



# Uniblend® CPE High Speed

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



## 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%

### Jacket:

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

### Print:

- GENERAL CABLE® (PLANT OF MFG) (MO/YR OF MANUFACTURE) LIGHTNING BOLT SYMBOL 1/C SIZE (AWG OR KCMIL) COMPACT CU UNIBLEND® XLF CPE JKT (INSULATION

## Print (cont'd):

THICKNESS) EPR TYPE MV-105 (VOLTAGE) KV%  
INSULATION LEVEL SUN RES FOR CT USE (UL)  
SEQUENTIAL FOOTAGE MARK

\* Sizes smaller than 1/0 AWG do not include "FOR CT USE".

### Options:

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

## Applications:

- Superior performance in petrochemical plants, pulp and paper mills, sewage and water treatment plants, environmental protection systems, railroads, mines, utility power generating stations, steel mills, textile plants and other industrial three-phase applications
- For use in wet or dry locations when installed in accordance with NEC
- For use in aerial, conduit, open tray and underground duct installations
- For use in direct burial if installed in a system with a ground conductor that is in close proximity, and conforms with NEC 250.4(A)(5)

## Features:

- Rated at 105°C
- Excellent heat and moisture resistance
- Excellent flame resistance

## Features (cont'd):

- Outstanding corona resistance
- Flexibility for easy handling
- Low friction for easy 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
- AEC CS8
- UL listed as Type MV-105 for use in accordance with NEC, UL File # E90501
- UL 1685 (Sizes 1/0 AWG and larger) UL Flame Exposure Test
- Sizes 1/0 AWG and larger are listed and marked "Sunlight-Resistant FOR CT USE" in accordance with NEC
- IEEE 1202 (70,000 BTU/hr)/CSA FT4
- EPA 40 CFR, Part 261 for leachable lead content per TCLP method
- OSHA Acceptable
- RoHS Compliant

## 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 triplexing

CATALOG NUMBER	COND. SIZE (AWG/ kcmil)	NOMINAL CONDUCTOR DIAMETER	INSULATION DIAMETER INCHES		NOMINAL JACKET THICKNESS		NOMINAL CABLE				COPPER WEIGHT		AMPACITY						CONDUIT SIZING (4) (INCHES)
							DIAMETER		WEIGHT				CONDUIT IN AIR (1)		UNDERGROUND DUCT (2)		TRAY (3)		
		INCHES	MIN.	MAX.	INCHES	mm	INCHES	mm	LBS/1000 FT	kg/km	LBS/1000 FT	kg/km	90°C	105°C	90°C	105°C	90°C	105°C	
5 kV AND 8 kV, UL TYPE MV-105, 133%/100% INS. LEVELS, 115 MILS																			
17101.120605*	6	0.17	0.415	0.490	0.060	1.52	0.65	16.51	293	436	126	188	83	93	90	97	-	-	2
17101.120405*	4	0.22	0.455	0.535	0.060	1.52	0.70	17.15	363	540	178	265	110	120	115	125	-	-	2.5
17101.120205	2	0.27	0.510	0.590	0.060	1.52	0.76	19.05	469	698	259	385	150	165	155	165	-	-	2.5
17101.120105*	1	0.31	0.545	0.620	0.060	1.52	0.79	20.07	537	799	315	468	170	190	175	185	-	-	2.5
17101.125105	1/0	0.34	0.580	0.655	0.060	1.52	0.82	21.08	621	924	386	575	195	215	200	215	195	220	3
17101.125205	2/0	0.38	0.620	0.695	0.060	1.52	0.86	22.10	726	1080	474	706	225	255	230	245	225	250	3
17101.125305*	3/0	0.43	0.665	0.745	0.080	2.03	0.94	24.38	883	1314	585	871	260	290	260	275	260	290	3
17101.135405	4/0	0.48	0.720	0.795	0.080	2.03	1.00	25.65	1049	1561	725	1080	295	330	295	315	300	335	3
17101.136005	250	0.53	0.770	0.850	0.080	2.03	1.05	27.18	1195	1778	849	1263	330	365	325	345	335	370	3.5
17101.136205	350	0.62	0.870	0.945	0.080	2.03	1.14	29.72	1555	2314	1165	1735	395	440	390	415	415	460	3.5
17101.136505	500	0.74	0.990	1.065	0.080	2.03	1.27	33.53	2083	3100	1639	2439	480	535	465	500	515	575	4
17101.137005	750	0.91	1.170	1.250	0.080	2.03	1.45	38.35	2981	4436	2427	3611	585	655	565	610	665	745	5
17101.137505*	1000	1.06	1.320	1.400	0.080	2.03	1.60	42.42	3808	5666	3210	4777	675	755	640	690	795	890	5

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)(73) of the NEC for triplexed or three single conductor copper cables 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)(77) of the NEC for triplexed or three single conductor copper cables 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 single conductor Type MV-105 sizes #1/0 AWG and larger in an uncovered tray in accordance with Section 392.80(B)(2) of the NEC at an ambient air temperature of 40°C (104°F) the ampacities are based on 75% of the values per Table 310.60(C)(69), operating temperature denoted in column header. For cable trays with unventilated covers for more than 6 feet, the ampacities shall not exceed 70% of the values per Table 310.60(C)(69).

(4) Based on nominal cable diameters, three single cables in the duct (PVC Schedule 40) with no ground wire and a maximum of 40% fill. Jam ratio has been considered but should be checked for individual installations.

Note: a) Sizes smaller than 1/0 AWG do not include "FOR CT USE".

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

