable isolated in air with 105°C rated conductors at a 40°C ambient temperature.

<sup>2</sup> Direct burial ampacities are per NEC Table 310.60(C)(83) for three insulated copper conductors cabled within an overall covering, directly buried in earth with 105°C rated conductors at

<sup>20°</sup>C ambient earth temperature.