

AIRGUARD®

EPR/Copper Tape Shield/Polymeric Armor/PVC, Shielded  
UL Type MV-105, 35kV, 133% Ins. Level

Product Construction:

- Conductor:
- 1/0 AWG thru 1000 kcmil annealed bare copper per ASTM B3
  - Compact Class B stranding per ASTM B496

- Extruded Strand Shield (ESS):
- Extruded thermoset semi-conducting stress-control layer over conductor

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

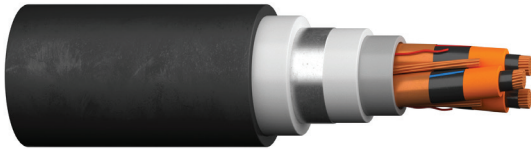
- Extruded Insulation Shield (EIS):
- Thermoset semi-conducting polymeric layer free stripping from insulation

- Metallic Shield:
- Annealed copper tape with an overlap of 25%

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

- Polymeric Armor:
- High strength and high crush resistant Air Bag™ layer extruded over the core assembly

- Overall Jacket:
- Lead-free, flame-retardant, sunlight-resistant Polyvinyl Chloride (PVC)



- 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 heat, moisture and sunlight resistance
  - Outstanding corona resistance
  - Flexibility for easy handling
  - High dielectric strength
  - Low moisture absorption
  - Electrical stability under stress
  - Low dielectric loss
  - Chemical-resistant
  - Meets cold bend and cold impact test at -40°C
  - 105°C rating for continuous operation
  - 140°C rating for emergency overload conditions
  - 250°C rating for short circuit conditions

- Compliances:
- Industry Compliances:
- UL 1072 Type MV105, UL File # E518856
  - ICEA S-93-639 / NEMA WC74
  - ICEA S-97-682
  - AEIC CS8-13 ( AEIC CS8-20, Optional)
- Flame Test Compliances:
- UL 1685 Vertical Flame Test
  - IEEE 1202
  - CSA FT4
- Other Compliances:
- EPA 40 CFR, Part 261 for leachable lead content per TCLP
  - OSHA Acceptable
- Packaging:
- Material cut to length and shipped on non-returnable wood reels

PRODUCT NUMBER	CIRCUIT CONDUCTOR SIZE (AWG)	INSULATION THICKNESS (mils)	GROUND WIRES		NOM. COND. O.D. (in)	NOM. INSULATION O.D. (in)	NOM. EIS O.D. (in)	NOM. OVERALL CABLE O.D. (IN)	CABLE WEIGHT (lbs/kft)	†AMPACITY (AMPS)					
										CONDUIT IN AIR (1)		UNDERGROUND DUCT (2)		UNCOVERED TRAY (3)	
			#	Size						90°C	105°C	90°C	105°C	90°C	105°C

35kV 133% Copper Three Conductor

10650.11003308	1/0 AWG CU	420	3	#8	0.34	1.22	1.27	3.39	6291	195	215	195	210	215	240
10650.21003308	2/0 AWG CU	420	3	#8	0.38	1.24	1.31	3.50	7326	220	245	220	235	245	275
10650.41003307	4/0 AWG CU	420	3	#7	0.47	1.35	1.41	3.69	8130	290	320	285	305	325	360
10650.25003306	250 AWG CU	420	3	#6	0.53	1.40	1.46	3.78	9472	315	350	310	335	360	400
10650.35003306	350 MCM CU	420	3	#6	0.62	1.5	1.56	4.02	11116	385	430	375	400	435	490
10650.50003305	500 MCM CU	420	3	#5	0.74	1.62	1.68	4.30	12697	470	525	450	485	535	600
10650.75003304	750 MCM CU	420	3	#4	0.92	1.81	1.86	4.73	16566	570	635	545	585	670	745
10650.10003303	1000 MCM CU	420	3	#3	1.07	1.96	2.05	5.00	20786	650	725	615	660	770	860

The above dimensions are approximate and subject to normal manufacturing tolerances.

†Ampacities are based on the following:

(1) Ampacities are in accordance with Table 315.60(C)(9) of the 2023 NEC for three 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 315.60(C)(13) of the 2023 NEC for three 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 315.60(D)(3) Detail 1, 100% load factor, and earth thermal resistance (rho) of 90.

(3) Ampacities are based on three conductor cables installed with at least one OD between cables in an uncovered tray in accordance with Section 392.80(B)(1)(2) of the 2023 NEC at an ambient air temperature of 40°C (104°F); the ampacities are based on 100% of the values per Table 315.60(C)(5), operating temperature denoted in column header.

EPROTENAX™ EPR-insulated cables are capable of operating at 105°C. However, the maximum operating temperature of the cable should be based on the maximum operating temperature of the cable accessories to be used.