



SANTÉ SÉCURITÉ ■ HEALTH AND SAFETY

***SAFE TO
THRIVE***



ARC FLASH PROTECTION PRODUCTS CATALOG

The Electrical Safety Catalog is designed for people working around high-voltage hazards and is based on [CSA Z462](#) and [NFPA 70E](#), Electrical Safety in the Workplace.

By regulation, employers must implement and document a comprehensive electrical safety program that frames activities appropriate to the electrical hazards, voltage, energy level and circuit conditions in and around the workplace.

Personal protective equipment (PPE)

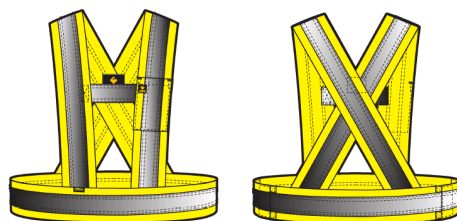
Workers working in areas where electrical hazards exist must have and use protective equipment designed and manufactured to suit the parts of the body to be protected and the nature of the work to be carried out. The equipment is designed to protect workers from arcs and electric shocks. Although some situations may result in skin burns even with the protection used, these burns are likely to be small and non-fatal. Protective equipment must be maintained in a safe and reliable condition, visually inspected before each use, and stored away from deterioration due to moisture, dust or other agents.

** In the new update to [CSA Z462-24](#), the clothing category has been replaced by the minimum arc exposure level (4 cal/cm², 8 cal/cm², 25 cal/cm², 40 cal/cm² and 75 cal/cm²). Although the standard has only just been amended, the display of protective equipment in the document retains the category nomenclature based on the [NFPA 70E](#).*

Icons used	Purpose	Standards	Description	Test	Description
Clothing 	Arc Flash	ASTM F1506	Certification for flame- and arc-resistant protective <u>fabric garments</u>	ASTM F1959 (ATPV xx cal/cm ²)	Measures the thermal protection of fabric against electric arcs. Level of protection divided into 4 classification categories according to NFPA 70e (ATPV xx cal/cm ²)*. Categories: 1 - (4 cal/cm ²) / 2 - (8 cal/cm ²) / 3 - (25 cal/cm ²) / 4 - (40 cal/cm ²)
Clothing 	Arc Flash	ASTM F1891	Certification for flame- and arc-resistant protective <u>rainwear</u>		

Same basis for all 3 classes:

A. X on back, bands across shoulders and around waist.



B. Retroreflective tape material



Class 1: Low Risk

A+B combined with covering the torso with a non-high-visibility material (e.g. black fabric of the shell of a garment)

Class 2: Moderate risk

A+B combined with fluorescent material and torso coverage with high-visibility or brightly colored material (orange or yellow fabric on garment shell)

Class 3: High risk

A+B combined with fluorescent material and torso coverage with high-visibility or brightly colored material (orange or yellow fabric on garment shell) with the addition of arm and leg bands.

Exemple Class 1



VCKF06

Exemple Class 2



VHKAD6

Exemple Class 3

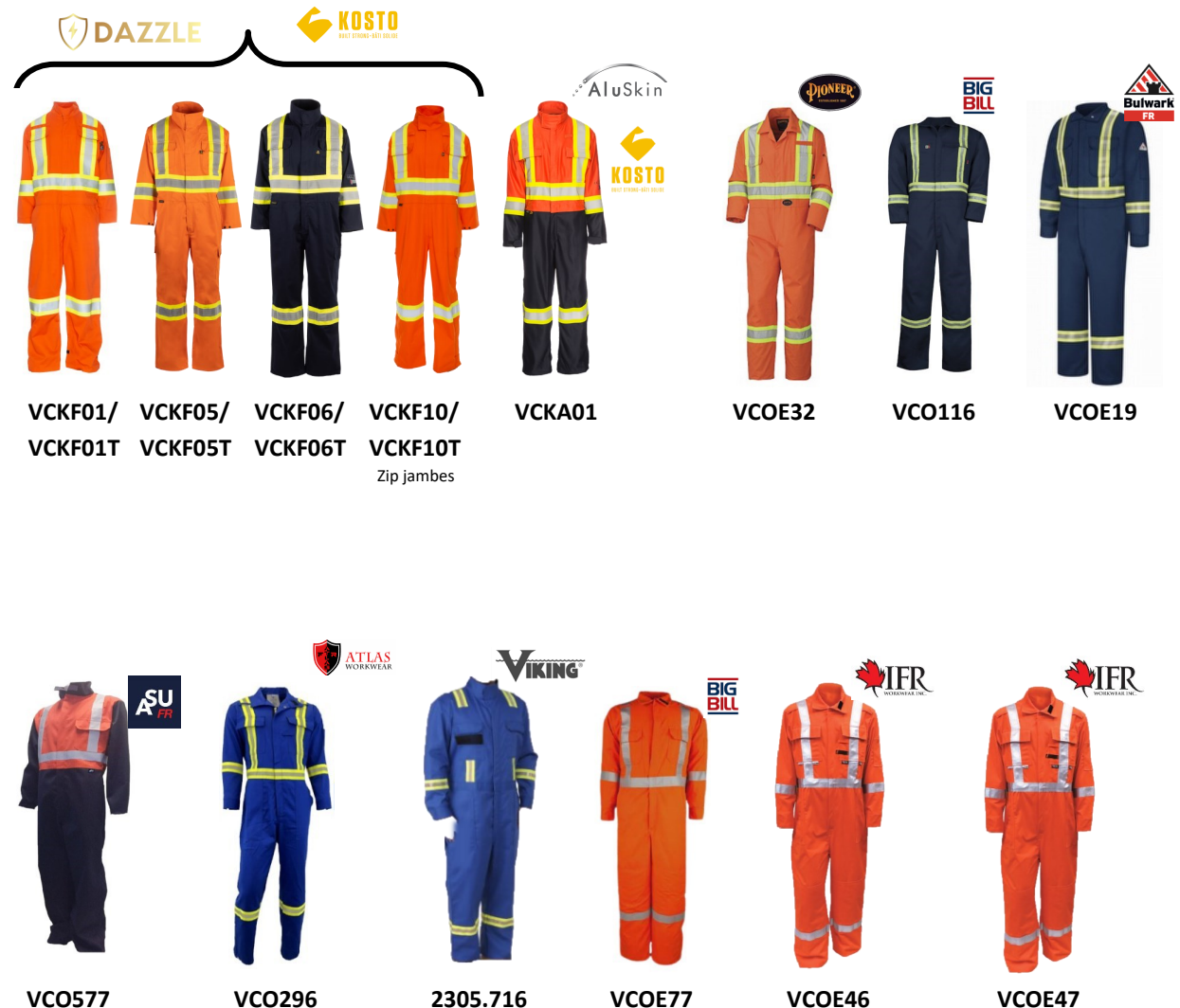


VCKF01

* Based on [CSA-Z96-22](#)

Touch the image to discover the product

	 ATPV (cal/cm ²)	Class CSAZ-96 
VCKF01	9.2	3
VCKF05	14	3
VCKF06	14	1
VCKF10	14	3
VCKA01	12	1
VCOE32	11	3
VCO116	8.7	1
VCOE19	12.2	1
VCO577	12.8	1
VCO296	12	1
23065.716	12.4	
VCOE77	8.9	1
VCOE46	8.7	1
VCOE47	12.4	1



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	 ATPV (cal/cm²)	Class CSAZ-96 
VHKA01	12	
VHKA60	12	2
VHKAD6	12	2
VCHE17	8.9	2
VCHE38	8.7	2
VSA145	12.8	2
235US9	12.4	1
CR-235US7NVY	8.7	1
VCH052	8.7	
VCHE04	8.5	
VCHE72	9	



VHKA01



VHKA60



VHKAD6



VCHE17



VCHE38



VSA145



235US9



CR-235US7NVY



VCH052



VCHE04



VCHE72

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	 ATPV (cal/cm²)	Class CSAZ-96 
VGIZ28	16.4	2
VGI461	9.1	
VGIE04	9.6	
DW5KI6-NV	8.9	
DW18KI6	8.9	
VGI331	6.1	
VCL074	6.1	
VSAE07	15	
VSAE17	8.9	2
715005Z	12.4	



VGIZ28



VGI461



VGIE04



DW5KI6-NV



DW18KI6

Underwear



VGI331

VCL074



VSAE07



VSAE17



715005Z

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discover the product

	 ATPV (cal/cm²)
VPKA3	12
VPKA21	12
VPKAD6	12
VPAE72	9
VPA596	12.8
VPAE100	12.4
VPA719	13
VPAE42	12.4
VPA717	13
VPA700	13
3239US9	12.4
VPAE18	10
2947US9	12.4



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	 ATPV (cal/cm²)	Classe CSAZ-96 
VMKF60/ VPKF60	24	2 et 3*
VGKF65	15	2
VMAE48 / VPAE48	10	2 et 3*
RT27IT14	17	2
VMAE19	27.7	
VMAE12	14.4	2
VGIE77	15	2
DW16S11	17	
VGI462	17	
SVE175	8.7	2



* Devient classe 3 lorsque le manteau et le pantalon sont portés en ensemble

PROTECTIVE CLOTHING

Lined Clothing

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	 2 ATPV (cal/ cm²)	 3 ATPV (cal/ cm²)	 4 ATPV (cal/ cm²)	Class CSAZ-96 
VMKF70 / VPKF70			40	2 et 3*
VMA173 / VCO289			40.6	2 et 3*
VMAE07 / VSAE08		34		2 et 3*
CN-5533 / CN-5534			58	
VMAE03			52	
VMAA10			46	1
2015TL	18.6			1
VMAE21	18.6			2
VMA241		32		
VMAX80			41	2
CL348US9	12.4			
VCKF70			40	3



VMKF70



VPKF70



VMA173



VCO289



VMAE07



VSAE08



CN-5533



CN-5534



VMAE03



VMAA10



2015TL



VMAE21



VMA241



VMAX80



CL348US9



VCKF70

* Becomes class 3 when coat and pants are worn as a set

Cut protection

To reduce injuries where there is a risk of cuts, it is essential to select the appropriate cut level for the task in hand.

Product performance is based on the American standard [ANSI / ISEA 105-2016](#), which uses a nine-level scale and measures cut resistance ranging from 0 to 6000 grams. Tests are carried out in the laboratory using a tomodynamometer that moves the blade over the material. The greater the weight required to cut the material, the higher the cut resistance index. A higher index offers the user better protection and cutting performance.

Number of grams required to cut through the material:



≥ 1000g

Designed for minimal risks and protection against light cuts.



≥ 1500g

Designed for medium cutting risks.



≥ 2200g

Designed for medium to high cutting risks.



≥ 3000g

Designed for higher, more severe cutting risks.

Protection against electric shock

Electrical insulating gloves are classified by voltage protection level according to [ASTM F2675](#) and are designed to protect workers against electric shock. They are made of insulating materials, such as rubber, and prevent the passage of electric current to the human body.

They are classified into several categories, called classes, which define the level of protection according to the maximum voltage they can withstand. Here are the main classes:

- **Class 00** : Protection up to 500 V. / **Class 0**: Protection up to 1,000 V. / **Class 1**: Protection up to 7,500 V. **Class 2**: Protection up to 17,000 V. / **Class 3**: Protection up to 26,500 V. / **Class 4**: Protection up to 36,000 V. Every glove must be regularly tested and inspected to ensure its effectiveness, as even the slightest damage can compromise its insulating capacity.

Arc flash protection

Electric arcs are a major hazard in many industrial environments. To protect workers from these hazards, rigorous standards have been established. ASTM F2675 specifies a test method for determining the resistance of protective gloves to the thermal effects of an electric arc.

Icons used	Purpose	Standards	Description	Test	Description
Gants 	Arc Flash	ASTM F2675	Certification for flame- and arc-resistant protective <u>gloves</u>	ASTM F2675 (ATPV xx cal/cm ²)	Measures the glove's thermal protection against electric arcs. Level of protection divided into 4 classification categories according to NFPA 70e (ATPV xx cal/cm ²)*. Categories: 1 - (4 cal/cm ²) / 2 - (8 cal/cm ²) / 3 - (25 cal/cm ²) / 4 - (40 cal/cm ²)

HAND PROTECTION

Gloves

	 2 ATPV (cal/ cm²)	 3 ATPV (cal/ cm²)	 4 ATPV (cal/ cm²)	Cut / Class
MGV142		36		A4
GL-378GOBTKL			49	A4
GL-378GOBKL			40	A4
MGV164		36		A4
MGGX18		36		A5
MGV127		37.5		A6
MGG366		35		A5
MGV375		34		A4
MGV306		32		A6
MGV316		32		A6
MGV289			60	A5
MGC429	11			A3
MGCW01	9.4			A5
MGK001				Class 0
MGJ117	18.9			Class 0

MGJ118



MGV142



GL-378GOBTKL



GL-378GOBKL



MGV164



MGGX18



MGV127



MGG366



MGV375



MGV306



MGV316



MGV289

Electrical insulating gloves and covers



MGC429



MGCW01



MGK001



MGJ117



MGJ118

ARC FLASH PROTECTION

Protection against electrical hazards

The Canadian [CSA Z94.1](#) standard ensures that all workers always use head protection equipment that conforms to and is adapted to their work environment. It covers safety helmets for workers in the construction, mining, utilities and forestry industries. It defines the areas of the head that must be protected, and sets out the minimum characteristics required in terms of dielectric rigidity, shock absorption, object penetration resistance and stability, flammability of the shell and ignition resistance of the liner.

Type 1 - Head protection only - recommended when it can be demonstrated that there are no side impact hazards.

Class E - Safety helmet material must be non-conductive and is tested to provide dielectric protection against an applied voltage that increases at a uniform rate of 1000 ± 50 V/s up to a maximum voltage of $20,000 \text{ V} \pm 3\%$, which is maintained for 3 minutes.

The U.S. [ANSI/ISEA Z89.1](#) standard - Industrial Head Protection - describes the types and classes, tests and performance requirements for hard hats. It includes recommended safety requirements for authorities considering regulations or codes concerning the use of hard hats.

Arc flash protection

The [ASTM F2178](#) standard is specifically designed to evaluate and certify facial protection against the thermal hazards of an electric arc. This standard establishes the test methods and performance criteria to be met by personal protective equipment (PPE) designed to protect the face, such as face shields, visors and safety glasses.

In this test, the PPE is exposed to an intense heat source simulating the conditions of an electric arc. Sensors measure the amount of thermal energy passing through the equipment and reaching the face of a dummy. The results obtained are used to determine the arc-proof rating of the PPE, expressed in ATPV (Arc Thermal Performance Value).

Icons used	Purpose	Standards	Description	Test	Description
Faceshield 	Arc Flash	ASTM F2178	Certification for flame and arc flash resistant <u>faceshields</u>	ASTM F2178 (ATPV xx cal/cm ²)	Measures the faceshield's thermal protection against arc flash. Level of protection divided into 4 rating categories according to NFPA 70e (ATPV xx cal/cm ²)* categories. Categories: 1 - (4 cal/cm ²) / 2 - (8 cal/cm ²) / 3 - (25 cal/cm ²) / 4 - (40 cal/cm ²)

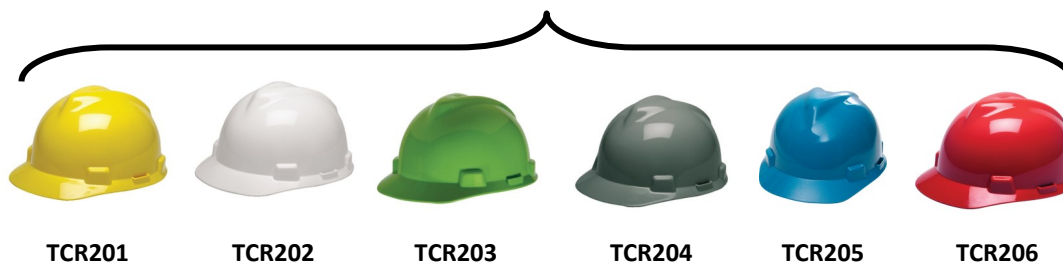
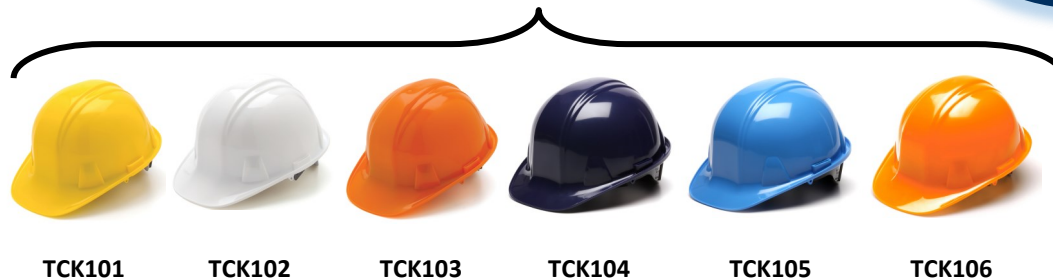
HEAD PROTECTION

Hard hats and accessories



Touch the image to discover the product

	 ATPV (cal/cm²)	 ATPV (cal/cm²)	Type	Class
TCK101			1	E
TCK102			1	E
TCK103			1	E
TCK104			1	E
TCK105			1	E
TCK106			1	E
TCR201			1	E
TCR202			1	E
TCR203			1	E
TCR204			1	E
TCR205			1	E
TCR206			1	E
SU-209-109	12			
SN-AS1000FB	10			
YVI925	12.9			
YVIZ31	10			
VKIT100		40		
3260.003.120	12			
AF-040-HF		45		



SU-209-109



SN-AS1000FB



YVI925



YVIZ31



VKIT100



3260.003.120



AF-040-HF

ARC FLASH PROTECTION

HEAD PROTECTION

Cold protection

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	 ATPV (cal/cm²)	 ATPV (cal/cm²)	 ATPV (cal/cm²)
THKF65	13		
THKF35	13		
THKF30		33	
THKF32		33	
CN-FR891	9.2		
THTE01		38	
THT171			49.5
THT181	9.3		
THKF55	13		
THKF25	13		
THKF20		33	
TCA130		38	
TCA124		38	
TCA142	10		
CU-C215	14		
TCA132	12		
THKF45	13		
THKF15	13		
THFK10		33	
THC010		38	
THD102	10.3		
THC011	9.2		

Toques



Balaclava



Neck warmer



ARC FLASH PROTECTION

Arc flash protection

The [ASTM F887](#) standard is specifically designed to evaluate and certify the resistance of fall protection equipment (harnesses, lanyards, etc.) to the thermal hazards of an electric arc. This standard is essential for workers in environments where arc flash hazards are present, such as electrical installations. Fall protection equipment subject to this standard is exposed to an intense heat source simulating the conditions of an electric arc. The tests evaluate various criteria, including:

- * Melting and dripping: Equipment materials are tested for melting or dripping under the effect of heat, which could compromise their integrity.
- * Inflammation: Equipment is checked for ignition due to arcing.
- * Seam and fastener strength: Equipment seams and fasteners are subjected to thermal stresses to verify their strength.

Finished products, including harnesses, lanyards and accessories, are tested at an exposure level of 40 cal/cm² and assessed for melting, dripping and ignition. Drop tests are still required to ensure compliance with [CSA Z259](#) and [ANSI Z359](#) standards.

FALL PROTECTION

Harnesses / Lanyards / SRL

Touch the image to
discover the product

	Class	Length	ASTM F887
CHAE01	A		●
CHAE02	A		●
CHAE07	A		●
CHA231	ALP		●
CHAE05	AP		●
CHA258	A		●
CHA242	A		●
CCO128		4'	●
CCO127		4'	●
CCO908		4'	●
CCO112		4'	●
CDI155	SRL	8'	●
CDI120	SRL	8'	●



CHAE01



CHAE02



CHAE07



CHA231



CHAE05



CHA258



CHA242



CCO128



CCO127



CCO908



CCO112



CDI155

CDI120

ARC FLASH PROTECTION

Certifications

*Wearing appropriate protective footwear is necessary when you are exposed to the risk of foot injury in the workplace.

CSA Z195-14



This standard applies to new protective footwear, and defines two categories of toecap impact resistance. It also sets out special requirements for sole fit, metatarsal and electric shock protection, sole flexibility durability, conductivity and protective elements for chainsaw users.



Green triangle indicating that the shoe is fitted with a puncture-resistant sole and Class 1 protective toe cap (capable of withstanding impacts of up to 125 joules).



White rectangle adorned with the Greek letter omega, in orange, indicating that the shoe is equipped with an electric shock-resistant sole.



A dark gray rectangle with the letter M indicates metatarsal protection.

ASTM F2413-18



(Standard Specification for Performance Requirements for Protective Toe Footwear); this standard provides guidelines for footwear performance to ensure protection against hazards that may be encountered in the workplace.

* <https://www.cchst.ca/oshanswers/prevention/ppe/footwear.html>

Touch the image to discover the product

				
PBK001	•	•		•
PBK002	•	•		•
PBK087	•	•		•
PBR180	•	•		
PBT035	•	•		•
PBO112	•	•		•
PBS009	•	•	•	
PBK089	•	•	•	•
PBK060	•	•	•	•
PBR116	•	•	•	
PBN009	•	•	•	•
PBT034	•	•	•	•
PBC025	•	•	•	
PBCZ25	•	•	•	

No Metatarsal



Metatarsal





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