

ARC FLASH PROTECTION



TECHNICAL DETAILS

WHAT IS ELECTRICAL ARC?

An electric arc, or arc discharge, is a high-current electric discharge that occurs between two conductors in the presence of an ionized gas or vapor. When the electrical current bridges an air gap between conductors or ground, it creates a continuous plasma discharge, producing intense heat and light. This phenomenon is often accompanied by a hissing or crackling noise and is commonly seen in welding processes, electrical breakdowns, or short circuits.

Electric arcs can be highly dangerous. The temperatures can reach up to 35,000°F (19,426°C), causing severe burns and even explosions. These arcs produce ultraviolet (UV) and infrared (IR) radiation, which can damage eyes and skin, along with a pressure wave that can cause hearing damage and trauma from the blast force.

In safety contexts, such as with protective equipment:

Arc Flash Protection:

Workers exposed to high & Low-voltage equipment must wear arc-rated clothing to protect against the extreme heat and energy released during an arc event.

Insulated gloves with Arc Flash Protection:

Specially insulated electrical gloves with Arc Flash Protection help protect against electric arcs, reducing the risk of electrical injury.

The goal in electrical safety is to prevent arcing incidents or, if they occur, to have protective measures that reduce harm to individuals.

HAZARD RELATED TO ELECTRICAL ARC FLASH

Arc flash hazards in industrial settings can be severe and are among the most dangerous electrical risks. An arc flash occurs when an electrical current flows through the air between conductors, releasing intense heat and energy that can lead to serious injury or death. Here are some key hazards associated with arc flash in industries:



Intense Heat



Explosive Pressure Waves



Sound and Noise Hazards



Toxic Fumes and Vapors



Blinding Light and Ultraviolet Radiation



Damage to Equipment



Electrical Shock



For mitigating arc flash hazards, industries often employ proper Personal Protective Equipment (PPE), such as arc-rated clothing, gloves, face shields, and tools designed to withstand high voltages. Additionally, establishing an arc flash hazard analysis, regular training, equipment maintenance, and clear safety protocols are essential steps to minimize risks and ensure the safety of workers.

TECHNICAL DETAILS

WHY SHOULD WE CHOOSE THE ARC FLASH PROTECTIVE GARMENT?

Choosing arc flash protective garments is crucial for safeguarding workers in industries exposed to electrical hazards, especially where arc flashes are a risk. Here are some reasons why selecting these specialized garments is essential:

- | | | | |
|--|------------------------------------|---|----------------------------------|
|  | High Protection from Severe Burns |  | Compliance with Safety Standards |
|  | Prevention of Secondary Injuries |  | Minimizes Long-Term Health Risks |
|  | Comfort and Functionality |  | Cost Savings in the Long Run |
|  | Employee Morale and Safety Culture | | |



RAYCHEM RPG KAMFET RANGE OF ARC FLASH PROTECTIVE GARMENTS UNMATCHED SAFETY AND PERFORMANCE

Raychem’s arc flash protective garments offer an exceptional level of safety with key features like inherent flame resistance, thermal protection performance, crack resistance, and anti-static properties, ensuring reliable and lasting protection for workers in high-risk environments.

- | | | | |
|---|--------------------------------|---|---|
|  | Inherent Flame Resistance |  | Protection and Comfort |
|  | Thermal Protection Performance |  | Built-in Protection |
|  | Anti-Static Properties |  | Built to Withstand Tough Laundry Conditions |
|  | Strength and Tear Resistance | | |



TECHNICAL DETAILS

ARC FLASH CLOTHING: 8 CAL / CM²

Introducing the revolutionary **Raychem RPG Kamfet Arc Flash** series, setting the benchmark in advanced protective garments. Crafted with precision engineering, these garments are lightweight and durable and meticulously designed to exceed all compliance standards and regulations. With our innovative technology, experience the epitome of safety, comfort, and style. Our garments are engineered for breathability and optimal fit, ensuring maximum comfort without compromising protection.

Step into a world where protection meets performance with the Raychem RPG Kamfet Arc Flash series. Embrace a new standard of safety apparel and feel the tangible difference. Join us in redefining the boundaries of protection and style. Arc flash PPE constitutes the essential protective gear donned by workers engaged in maintenance tasks on energised and de-energized equipment. As the ultimate safeguard, it shields workers from potential arc flash injuries. This specialised equipment encompasses various items such as arc-rated clothing, ranging from flame-resistant coveralls and coats to complete suits and kits, rubber insulating gloves and Hoods face shields.

Key Features

- Inherent Flame-Retardant material
- Fabric Composition: 49% Modacrylic, 45% Cellulose, 5% Para-Aramid, 1% Anti -Static
- Permanent flame-resistant performance will not be washed out or worn away.
- Durable with a long life, its inherent permanent protection will not degrade by washing or wearing.
- More breathable & comfortable
- Tested: ASTM F2621/F2621M-22
- ATPV Rating: 8 Cal/cm²
- Meeting the NFPA70E- HRC 2
- Lightweight: 240 g/m²

Applications

Daily workwear designed for intensive use is essential for electricians to protect against ARC Flash hazards encountered during the Installation, Operation, and maintenance of electrical equipment.

Performance Standards & Regulatory Compliance

ASTM F2621/F2621M-22 &
Meet the standard of NFPA 70E



HRC

2



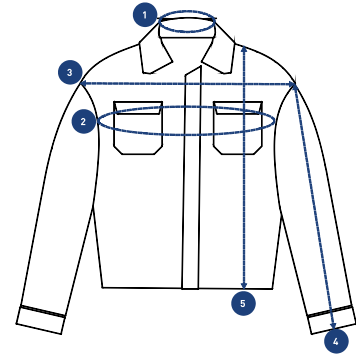
Specifications

- Colour: Orange/Blue & Blue
- Sizes: XS to XXXL
- Washing: Please refer to the Washing Guideline
- Packing: One Shirt in Polybag

TECHNICAL DETAILS

Size Measurement Chart (Shirt / Jacket)

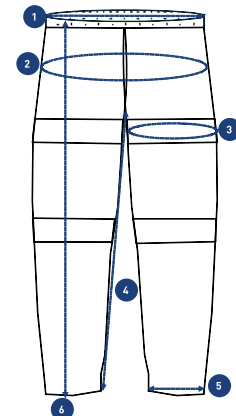
All dimensions are in Inch						
Size in Inch	1	2	3	4	5	Tolerance
	Collar	Chest	Shoulder	Sleeves	Length	
XS	17	36	16.5	23.5	28	2%
S	17.5	38	17	24	29	2%
M	17.5	40	17.5	24.5	30	2%
L	18	42	18	25	30	2%
XL	18	44	18.5	25.5	31	2%
XXL	18.5	46	19	26	31	2%
XXXL	18.5	48	19.5	26.5	32	2%



Size Measurement Chart (Pant / Over Pant)

All dimensions are in Inch							
Size in Inch	1	2	3	4	5	6	Tolerance
	Waist *	Hip	Thigh	Inseam	Leg opening	Length	
XS	26	32	22	27.5	13.5	39	2%
S	28	34	23	28	14	40	2%
M	30	36	24	29	14.5	41	2%
L	32	38	25	30	15	42	2%
XL	34	40	26	30	15.5	42	2%
XXL	36	42	27	31	16	43	2%
XXXL	38	44	28	31	16.5	43	2%

* The waist is elasticated and can be stretched by up to 2 inches for a better fit, ensuring enhanced comfort and adaptability.



Care & Washing Instructions

- Before each use, carefully inspect the garment for any damage or contaminants that may compromise its protective qualities.
- Clean the garment thoroughly using detergent only; avoid using softeners or starch.
- Do not wash the PPE in temperatures exceeding 50°C.
- Avoid using chlorine bleaches (containing sodium hypochlorite), oxygen bleaches (like hydrogen peroxide), or soaps (fatty acid salts) to wash the PPE, as they may impact its protective properties.

Warranty

- Every new product is guaranteed to be devoid of defects in material and/or craftsmanship.
- Raychem RPG's obligation is restricted to either repairing or replacing any product, at its discretion, for a duration of 12 months following shipment in the event of any material or craftsmanship flaw.
- All other warranties, whether explicit or implied, such as merchantability and fitness warranties are not applicable.
- The lifespan of an arc protective kit depends on its type, environmental factors, contamination, and product degradation. It is crucial to select an arc protective kit appropriate for the specific hazard and environmental conditions.

CATALOGUE INFORMATION



Arc Flash Clothing-IFR-8 Cal/Cm2 - Jacket Bi-Colour - Orange and Blue with Reflective

Ordering Code	Product Code	Size	Colour
DEA0031010	ESAF8J-OB-R-S	S	Orange & Blue With Reflective
DEA0031011	ESAF8J-OB-R-M	M	
DEA0031012	ESAF8J-OB-R-L	L	
DEA0031013	ESAF8J-OB-R-XL	XL	
DEA0031014	ESAF8J-OB-R-XXL	XXL	
DEA0031033	ESAF8J-OB-R-3XL	3XL	

Arc Flash Clothing-IFR-8 Cal/Cm2 - Jacket Blue With Reflective

Ordering Code	Product Code	Size	Colour
DEA0031028	ESAF8J-B-R-S	S	Blue With Reflective
DEA0031029	ESAF8J-B-R-M	M	
DEA0031030	ESAF8J-B-R-L	L	
DEA0031031	ESAF8J-B-R-XL	XL	
DEA0031032	ESAF8J-B-R-XXL	XXL	
DEA0031048	ESAF8J-B-R-3XL	3XL	

Arc Flash Clothing-IFR-8 Cal/Cm2 - Shirt Blue

Ordering Code	Product Code	Size	Colour
DEA0031061	ESAF8S-B-S	S	Blue
DEA0031062	ESAF8S-B-M	M	
DEA0031063	ESAF8S-B-L	L	
DEA0031064	ESAF8S-B-XL	XL	
DEA0031065	ESAF8S-B-XXL	XXL	
DEA0031066	ESAF8S-B-3XL	3XL	

Arc Flash Clothing-IFR-8 Cal/Cm2 - Pant Blue with Reflective

Ordering Code	Product Code	Size	Colour
DEA0031015	ESAF8P-B-R-S	S	Blue With Reflective
DEA0031016	ESAF8P-B-R-M	M	
DEA0031017	ESAF8P-B-R-L	L	
DEA0031018	ESAF8P-B-R-XL	XL	
DEA0031019	ESAF8P-B-R-XXL	XXL	
DEA0031034	ESAF8P-B-R-3XL	3XL	

Arc Flash Clothing-IFR-8 Cal/Cm2 - Pant Blue

Ordering Code	Product Code	Size	Colour
DEA0031067	ESAF8P-B-S	S	Blue
DEA0031068	ESAF8P-B-M	M	
DEA0031069	ESAF8P-B-L	L	
DEA0031070	ESAF8P-B-XL	XL	
DEA0031071	ESAF8P-B-XXL	XXL	
DEA0031072	ESAF8P-B-3XL	3XL	



Arc Flash Kit -IFR-8 Cal/Cm2 - HRC 2-Jacket, Pant, Hood with Helmet, Safety Glass, and Storage Bag - Colour - Blue

Ordering Code	Product Code	Size	Colour
DEA0031093	ESKJP8-S	S	Blue
DEA0031094	ESKJP8-M	M	
DEA0031095	ESKJP8-L	L	
DEA0031096	ESKJP8-XL	XL	
DEA0031097	ESKJP8-XXL	XXL	
DEA0031098	ESKJP8-3XL	3XL	

Arc Flash Kit -IFR-8 Cal/Cm2 - HRC 2-Shirt, Pant, Hood with Helmet, Safety Glass, and Storage Bag Colour - Blue

Ordering Code	Product Code	Size	Colour
DEA0031114	ESKSP8-S	S	Blue
DEA0031115	ESKSP8-M	M	
DEA0031116	ESKSP8-L	L	
DEA0031117	ESKSP8-XL	XL	
DEA0031118	ESKSP8-XXL	XXL	
DEA0031119	ESKSP8-3XL	3XL	



Arc Flash Protection Face Shield -13 Cal/Cm2

Ordering Code	Product Code	Information
DEA0030010	ESFS13C	Without Hard Hat
DEA0030002	ESFS13C-HAT	With Hard Hat
DEA0031112	ESFK13	With Hard Hat & Balaclava
DEA0031111	ESAFH10	Balaclava - 12 Cal/Cm²