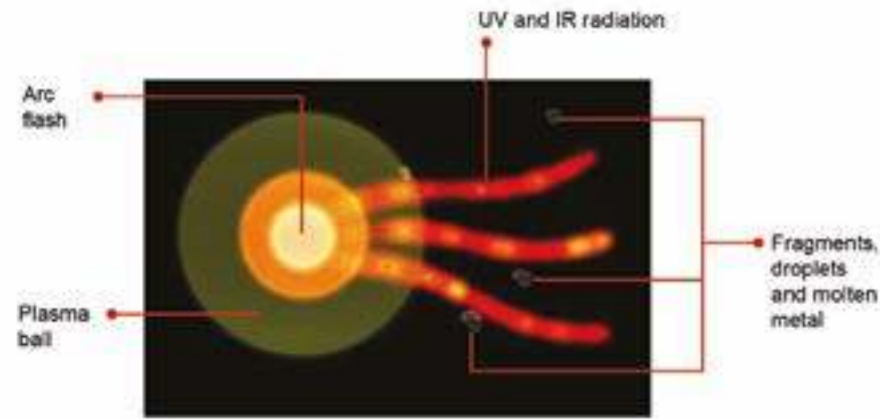


## Arc Flash

### ■ 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



### ■ 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 of 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/cm<sup>2</sup> or class 1 or 2.**

For more information, please contact our technical department.



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/cm<sup>2</sup> 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**.

## Arc Flash

### ■ Light Duty Coverall Kits - 12 Cal

#### KIT ARC-A-02\*

Complete set with CAT ARC garments and the most ergonomic solution for face and head protection.

#### AFG\*

Arc flash and multirisk protection clothing; jacket and trouser, coverall, switching jacket.



TO PLACE AN ORDER	KIT-ARC -A-02-JP*1	KIT-ARC -A-02-C*1	AFG-2000-*2	AFG-2001-*2	AFG-1001-*2	AFG-2300-*1
Jacket	X		X			
Trouser	X			X		
Coverall		X			X	
Switching Jacket						X
Electrician helmet with integrated arc flash visor M0-180-ARC-12 with storage bag M-87384	X	X				
Carrying bag M-87295	X	X				

To be completed by the size: \*1 S, M, L, XL, 2XL / \*2 XS, S, M, L, XL, 2XL, 3XL, 4XL, 5XL

### Certification

NFPA 70E  
ASTM F1559



ATPV  
12 CAL/CM<sup>2</sup>

### Fabric

80% flame retardant treated cotton, 19% polyester, 1% anti-static fibres - twill - 300g/m<sup>2</sup>.

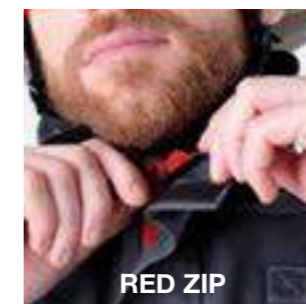
### Models

Kits, jacket, trouser, coverall and switching jacket.



ANTI-PANIC ZIP

To remove the jacket immediately after an accident occurring



RED ZIP

To ensure the PPE is closed and secure



REINFORCEMENTS

To maximise useful life



STANDARD PICTOGRAMS

Easy identification of protection standard

## Arc Flash

### ■ Arc Flash Protective Kits (25, 40, 55, 65 or 100 cal/cm<sup>2</sup>)

- 25 to 100 cal/cm<sup>2</sup> ATPV rating
- In conformity with ASTM specifications F1959 and ASTM F1506
- Made from arc flash resistant Ultra Soft
- Sewn with Nomex thread
- FR components
- Comfortable, quick disconnect, easy adjust shoulder straps
- FR velcro fly closure and FR velcro calf closure for easy boot entry.
- **See page 6 for Arc Flash Gloves**

Product Number	Capacity cal/cm <sup>2</sup>	Weight (g)	Colour
KIT-ARC-25-B-(*) *1	25 cal/cm <sup>2</sup>	5000	KAKI
KIT-ARC-40-B-(*) *2	40 cal/cm <sup>2</sup>	6900	GREY
KIT-ARC-55-B-(*) *3	55 cal/cm <sup>2</sup>	8000	GREY
KIT-ARC-65-B-(*) *4	65 cal/cm <sup>2</sup>	8000	CAMEL
KIT-ARC-100-B-(*) *5	100 cal/cm <sup>2</sup>	8000	CAMEL

Composition of KITS	
M-881968 *1 M-881961 *2 M-881973 *3 M-881976 *4 M-881979 *5	1 x arc flash protective hood with an integrated face shield 25 *1, 40 *2, 55 *3, 65 *4 or 100 *5 cal/cm <sup>2</sup>
MO-182/1-B	1 x ABS helmet electrically insulated EN397, EN 50365, ANSI Z89.1 20kV
...	1 x arc flash protective bib overall 25 *1, 40 *2, 55 *3, 65 *4 or 100 *5 cal/cm <sup>2</sup>
...	1 arc flash protective coat 25 *1, 40 *2, 55 *3, 65 *4 or 100 *5 cal/cm <sup>2</sup>
MO-1100	1 x safety glasses EN 166/EN 170
M-87384	1 x carrying bag for face shield and helmet
M-87295	1 x 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



## Arc Flash

### ■ Arc Flash Helmet

Safety industrial helmet with ARC FLASH integrated face shield. Shockproof for the head, insulating protection of the shell and eyes and face protection of thermal effect due to an arc.

#### Shell:

- IEC 397 440V
- EN 50365 1000V AC, 1500V DC
- High density polypropylene helmet
- Adjustable size from 53 to 62cm, adjustment of head rim at 5mm intervals
- Textile chin-strap with clip
- ANSI Z 89.1/2003, Class E 20 000V
- IEC 61482-1-2 class E 2 (7kA-500ms, 300mm - Energy 10.185 cal/cm<sup>2</sup>) GS-ET 29

Product Number	Description
MO-180-ARC	Arc Flash Helmet

### ■ Arc Helmet Bag

Bag to suit MO-180-ARC arc flash helmet.

Product Number	Description
ARC-BAG-HELMET	Arc Flash Helmet Bag

### ■ Balaclavas

- Arc rating: 12 cal/cm<sup>2</sup>
- CAT 2
- Fabric/material: 6.5 oz. Westex® UltraSoft® Rib
- Designed for use with Arc Goggles
- Flat lock seam for comfort when worn under a hard hat
- Designed for comfort and flexibility
- FR fabric will not melt, drip or ignite
- Inherently flame resistant, FR protection will not wash/wear out
- Lightweight, breathable and durable fabric.

Product Number	Colour	Cal/cm <sup>2</sup> Rating
ARC-H85FK	Navy	4
ARC-H11RY	Navy	12
ARC-H11RV	Navy	20

