

# Uniblend® CPE High Speed

EPR/Copper Tape Shield with Overall CPE Jacket, Medium-Voltage Power, Shielded  
5 kV and 8 kV, UL Type MV-105, 133%/100% Ins. Levels, 115 MILS, Three Conductor



## Product Construction:

### Conductor:

- 6 AWG thru 1000 kcmil annealed bare copper compact Class B strand

### Extruded Strand Shield (ESS):

- Extruded thermoset semi-conducting stress-control layer over conductor

### Insulation:

- Lead-free Ethylene Propylene Rubber (EPR) insulation, contrasting in color to the black semi-conducting shield layers

### Extruded Insulation Shield (EIS):

- Thermoset semi-conducting polymeric layer free stripping from insulation

### Metallic Shield:

- 5 mil annealed copper tape with an overlap of 25%

### Grounding Conductor:

- 1 bare grounding conductor may be in contact with metallic shielding tape

### Overall Jacket:

- Flame-retardant, moisture- and sunlight-resistant Chlorinated Polyethylene (CPE)

### Options:

- STRANDFILL® – blocked conductor. Tested in accordance with ICEA T-31-610



## Applications:

- Suited for use in a broad range of commercial, industrial and utility applications, where reliability is the major concern, space is limited and ease of installation is critical
- In wet or dry locations when installed in accordance with NEC
- In aerial, direct burial, conduit, open tray and underground duct installations

## Features:

- Rated at 105°C
- Excellent flame resistance – burns to an ash; does not exhibit thermoplastic drip
- Excellent heat, moisture and sunlight resistance
- Outstanding corona resistance
- Flexibility for easy handling
- High Speed low friction technology for easy cable pulling
- High dielectric strength
- Low moisture absorption
- Electrical stability under stress
- Low dielectric loss
- Chemical-resistant
- Meets cold bend test at -35°C
- 105°C rating for continuous operation
- 140°C rating for emergency overload conditions
- 250°C rating for short circuit conditions

## Compliances:

- National Electrical Code (NEC)
- UL 1072
- ICEA S-93-639/NEMA WC74
- ICEA S-97-682
- AEIC CS8
- UL listed as Type MV-105 for use in accordance with NEC, UL File # E90501
- UL 1685 (70,000 BTU/hr)
- OSHA Acceptable
- RoHS Compliant

### Optional Flame Tests:

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

## Packaging:

- Material cut to length and shipped on non-returnable wood reels. Lengths in excess of 10,000 lbs. are provided on returnable steel reels that require a deposit
- Extra charges apply for cuts less than 1000 ft., lagging, pulling eyes, paralleling and plexing

CATALOG NUMBER	COND. SIZE (AWG/kcmil)	NOMINAL CONDUCTOR DIAMETER		INSULATION DIAMETER INCHES		GROUND WIRE (AWG)	NOMINAL JACKET THICKNESS		NOMINAL CABLE				COPPER WEIGHT		AMPACITY					
		INCHES	MIN.	MAX.	INCHES		mm	DIAMETER		WEIGHT		CONDUIT IN AIR (1)			UNDERGROUND DUCT (2)		TRAY (3)			
								INCHES	mm	LBS/1000 FT	kg/km	LBS/1000 FT	kg/km	90°C	105°C	90°C	105°C	90°C	105°C	
<b>5 kV AND 8 kV, UL TYPE MV-105, 133%/100% INS. LEVELS, 115 MILS</b>																				
15593.400605*	6	0.17	0.415	0.490	6	0.080	2.03	1.29	32.77	939	1397	460	685	83	92	88	95	93	105	
15593.400405*	4	0.22	0.455	0.535	6	0.080	2.03	1.39	35.31	1158	1723	616	917	105	120	115	125	120	135	
15593.400205*	2	0.27	0.510	0.590	6	0.080	2.03	1.51	38.35	1511	2249	860	1279	145	165	150	160	165	185	
15593.405105*	1/0	0.34	0.580	0.655	4	0.080	2.03	1.67	42.42	2030	3021	1290	1919	195	215	195	210	215	240	
15593.405205*	2/0	0.38	0.620	0.695	4	0.080	2.03	1.82	46.23	2449	3645	1556	2315	220	245	220	235	245	275	
15593.405405*	4/0	0.48	0.720	0.795	3	0.110	2.79	2.07	52.58	3438	5116	2344	3488	290	320	285	305	325	360	
15593.406005*	250	0.53	0.770	0.850	2	0.110	2.79	2.15	54.61	3968	5904	2759	4105	315	350	310	335	360	400	
15593.406205*	350	0.62	0.870	0.945	2	0.110	2.79	2.36	59.94	5009	7454	3713	5525	385	430	375	400	435	490	
15593.406505*	500	0.74	0.990	1.065	1	0.110	2.79	2.64	67.06	6793	10065	5191	7724	470	525	450	485	535	600	
15593.407005*	750	0.91	1.170	1.250	1/0	0.140	3.56	3.14	79.76	9833	14633	7629	11352	570	635	545	585	670	745	
15593.407505*	1000	1.06	1.320	1.400	2/0	0.140	3.56	3.48	88.39	12601	18753	10070	14985	650	725	615	660	770	860	

Dimensions and weights are nominal. Subject to industry tolerances.

\* Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.

(1) Ampacities are in accordance with Table 310.60(C)(75) of the NEC for three conductor copper cable in isolated conduit in air based on a conductor temperature of 90°C (194°F) or 105°C (221°F), temperature denoted in column header, and an ambient air temperature of 40°C (104°F).

(2) Ampacities are in accordance with Table 310.60(C)(79) of the NEC for three conductor copper cable in underground ducts (three conductors per duct), based on a conductor temperature of 90°C (194°F) or 105°C (221°F), temperature denoted in column header, and an ambient earth temperature of 20°C (68°F), electrical duct arrangement per Figure 310.60 Detail 1, 100% load factor, and earth thermal resistance (rho) of 90.

(3) Ampacities are based on three conductor Type MV-105 cables in single layer in an uncovered tray with maintained spacing of not less than one cable diameter between cables, in accordance with Section 392.80(B)(1) of the NEC at an ambient air temperature of 40°C (104°F); the ampacities are per Table 310.60(C)(71), operating temperature denoted in column header. For cable trays with unventilated covers for more than 6 feet, the ampacities shall not exceed 95% of the values in NEC Table 310.60(C)(75).

Note: a) All sizes are "FOR CT USE".

b) The NESC Lightning bolt symbol is on all Uniblend® constructions.