

## Medium Voltage AIRGUARD® Overview

Prysmian's patented AIRGUARD® cable is a direct replacement for continuously corrugated and welded aluminum armored cables (\*in Class 1 Div 2 locations) with 5X the impact performance and up to 3X the sidewall bearing pressure limit (at 3000 lbs per rad-ft) This enables longer pulls than with CCW type cables. Please call in regards to the product literature and performance testing and videos.

Three conductor cable with stranded copper conductors, extruded insulation system consisting of a thermosetting semiconducting conductor shield, high dielectric strength EPROTENAX™ EPR insulation, thermosetting semiconducting insulation shield, helically applied bare copper tape shield, cabled with fillers and grounding conductors, overall binder tape, foamed polymeric AIR BAG™ layer for superior mechanical protection, longitudinally applied aluminum tape, extruded oil and hydrocarbon resistant polymeric DRYLAM™ layer, and overall sunlight resistant PVC jacket. Suitable for Class I Division 2 locations.

### DESIGN PARAMETERS

**CONDUCTOR:** Class B Compact concentric strand soft drawn annealed copper per ASTM.

**CONDUCTOR SHIELD:** Extruded thermosetting semiconducting shield which is free stripping from the conductor and bonded to the insulation.

**INSULATION:** Natural high dielectric strength EPROTENAX™ EPR-based insulation, combined with other materials and agents that enhance the electrical and mechanical characteristics assuring extended cable life.

**INSULATION SHIELD:** Extruded thermosetting semiconducting shield with controlled adhesion to the insulation providing the required balance between electrical integrity and ease of stripping.

**METALLIC SHIELD:** Helically applied non-magnetic copper tape(s) over the insulation shield with a nominal overlap of 25%. A mylar ribbon is longitudinally applied under the copper tape shield for phase identification - 1C w/ Red, 1C w/ Blue, and 1C w/ Black.

**GROUNDING CONDUCTORS:** Bare stranded copper conductor per UL, ICEA, and ASTM.

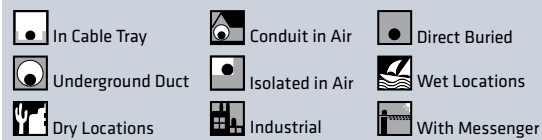
**ASSEMBLY:** Phase identified conductors cabled with fillers and grounding conductors, forming a firm and cylindrical cable core. A binder tape is applied to maintain core symmetry and mechanical stability.

**MECHANICAL PROTECTION:** High strength and high crush resistant AIR BAG layer extruded over the core assembly.

**CHEMICAL PROTECTION:** A layer of DRYLAM™ which consists of a 6mil longitudinally applied aluminum tape and a chemical resistant extruded polymer layer is applied.

**JACKET:** Sunlight and moisture resistant polyvinyl chloride (PVC) jacket.

#### INSTALLATION



#### OPTIONS

- Mine Power Type MP-GC
- Colored Jackets
- Low Smoke Zero Halogen Jacket
- Manufactured to CSA
- 100% Insulation Level

#### SPECIFICATIONS RATINGS

ICEA S-93-639  
(NEMA WC74)

UL 1072 Type MV-105, For CT USE  
Direct Buried/Sunlight Resistant

IEEE Flame Retardant

UL 1277 TC-ER Exposed Run Rating

CSA CSA FT4 Flame Test  
CSA Cold Impact/Bend Test (-40C)

MSHA Type MP and Type MP-GC

IEEE 1580 Marine Shipboard Cable Rating

ABS American Bureau of Shipping Type Approval

## Medium Voltage AIRGUARD® Product Range

Product Number	Conductor	Insulation Thickness (mils)	Ground Wires		Conductor Diameter (in)	Insulation Diameter (in)	Insulation Shield Diameter (in)	Overall Jacket Diameter (in)	Cable Weight (lbs/kft)	Minimum Bending Radius (in)	± Ampacity (Amps)		† † Impedance (micro-ohms/ft)	
			#	Size							†105°C In Duct	†105°C In Air/Tray	Pos/Neg Seq.	Zero Seq.
<b>5kV 133%/8kV 100% Copper Three Conductor</b>														
2-035KVAIRGUARD	2 AWG CU	115	3	#10	0.271	0.56	0.6	1.85	2182	12	160	185	212 + j42	1134 + j26
1/0-035KVAIRGUARD	1/0 AWG CU	115	3	#8	0.339	0.63	0.68	2.05	2914	14	210	240	134 + j39	954 + j22
2/0-035KVAIRGUARD	2/0 AWG CU	115	3	#8	0.380	0.67	0.71	2.13	3281	14	235	275	106 + j37	888 + j21
4/0-035KVAIRGUARD	4/0 AWG CU	115	3	#7	0.470	0.76	0.76	2.32	4344	16	305	360	67 + j35	752 + j19
250-035KVAIRGUARD	250 AWG CU	115	3	#6	0.525	0.82	0.86	2.46	4974	17	335	400	57 + j34	704 + j18
350-035KVAIRGUARD	350 AWG CU	115	3	#6	0.622	0.91	0.96	2.67	6247	18	400	490	41 + j32	622 + j16
500-035KVAIRGUARD	500 AWG CU	115	3	#5	0.743	1.03	1.08	3.00	8349	20	485	600	29 + j31	548 + j15
750-035KVAIRGUARD	750 AWG CU	115	3	#4	0.917	1.22	1.27	3.44	11635	23	585	745	20 + j30	465 + j13
<b>15kV 133% Copper Three Conductor</b>														
2-0315KVAIRGUARD	2 AWG CU	220	3	#10	0.271	0.76	0.8	2.34	3147	16	160	185	212 + j49	898 + j33
1/0-0315KVAIRGUARD	1/0 AWG CU	220	3	#8	0.339	0.83	0.88	2.48	3830	17	210	240	134 + j44	763 + j28
2/0-0315KVAIRGUARD	2/0 AWG CU	220	3	#8	0.380	0.86	0.91	2.56	4228	17	235	275	107 + j43	710 + j27
4/0-0315KVAIRGUARD	4/0 AWG CU	220	3	#7	0.470	0.96	1.02	2.75	5370	19	305	360	67 + j40	612 + j24
250-0315KVAIRGUARD	250 MCM CU	220	3	#6	0.525	1.01	1.06	2.89	6054	20	335	400	57 + j39	577 + j23
350-0315KVAIRGUARD	350 MCM CU	220	3	#6	0.622	1.11	1.16	3.20	7652	22	400	490	41 + j37	518 + j21
500-0315KVAIRGUARD	500 MCM CU	220	3	#5	0.743	1.23	1.28	3.48	9745	24	485	600	29 + j34	463 + j19
750-0315KVAIRGUARD	750 MCM CU	220	3	#4	0.917	1.42	1.47	3.87	13102	26	585	745	20 + j33	401 + j17
1000-0315KVAIRGUARD	1000 MCM CU	220	3	#3	1.071	1.57	1.62	4.22	16432	30	660	860	16 + j32	361 + j16

## Prysmian Cable Gland Selector Chart

	2 AWG	1/0 AWG	2/0 AWG	4/0 AWG	250 kcmil	350 kcmil	500 kcmil	750 kcmil	1000 kcmil
5kV 133%/8kV, 100%	494NE-38V	494NE-38V	494NE-44V	494NE-45V	494NE-45V	494AG-09V	494AG-10V	494AG-10V	494AG-11V
15kV, 133%	494NE-45V	494AG-09V	494AG-09V	494AG-09V	494AG-09V	494AG-10V	494AG-11V	494AG-11V	494AG-12V
25kV, 133%		494AG-09V	494AG-10V	494AG-10V	494AG-10V	494AG-11V	494AG-11V	494AG-12V	494AG-13V
35kV, 133%		494AG-10V	494AG-11V	494AG-11V	494AG-11V	494AG-12V	494AG-12V	494AG-13V	494AG-13V