

# GenFree® Uniblend® High Speed

EPR/Copper Tape Shield/LSZH, Medium-Voltage Power, Shielded  
25 kV and 35 kV, UL Type MV-105/ST1, 133%/100% Ins. Levels, 345 MILS



**Product Construction:**

**Conductor:**

- 1/0 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%

**Overall Jacket:**

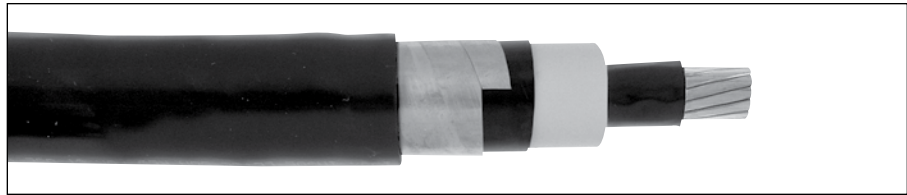
- Lead-free, moisture- and sunlight-resistant Low-Smoke, Zero-Halogen Polyolefin (LSZH)

**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



**Applications (cont'd.):**

- 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, moisture and sunlight resistance
- Excellent flame 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
- ICEA T-33-655
- 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
- UL 1685 Vertical Flame and ST1 Smoke Release 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 INCHES	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	mm	LBS/1000 FT	kg/km	LBS/1000 FT			kg/km	90°C	105°C	90°C	105°C	90°C	
<b>25 kV &amp; 35 kV, UL TYPE MV-105, 133%/100% INS. LEVEL, 345 MILS</b>																				
17261.135105*	1/0	0.34	1.020	1.120	0.080	2.03	1.31	33.27	1090	1622	425	633	195	215	200	215	195	220	5	
17261.135205*	2/0	0.38	1.060	1.160	0.080	2.03	1.35	34.29	1211	1802	514	765	225	255	230	245	225	250	5	
17261.135305*	3/0	0.43	1.105	1.205	0.080	2.03	1.40	35.56	1360	2024	625	930	260	290	260	275	260	285	5	
17261.135405*	4/0	0.48	1.160	1.260	0.080	2.03	1.45	36.83	1547	2302	765	1138	295	330	295	315	295	335	5	
17261.136005*	250	0.53	1.210	1.315	0.080	2.03	1.51	38.35	1712	2547	888	1322	330	365	325	345	330	370	5	
17261.136205*	350	0.62	1.310	1.410	0.080	2.03	1.60	40.64	2108	3137	1206	1794	395	440	390	415	410	455	5	
17261.136505*	500	0.74	1.430	1.530	0.080	2.03	1.72	45.21	2650	4141	1679	2498	480	535	465	500	510	565	6	
17261.137005*	750	0.91	1.610	1.710	0.110	2.79	1.96	49.78	3733	5555	2467	3670	585	655	565	610	655	730	6	
17261.137505*	1000	1.06	1.760	1.865	0.110	2.79	2.10	53.59	4651	6921	3250	4836	675	755	640	690	780	870	8	

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)(7) 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)(7) 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.

¥ 100% insulation level is available upon request.

¥¥ 133% insulation level is available upon request.

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.

