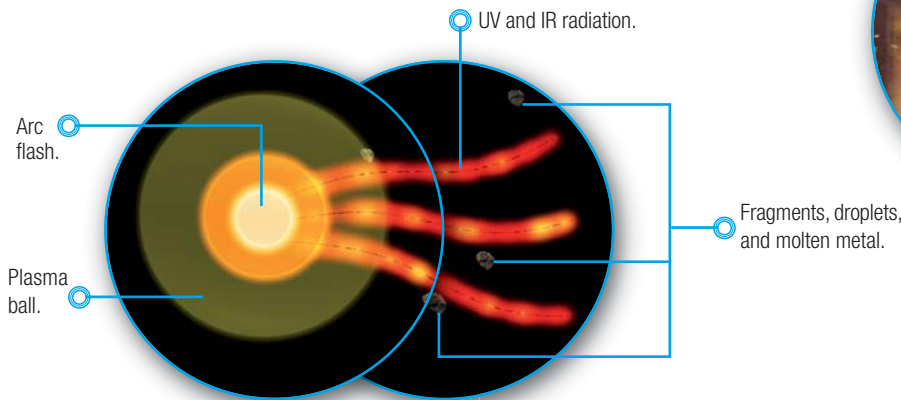


Arc Flash Protection

the solution for complete electric arc protection

The "Arc Flash" phenomenon.

An electric arc follows a short circuit. It produces nearly instant effects with serious consequences without proper protection.



- The arc's main manifestation is its thermal effect. The heat energy released, which is proportional to the voltage, intensity, and fault length, can be considerable (19,000°C), melting the metal and charring the insulation.
- Blast effect, caused by the very rapid release of energy in a limited volume of air (similar to an explosion).
- Light effect with high ultraviolet and infrared radiation.
- Ionisation effect that can trigger an arc on nearby active sections.

In addition to these effects, particles may be projected, and the metal may melt.

When electric arc danger exists, heat-resistant clothing must be worn.

The arc's characteristics are given by:

- **The resistance value of the free arc, expressed in cal/cm² according to NFPA 70 E, ASTM standards, and IEC 61482-1-1.**

or

- **The protection class (1 or 2) with a constrained arc according to IEC 61482-1-2.**



Fire-retardant clothing in case of exposure to an electric arc, confirming to **IEC 61482-2** and the regulation **NFPA 70E**.

PROTECTION AGAINST ARC FLASH

The following are used to determine the proper equipment for protecting against an electric arc:

- The maximum fault current value.
- The phase/ground rated voltage at the site of the risk.
- The distance between the source of the arc and the reception surface.
- The AC cycle number and the mono or three-phase circuit type.
- The location where the arc is produced (confined space).

After recording these parameters, we can estimate the level of risk and determine the proper protective clothing and PPE to use: **8 to 100 cal/cm² or class 1 or 2**.

For more information, please contact our technical department.



Arc Flash protection

Insulating gloves for "Arc flash" protection

Latex insulating gloves designed especially to provide electrical insulation and heat protection from an electric arc.

Arc resistance:

- 21.6 cal/cm² according to **ASTM** (F1959 and glove standard project).
- Class 1 at 150 mm and Class 2 at 300 mm according to **IEC 61482-1-2**.

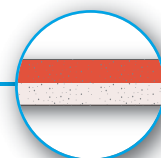
Reference	Class	Voltage	Thickness mm	Cat.	mm	g
CG-11-*	0	≤ 1000 V	1	RC	360	230

(* References to be completed by size A, B, C or D.



EN 60903 / IEC 60903
CE

Two-colour latex with a life indicator (white undercoat).



Nomex III® Undergloves

100% Nomex III® fire-resistant and heat-resistant undergloves. Protects the hands against heat of up to 100°C. Ideal protection for "arc flash" equipment.

Reference	Characteristics	Icon	g
CG-37	One size	Includes 5 pairs	32



EN 407
EN 420
CE

Fire protection.

High performance synthetic Nomex III® fibre.

"Arc flash" Gloves

Protects the hands against the heat of an electric arc of up to 65 cal/cm².

ASTM F 1506-02a standard, tests according to **ASTM F1959**.

NFPA 70E compliant.

Reference	Characteristics	g	mm
CG-65-CAL	One size	265	355



NFPA 70E

Outer layer Kevlar® with 2 layers made of Nomex® 33% of and Kevlar®.

High-Visibility "Arc flash" Parka

100% waterproof parka.

Resistant to arc flash and flames.

Ideal protection for "arc flash" equipment.

19 cal/m²

ASTMF 1891

ANSI 107 Class 3 Level 2.

Reference	Characteristics	g
M-882082	One size	924

High quality tissue.

Round neckline with a hood.

NFPA 70E

Tightening velcro.


Large pockets with a Velcro flap.

Zip closure and pressure flap.




"Arc flash" face shield kit (10 cal/cm²)


NFPA 70E

Reference	KIT-ARC-01	
Composition		1 500
M-881956	1 Face shield with chin cup 10 cal/cm ² , absorbs > 99.9% of harmful UV radiation, 70% light transmission, tested to ASTM F 2178 specifications	
MO-182/1-B	1 ABS helmet electrically insulated EN397, EN 50365, ANSI Z89.1 20kV.	
M-87384	1 carrying bag for face shield and helmet	



"Arc flash" jacket and protective overall kits (8 or 10 cal/cm²)

IEC 61482-2 
NFPA 70E

Reference	Capacity cal/cm ²	
KIT-ARC-08-C- (*) *1	8 cal/cm ²	4 100
KIT-ARC-10-C- (*) *2	10 cal/cm ²	4 200
KIT-ARC-10-J- (*) *3	10 cal/cm ²	3 075
KIT-ARC-10-JP- (*) *4	10 cal/cm ²	4 400

Composition of KITS		
M-881956	1 Face shield with chin cup 10 cal/cm ² , absorbs > 99.9% of harmful UV radiation, tested to ASTM F2178 specifications	
MO-182/1-B	1 ABS helmet electrically insulated EN397, EN 50365, ANSI Z89.1, 20kV.	
MO-11000	1 safety glasses EN 166/EN 170	
M-881960	1 arc flash protective hood (10 cal/cm ²), only with coverall.	
—	1 protective coverall 8 or 11 cal/cm ² *1, ASTM F1506 and NFPA 70E Standards or 1 arc flash protective jacket 11 cal/cm ² , ASTM F1506 and NFPA 70E Standards.	
M-87384	1 carrying bag for face shield and helmet.	
M-87295	1 all kit carrying bag.	



(*) Reference to be completed by the size M, L or XL.
Size S to 3 XL on request.

1 For reference KIT-ARC-08-C- ()

2 For reference KIT-ARC-10-C- ()

3 For reference KIT-ARC-10-J- ()

4 For reference KIT-ARC-10-JP- ()



"Arc flash" protective kits
(25, 40, 55, 65 or 100 cal/cm²)

IEC 61482-2
NFPA 70E

Reference	Capacity cal/cm ²	g	Color
KIT-ARC-25-B-(*) *1	25 cal/cm ²	6 000	KAKI
KIT-ARC-40-B-(*) *2	40 cal/cm ²	6 900	GREY
KIT-ARC-55-B-(*) *3	55 cal/cm ²	8 000	GREY
KIT-ARC-65-B-(*) *4	65 cal/cm ²	8 000	CAMEL
KIT-ARC-100-B-(*) *5	100 cal/cm ²	8 000	CAMEL

Composition

M-881968 *1 M-881961 *2 M-881973 *3 M-881976 *4 M-881979 *5	1 arc flash protective hood with an integrated face shield 25 *1, 40 *2, 55 *3, 65 *4 or 100 *5 cal/cm ² , ASTM F2178 and NFPA 70E Standards
MO-182/1-B	1 ABS helmet electrically insulated EN397, EN 50365, ANSI Z89.1 20kV.
—	1 arc flash protective bib overall 25 *1, 40 *2, 55 *3, 65 *4 or 100 *5 cal/cm ² , ASTM F1506 and NFPA 70E Standards
—	1 arc flash protective coat 25 *1, 40 *2, 55 *3, 65 *4 or 100 *5 cal/cm ² , ASTM F1506 and NFPA 70E Standards
MO-11000	1 safety glasses EN 166/EN 170
M-87384	1 carrying bag for face shield and helmet
M-87295	1 all kit carrying bag



(*) Reference to be completed by the size M, L or XL.
Size S to 3 XL on request.

- *1 For reference KIT-ARC-25-B-(*) , kaki outfit.
- *2 For reference KIT-ARC-40-B-(*) , grey outfit.
- *3 For reference KIT-ARC-55-B-(*) , grey outfit.
- *4 For reference KIT-ARC-65-B-(*) , brown/camel outfit.
- *5 For reference KIT-ARC-100-B-(*) , brown/camel outfit.



KIT-ARC-25-B-(*)

KIT-ARC-40/55-B-(*)

KIT-ARC-65/100-B-(*)